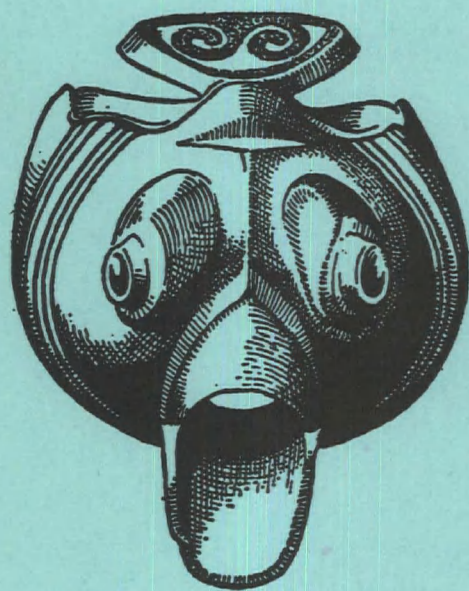


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VOLUME 5 1970

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Volume 5 1970

EDITED BY
DAVID H. KENNETT

THE BEDFORDSHIRE ARCHAEOLOGICAL COUNCIL
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Ruxox Farm, Maulden

1. The Prehistoric Finds

KEVAN FADDEN

RUXOX FARM was centred round a fine moated enclosure (TL/048360) which in Medieval times surrounded the Augustine Priory of Ruxox (Horricks Oak), a small cell of Dunstable Priory founded in 1140. The land in this area is now divided into market garden small holdings, but for the purpose of these reports will be treated as a whole.

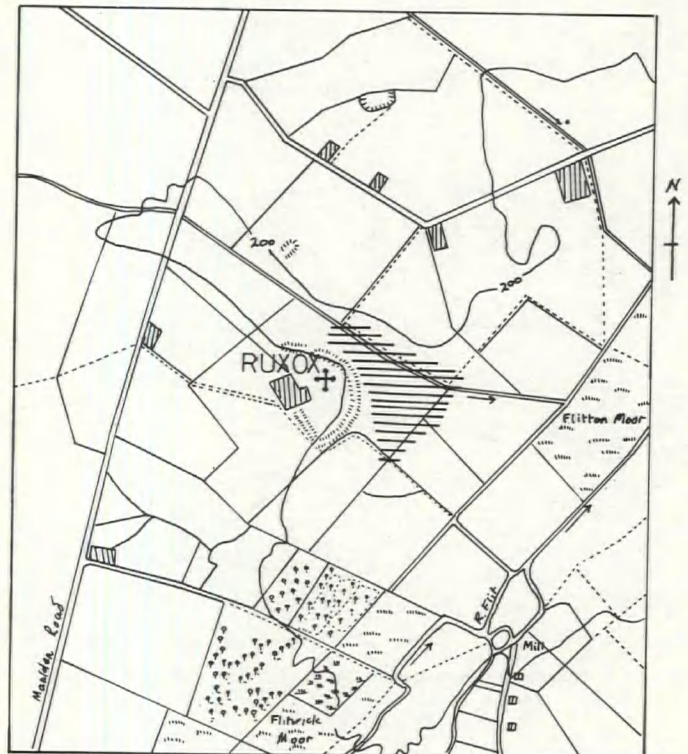
This area under the plough has for many years yielded prehistoric flints, Roman coins, pot sherds and artifacts of the Medieval period. Some of these items have been handed to Luton and Bedford museums; but most have been lost and little is

known about them. Fortunately Mr J Course, who farmed the land during the 1960's possesses a keen interest in archaeology and has found many objects which he has carefully preserved. The flints discussed here are from his collection. The Roman and later periods will be the subject of future reports.

Physical Features

Geographically Ruxox lies at the junction of the lower greensand ridge and the alluvium of the Flit valley. Two distinct soil types arise from these

Fig 1 The location of Ruxox Farm, Maulden.



0 500 yards

Main collection area
of flint finds.

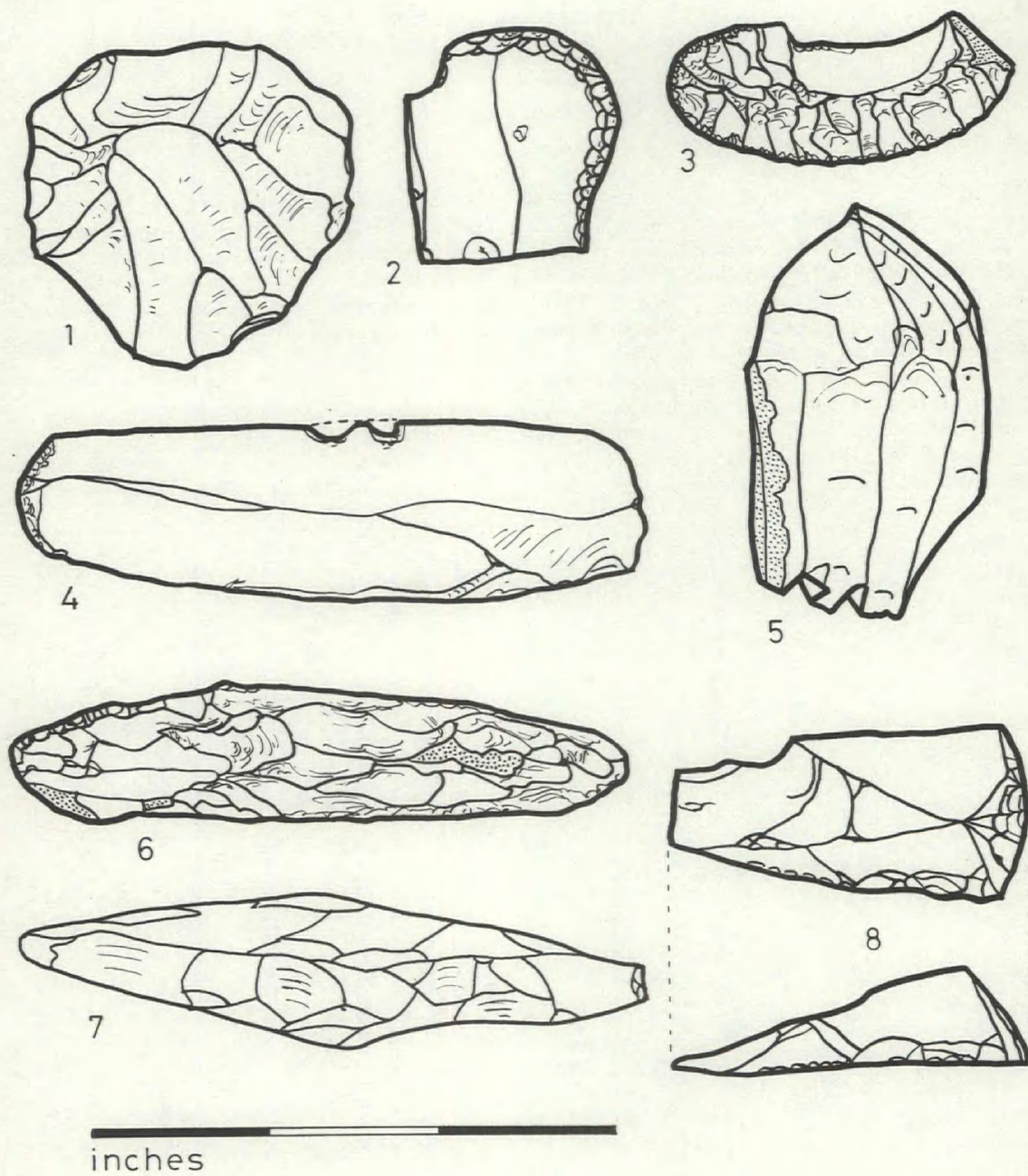


Fig 2 Flints from Ruxox Farm (1-8) (Full Size).

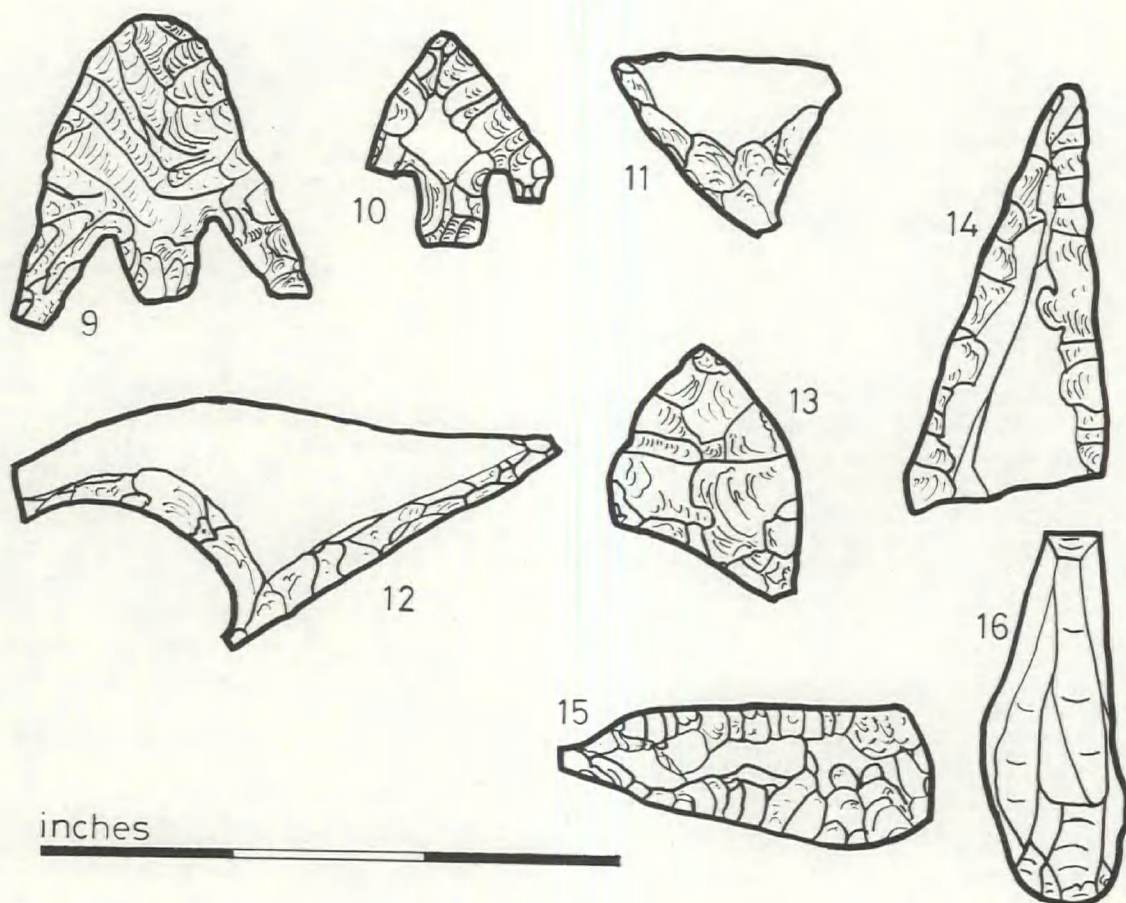


Fig 3 Flints from Ruxox Farm (9-16) (Full Size).

parent materials. On the greensand a freely drained loam occurs with a finely developed soil structure, whereas a calcereous gley overlaying an almost impervious plastic clay is associated with the alluvium (D W King *Soils of the Luton and Bedford District* (1969)). The effects of these two conditions can be seen in the modern agriculture and the natural vegetation of the area. The poor drainage of the alluvium has produced marshy areas and caused a heavy deposit of peat, which was dug commercially until recent years (*Beds. Mag.* 11 (1967-69) 185-189). Indications are that the drainage has deteriorated since the 3rd century A.D., as Roman floors have been found twelve inches below the present water table and in another part of the site Roman artifacts have been found below a layer of peat. Until recently

very little was grown on the alluvium, but modern deep ploughing and drainage is reclaiming some of the land. The soil of the greensand is very fertile and easily worked. It is however prone to erosion by the strong winds which prevail in this exposed area. Sections taken through Roman occupation areas have shown wind deposited materials, which suggest similar cultivated soil conditions in the 3rd Century A.D. The alluvium joins the greensand just below the 200' contour shown on the map and it was on this line where most of the flint artifacts were found (See fig. 1).

Flint Finds. (Figs. 2 and 3)

1. Microlithic core, black translucent, unworn.
2. Broken black translucent blade, retouched one end and one side to make scraper, un-

- worn.
3. Unifacially worked artifact, black translucent, unworn.
 4. Neolithic blade, slight white patina, unworn, retouched at one end, but recently damaged on long side.
 5. Bipolar black translucent flint core.
 6. Bifacially worked grey opaque fabricator unworn.
 7. Bifacially worked grey opaque fabricator worn at one end.
 8. Steeply corinated black translucent unworn flint scraper.
 9. Barbed and short tanged arrowhead, bifacially worked, light brown translucent unpatinated, unworn, one barb broken (Early Bronze Age).
 10. Petit tranchet derivative arrowhead, black translucent, unpatinated, unworn.
 11. Petit tranchet derivative arrowhead, black translucent, unpatinated, unworn (?Neolithic).
 12. Bifacially worked translucent light brown unpatinated leaf shaped arrowhead, broken (?Neolithic).
 13. Unifacially worked black translucent blade, unifacially retouched on two sides, unpatinated unworn (?arrowhead).

14. Unifacially retouched flint blade, black translucent, unpatinated.
15. Opaque slightly patinated flint flake retouched to make end scraper.

Also in collection but not illustrated. One Neolithic ground stone axe, white patinated, broken. One Microlithic core and three struck flakes.

Conclusions

The desirability of this site to man since early times can be appreciated when the physical features are considered. Indications suggest a rich lightly forested area in Mesolithic times, with a larger river than today providing water and attracting animals for hunting. During the introduction of early farming the greensand would have been easily cleared and the light fertile soil ideal for cultivation for primitive tools.

No Neolithic or Bronze Age pottery has been found to date on this site and no signs of their living areas. This is not surprising in view of the light easily eroded soil where artifacts of all periods continually arrive on the land surface.

Acknowledgements

I am grateful to Mr. J. Course who allowed me to view and record his flint finds also to Mr J R S Higham who drew them.

A Lost Collared Urn from Kempston

DAVID H KENNETT

Summary

Publication of a collared urn known only from a watercolour illustration is accompanied by illustration of all known collared urns from the immediate vicinity of Kempston, Bedford and Elstow.

Figure 1 (right) has been traced and reduced from plate 44 of the watercolour notebook of T Gwyn Elger, now in Bedford Museum, entitled *Sketches of Antiquities found in Kempston, Bedford and District, 1888-1889*. The volume has illustrations of a wide range of objects found in the late 1880's and includes illustrations of several objects now in Bedford Museum. The collared urn, however, is not among these. It has been assumed that the original illustration was at half scale as the drawings of extant pots in Elger's notebook are at half scale. By a reduction of this drawing to half of its original size, the conventional scale of a quarter for pottery drawings has been achieved. We know from comparing extant pots with Elger's drawings that T Gwyn Elger was an accurate recorder of material. He is therefore unlikely to have missed important detail such as extra rows of decoration. As it is depicted, this urn has two rows of incised decoration on the collar forming a herringbone pattern. There are also two rows of diagonal incised decoration on the neck but these are separated by a wide plain space. The watercolour is in a deep red-brown wash, doubtless reflecting the deep red-brown surface colouring typical of so many collared urns. If the supposition about scale is correct, the urn would have been 29.0 cm high, with a rim diameter of 20.0 cm and a basal diameter of 9.0 cm.

This is the fifth collared urn to be recorded from Kempston. As the other four are scattered in their publication, if published at all, it seemed worthwhile to illustrate them all here (figs 2 and 3.2,4-5) together with other collared urns from the villages near Bedford (fig 3.6-8).

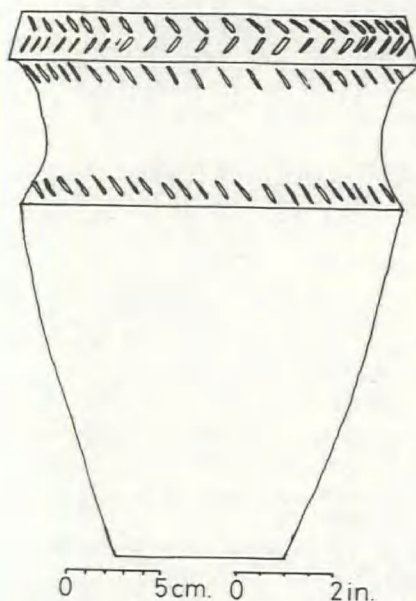


Fig 1 Collared Urn from Kempston (after Elger).

Also found at Kempston in the late 1880's is the only well-known urn among the others. This is now in the British Museum (accession number 1893, 5-17, 1) who acquired it from the Rev. Leonnard Hassé. Hassé had earlier presented some objects from the Anglo-Saxon cemetery at Kempston which he purchased at Dr Couch's sale in 1891. However, it is not known how he acquired the collared urn. The vessel has previously been illustrated by Abercromby and in the catalogue of the Victoria and Albert Museum's exhibition of English Prehistoric Pottery in 1952. The British Museum pot (fig 3.2) is red surfaced on the exterior but black on the interior. It is 20.7 cm high and has a rim diameter of 17.0 cm. Despite its obvious similarity to the lost vessel, it is clear that the British Museum pot is not that illustrated in Elger's notebook. Firstly the two vessels have markedly different decorative schemes. Also Elger's illustration shows an urn without the

markedly convex collar of that in the British Museum. Like the lost vessel, that in the British Museum has incised decoration and is deep red-brown in colour.

The British Museum vessel is a good example of Longworth's primary series of collared urns—(Longworth, 1961, 264-266). Two others of the collared urns from Kempston were listed in Longworth's study. One of these is now in the City Museum and Art Gallery, Bradford, (fig 2). This is a vessel reconstructed from many sherds and recently restored by the Yorkshire Museum and Art Gallery Service. This vessel was given to Bradford Museum by a Mr Cudworth but its previous history is unknown. Both the internal and external decoration is in plaited cord.

Also of Longworth's primary series is one of the two collared urns from Kempston in Bedford Museum (accession number 3224; fig 3.4). This fragmentary urn has a deep red external surface with six rows of incised herringbone decoration in two groups of three rows: one on the collar, the other at the base of the neck and just below the shoulder. In his appendix, listing all the known primary series urns, Longworth suggested that this vessel had a base of less than 35% of the greatest diameter. From the reconstructed drawing it will be seen that this is unlikely.

The final collared urn from Kempston (fig 3.5) is also in Bedford Museum (accession number 3445). This large vessel was found in 1863 on the Hill Grounds Estate, adjacent to the river Ouse. It later became the property of Mrs Charles-Williamson, a friend of the Rev. P.G. Langdon, curator of the Pritchard Museum of Bedford Modern School, 1919-1933. It was presented to that museum before 1925 when it was used as the central item in the Bronze Age plate of the *Bedford Modern School Museum Guide*. This vessel is red-brown and remarkably complete. On the concave collar there are five horizontal rows of cord impressions while the neck and shoulder are decorated with four rows of hooped decoration made with the end of a stick. Despite the year of its discovery this urn has no connection with the Anglo-Saxon cemetery found in 1863-65. The Hill Grounds Estate, in fact, is half a mile north of the area where the cemetery was found.

Foulke's gravel pit, on the other hand, is immediately to the north of the area behind the present Junior School, quarried for gravel in 1863-65, which produced the important Anglo-



Fig 2 Collared Urn from Kempston in Cartwright Museum, Bradford (¼).

Saxon cemetery. The cemetery (NGR TL/031474) is mainly to the south of the road leading through the village to Kempston church but it is clear from the incidence of finds made in 1888 at Foulke's gravel pit that the cemetery extended north of the road. Among Anglo-Saxon urns found in 1888 are some now in Bedford Museum and illustrated in Elger's notebook. Two extant collared urns from Kempston (fig 3.2 and fig 3.4) have their recorded provenance as 'Foulke's gravel pit' and it is perhaps most likely that the lost vessel was also found there. It is also quite possible that these Bronze Age urns are from a barrow or barrows around which the Anglo-Saxon cemetery was later laid out, but the contemporary record of the discovery both of the cemetery and of the urns is insufficient to be certain of this. It can, however, be advanced that the area had a powerful local tradition as a burial place for there is also in the vicinity one, and possibly two, early Romano-British cemeteries that may continue the well-known grave circle of the pre-Roman Iron Age.

The concentration of collared urns from Kempston is one of a number of such groups from the middle Ouse. Two primary series urns from Tyingham, Bucks., are illustrated by Longworth (1961, 296, nos. 103 and 104, fig. 10) and there is the sherd of another from Newport Pagnell, now in Aylesbury Museum, (Longworth, 1961, 296, no. 102). Sandy has produced a later type: a vessel now in the Pitt-Rivers Museum, Farnham, Dorset, (Abercromby, 1912, no. 91). Three vessels from locations much nearer Kempston are illustrated here (fig 3.6-8).

One of these is now represented by three large sherds in Bedford Museum (accession numbers

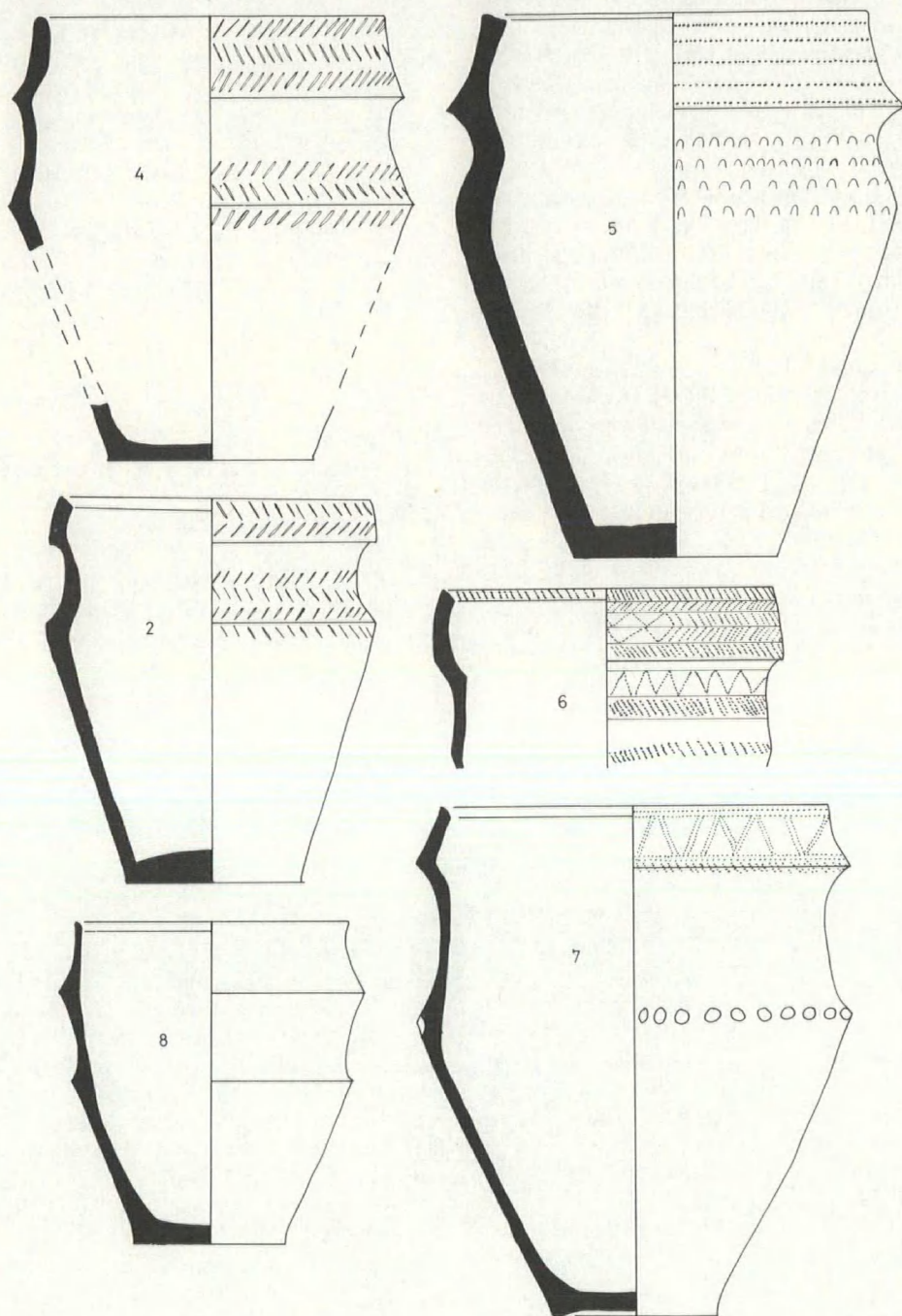


Fig 3 Collared Urns from Kempston (2, 4, 5), Newnham (6), Elstow (7), and Harrowden (8) (¼).

3449, 3450, 3451). These were found at Newnham Walls Field, east of Bedford, and are collar and body sherds of a vessel with a light brown surface decorated with impressed cord (fig 3.6). On one sherd the change from continuous herringbone to herringbone mixed with a diamond pattern can be seen thus confirming that the sherds most probably came from the same vessel.

The large vessel from Elstow (fig 3.7) is decorated in impressed cord on the concave rim and has the unusual feature of a row of pinched ornament on the shoulder. This vessel is in Bedford Museum (accession number 3452) but its history is unknown.

The final vessel illustrated is also in Bedford Museum (accession number 3453). It was found on 26 May 1926 as an accessory vessel to an inhumation at New Harrowden, Cardington. This plain vessel (fig 3.8) is perhaps the latest of the collared urns illustrated in this note.

This note has, one hopes, served not only to provide illustrations of the collared urns from Kempston and adjacent villages but also to emphasise the importance of the area for the study of the early second millennium B.C. in the middle Ouse valley.

Appendix

Previous Publication of the collared urns

Vessel	Museum & No	Publication
1	Lost	T G Elger's notebook
2	British 1893,5-17,1	Abercromby, 1912, no. 65. <i>English Prehistoric Pottery</i> (1952) no. 13 Longworth, 1961, 296, no. 105 Thomas, 1964, 30, no.7
3	Bradford	Longworth, 1961, 296, no. 106. Thomas, 1964, 31, no. 10.
4	Bedford 3224	Longworth, 1961, 296, no. 107 Thomas, 1964, 31, no.9

5	Bedford 3445	<i>B.M.S.M.G.</i> pl. 7 top centre Thomas, 1964, 31, no.8
6	Bedford 3449, 3450, 3451	<i>B.M.S.M.G.</i> pl. 7 bottom left and right Longworth, 1961, 296, no. 108 Thomas, 1964, 31, no. 14
7	Bedford 3452	<i>B.M.S.M.G.</i> pl. 7 top left Thomas, 1964, 31, no. 13
8	Bedford 3453	Thomas, 1964, 31, no. 12

Bibliography

- Abercromby, 1912, *Bronze Age Pottery*—references to volume 2
B.M.S.M.G., Bedford Modern School Museum Guide (1925)
 Longworth, 1961, 'The Origins and Development of the Primary Series of the Collared Urn Tradition in England and Wales' *P.P.S.* 27 (1961) 263-306.
 Thomas, 1964, 'A Gazetteer of Neolithic and Bronze Age sites in Bedfordshire' *Beds. Arch. J.* 2 (1964) 16-33)

Acknowledgements

For access to T Gwyn Elger's notebook and for permission to illustrate the urn depicted therein as well as for study facilities at Bedford Museum and permission to publish its vessels, I wish to thank Mr F W Kuhlicke, curator. Dr I A Longworth was kind enough to advise me on the British Museum vessel which is illustrated by kind permission of the Trustees. Figure 2 was kindly provided by Bradford City Museum, per Mr S W Feather, and drawn by Mr S Moorhouse. To both I extend my grateful thanks. Professor R J C Atkinson read this note in an early draft and I am grateful for his comments.

The Bedfordshire Archaeological Council is indebted to Bedford Corporation for a grant towards the costs of this paper.

The Late Pre-Roman Iron Age Bronze Mirror from Old Warden

MANSEL SPRATLING

SUMMARY

The late pre-Roman Iron Age mirror from Old Warden (now in Bedford Museum) is described in detail, with particular regard to its workmanship. The forms, workmanship, ornament, and dates of manufacture of this and other mirrors are reconsidered. The multiple-looped mirror-handles are seen to be Italian in origin, while the single-looped form is shown to be a British innovation. The difference between them is probably cultural rather than chronological. The contexts of the Birdlip, Colchester, Nijmegen, and St Keverne mirrors are shown to be first-century AD. The "typological" method of analysing pre-Roman Celtic art in Britain is challenged, and it is suggested that more account should be taken of individual experimentation by contemporary smiths.

THE BRONZE MIRROR with abstract curvilinear ornament from Old Warden (Beds.), now in Bedford Museum (No. 1720), was discovered by labourers making excavations for the Warden tunnel (TL(52) 1144; O.S. 6 in. sheet TL 14 SW) on the Midland Railway line, now disused, that ran from Bedford to Hitchin. Neither the date nor the exact place of discovery were recorded, but it must have been during the mid-1850's, since the railway line was constructed between 1853 and 1857 (Stretton 1901:155-6). The mirror was exhibited to the Society of Antiquaries on 5 December 1860, by AW Franks who was unsure whether it "had served as a mirror, or as a large pendant for decorating the front of a horse" (*Proc. Soc. Antiq. London*, 2nd ser., 1(1859-61): 263). This doubt as to its use probably partly arose from the fact that at the time only one other late pre-Roman Iron Age mirror was known to the archaeological world, the one now known as

the 'Mayer' mirror, which had been exhibited to the same Society on 16 November 1854 (*Proc. Soc. Antiq. London*, 1st ser., 3(1853-56:118). Our very limited knowledge of the circumstances of the discovery is based on the comments of the mid-Victorian Bedfordshire antiquary, James Wyatt, incorporated in an essay published in 1869 (Way 1869:71). James Wyatt had reason to believe that "Roman coins and portions of large amphorae" were found with the mirror. These were "speedily dispersed and sold by the navvies", but the mirror, broken and considered worthless, was not sold, and was recovered by the Rev. G. Mellor who presented it to the Museum of the Bedfordshire Architectural and Archaeological Society. A "large bronze pan" was also stated to have been found at the same time, but its relationship to the mirror was not recorded. Although we do not know what the precise nature of the find was, it is quite likely, as Fox has conjectured (1923:99), that it was a burial, since both amphorae and mirrors are often found in burials (for amphorae in burials, see Stead 1967:44ff.).

The Old Warden mirror (Fig 1; Pl.1) is made of a copper-base alloy, probably bronze, though no analysis of the metal has yet been made. The metal has a dark green patina and, here and there, has been pitted by corrosion. Overall the mirror measures 28.3 cm. (11.1 in.) long. The slightly kidney-shaped plate, plain on one side and profusely ornamented on the other, measures 20 cm. (7.9 in.) across, and was cut to shape from a beaten sheet of metal that varies from 0.7 to 1.1 mm. thick. The plate has an edging, penannular in section and 2.5 mm. in diameter, separately made from a strip of sheet bronze 8 mm. wide bent over the edge of the plate. On discovery the plate was broken, parts of it and parts of its edging being missing. The mirror has since been restored at the Research Laboratory of the British Museum. Of the edging, sections a to b, c to d, and e to f are modern (Fig 2). The restored parts

of the plate may be discerned by comparing Fig 1 with previously published illustrations of the mirror (Smith 1909: Fig 3; Fox 1958: Pl. 60a). It will be noticed that the original parts of the edging are not now in the same positions as they were before restoration.

The handle is of cast bronze and could have been made either by the lost wax technique or in a simple bivalve mould. There are no flashes such as generally occur on unfettled objects cast in piece-moulds, but their absence here is not significant as the handle was clearly fettled and polished after casting to give it the fine finish that it preserves to this day. This cold-working prevents us from determining the technique by which the handle was cast. After casting various details were sharpened up and others added. The quirk-like groove around the domed head set above the terminal ring was executed at this stage, as were the incised grooves (up to 0.8 mm. wide) on the bird-head like finials (of which one, on the undecorated face of the mirror, is badly damaged) at the other end of the handle (Pl. 2a, 6) and the punched lines and hatching on one of the faces of the disc set within the terminal ring (Pl. 2c). The circular depressions on the other face of this disc and on the bird-head finials were designed as insets for some sort of inlay of which fragments survive in a much decayed state. It seems likely that this was opaque fused glass ("enamel"); if so, it would most probably have been red in colour. As in the case of the mirrors from Colchester, Great Chesterford and Llechwedd du bach (Fox 1958: Pl. 56b, P, Q; 1960: Fig 1, Pl. XXVI, XXVII), it is not clear how the handle was attached to the plate, as there is no visible means of attachment. There are no rivets to hold them together, as one finds on the Birdlip, 'Gibbs', 'Mayer' and St. Keverne mirrors, for example (the head of a rivet may be discerned on the right hand arm of the 'Mayer' handle on the photograph published by Sanders 1968: Pl. 303, while both rivets can be seen on the St Keverne handle on the photograph published by Fox 1958: Pl. 7b). Either the handle was cast onto the plate, or the plate was merely wedged tightly into a narrow groove in the top of the handle. The two ends of the edging are also fitted into the top of the handle.

The incised ornament on the mirror plate was executed in the following way. First the pattern was drawn out freehand (as on the Great Chesterford mirror, for example) with a scribe which incised fine grooves in the metal no more than

0.1 mm. wide. A line was also scribed right round the plate at about 4 mm. in from the edge. Apart from this peripheral line, the scribed lines were then strengthened by punching a tracer along them, which imparted grooves from 0.2 to 0.3 mm. wide. The tracer did not always follow the exact course of the scribed lines, as can be seen on Pl. 3, a-c. Finally, the narrow bands defined by these lines were filled in with zig-zag lines each formed by rocking a graver of rounded section as it was pushed forward across the metal. (Examples of some of these tools have lately been discovered on the site of a late pre-Roman Iron Age smiths' workshop at South Cadbury, Somerset; Alcock 1970: 47, Pl. VIII.4-8; Spratling 1970: Fig 3). The zig-zag (or *tremolo*) hatching is of great interest, since the imprints of the graver used in this work reveal that as the craftsman gradually covered the face of the mirror the approximately 2 mm. wide cutting-edge of the tool deteriorated markedly in condition. From the different imprints of the tool we can detect the order in which the craftsman executed this work. At first the tool was in good condition and made a clean imprint in the metal (Pl. 3a, left); but soon its edge became damaged causing a very slightly broken imprint to be imparted (Pl. 3a, bottom). At the next stage, a crack developed in the centre of its cutting edge, causing it to leave a fine ridge down the centre of each length of hatching (Pl. 3b). After a while, this crack widened considerably, thus leaving a marked gap in the middle of the tool's imprints (Pl. 3c).

The order in which this work was done is of some interest. First, the central part of the mirror was hatched, where both clean and very slightly broken imprints can be discerned. At the top left hand corner of this area the *tremolo* lines are markedly narrower than those elsewhere (Pl. 3a, top), and were probably the first to be executed; they were presumably too narrow for the effect intended by the smith who thus rocked the tool more greatly to produce the wider lines that constitute the majority of the hatching on the mirror. Next, the left hand part of the mirror was done, for here all the imprints have a fine central ridge, and, finally, the right hand area, where all the imprints have a marked central gap. These four areas are defined by broken lines on Fig. 2; the rectangles on this drawing indicate the areas covered by the photographs printed on Pl. 3.

The incised patterns on late pre-Roman Iron Age bronze mirrors were often first drawn out

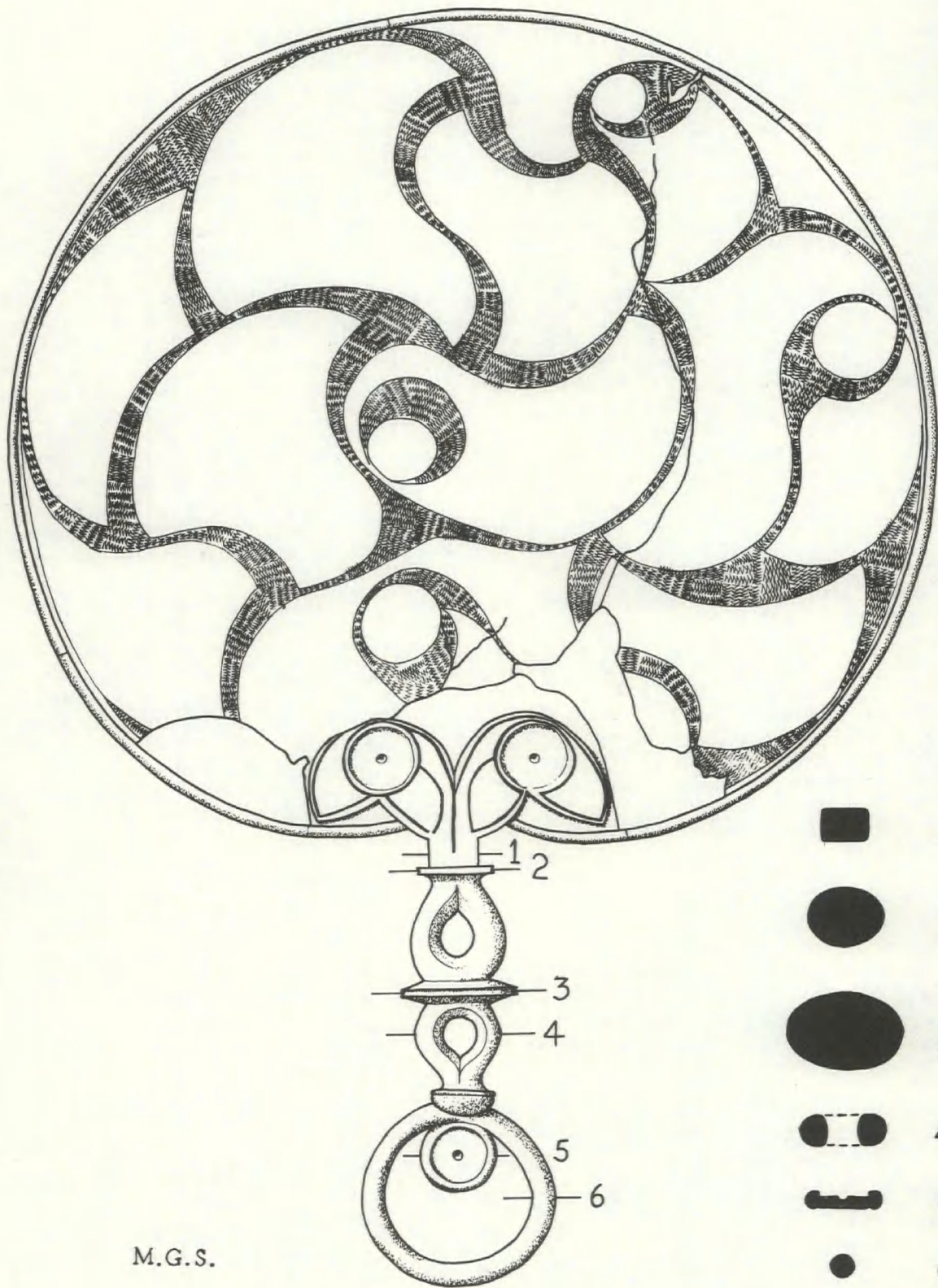
freehand with scribes and then strengthened by tracing, as on the mirrors from Birdlip, Desborough, Great Chesterford and Stamford Hill. The ornament on the 'Mayer' mirror was also first drawn out with a fine point, but with the aid of a pair of compasses, not freehand. Zig-zag hatching produced by rocking graving tools is also seen on the mirrors from Colchester (Fox and Hull 1948: 126-7, Fig 3) and Stamford Hill. Although the latter was destroyed in World War II, a photograph preserved in the archives of the Department of Prehistoric and Romano-British Antiquities in the British Museum clearly shows this hitherto unrecorded feature of its ornament. On both this mirror and the Tal-y-llyn peltate plaque (Savory 1964: Pl. VII) a scraper, rather than a graver of rounded section was used. The matted effect of the zig-zag lines on Old Warden is shared by these two pieces from Stamford Hill and Tal-y-llyn, but neither the zig-zag lines nor their arrangement can be used to suggest a date for our mirror, as both techniques were used by Celtic craftsmen for several centuries. It is interesting to note, in the context of the Old Warden mirror, that the tool used to produce the zig-zag work on the shield boss from Llyn Cerrig Bach also had an imperfect edge (Fox 1947: 8, Fig 3, Pl. Va. B). In passing, it should be noted that the hatching on the 'Mayer' mirror is not 'rocked tracer' as Sandars has recently claimed (1968: 268) but punched.

The "frighteningly mad disintegration" was how Sandars has described the abstract pattern of the incised ornament on the Old Warden mirror, and many years ago Leeds (1933:36) wrote that "the design...resembles nothing so much as a bad jig-saw puzzle". Both descriptions are a little hard on the craftsman who designed this pattern, and somewhat lacking in understanding. Fox was rather more perceptive and more convincing when he wrote that "The craftsman is surely building up a new 'diffusive' style, in which the voids are intended to please the eye as much as the pattern" (1958:94-5). The pattern seems to be related to that on the 'Disney' mirror fragment (Fox 1958: Pl. 56a. G). The ways in which the junctions of individual bands of ornament are handled are paralleled not only on 'Disney', but also on Billericay I (Fox 1958: Pl. 56a. F) and Great Chesterford (Fox 1960: Fig 1, Pl. XXVII). The curving-sided triangular voids that are so characteristic of the art of the British mirrors can easily be discerned, but they are arranged in a totally

different way to, say, the 'Mayer' mirror or the Llyn Cerrig Bach crescentic plaque (Fox 1958: Figs 18, 25).

The handle of our mirror is composed of two oval loops placed back to back and separated by an oval collar set in a plane perpendicular to that of the loops. At one end there is a large ring, while at the other, on each face of the plate, there are two bird-head like finials, each looking out sideways from the handle. These finials are closely paralleled by some of those on the Bugthorpe sword-sheath (Fox 1958: Figs 26,30B), while the rest of the handle is very similar to those on the Colchester and Great Chesterford mirrors. But Old Warden possesses an additional feature, not present on these two, namely a disc attached within the terminal ring to its upper side. A similar arrangement is to be seen on the handle of the Birdlip mirror (Fox 1958: Pl. 57b), but instead of being cast in one with the handle as on Old Warden the disc was made separately and provided with a tang and a collar for insertion into a socket within the terminal ring. A more complex arrangement was present on the now lost mirror handle from Old Warden, which had two discs placed within the terminal ring (Dyer 1966:55 Fig).

Fox has grouped our handle with other multiple-looped handles as his Type III Group B (1949: 32), and has argued that they were developed in Britain from single-looped handles, like that on the 'Mayer' mirror (this Type III Group A(i)), through 'intermediate' forms represented by 'Gibbs' and 'Disney'. He has further suggested (Fox 1949: 42-3) that a thorough search through Continental material might reveal precursors for the 'Mayer', 'Gibbs' and 'Disney' forms. Extensive search by Stead (1965: 56) and by the present writer has failed to reveal any reasonable foreign prototypes, which therefore suggests that the single-looped form was a British innovation. As it happens, however, the openwork handles of certain Roman bronze paterae provide good prototypes for the Colchester and Old Warden type. Three bronze patera handles from Pompeii, now preserved in the National Museum of Naples (Tarbell 1909: Pl. XCIX. Figs 214-6), each have two elongated loops placed end to end (and one of them has a collar set between these loops) and a large terminal ring. And in this context it is apposite to note that the multiple-looped British tankard handles, Corcoran's Class IVa, are probably to be derived from a tankard handle found in a



burial at Ornavasso in northern Italy (Corcoran 1952: 90; Willers 1907: Abb. 12.8).

Therefore, since no foreign prototypes can be adduced for the single-looped mirror handles and since it is likely that the multiple-looped handles were derived from Italian forms, it is clear that Fox's scheme stands in need of revision. If one were to look for a typological sequence, *pace* Fox, for the handles, it might be suggested that his basic sequence could be reversed, the single-looped being derived from the multiple-looped through intermediate forms like the 'Gibbs' and Bridport handles (for the latter, see Fox 1949: Fig. 5.4, Pl. III.1). We may note, in passing, that Stead (1965: 56) has suggested that the single-looped handles may have been developed from those of 'bar' form (Fox's Type I), like those from Arras (Fox 1949: Fig 1.1 and 3). However, the mutually exclusive distributions of the single- and multiple-looped handles suggest that the difference between them is cultural rather than chronological (cf. Fox 1949: Fig 10 = Fox 1958: Fig 67a, to which map the Type IIIB handles from Great Chesterford and Old Warden (II) should now be added). Fox has suggested that the single-looped handles were all made in Dobunnic territory (1958:104), but if this is so, it is curious, to say the least, that no examples of this form have yet been found there! Against a cultural rather than a chronological division of these handle-forms might be argued Fox's stylistic dating of the mirror patterns, but for his dates and for the stylistic sequence (e.g. in Fox 1958) there is extremely little reliable dating evidence. The dates proposed by him for such objects as the Bugthorpe, Hunsbury and Meare sword sheaths, the Llyn Cerrig Bach crescentic plaque and shield boss, the 'Mayer' mirror and the Grimthorpe disc, all of which are stylistically related and of key importance in his chronology, are merely assumed and cannot be proven. The dating is all too often circular, and of the mirrors only those from Birdlip, Colchester, Nijmegen and St Keverne were associated with objects that are of chronological value. Since the contexts of these four mirrors are so important, they must be reconsidered here.

Fig 1: Decorated bronze mirror from Old Warden, Bedfordshire. Scale: three quarters linear.

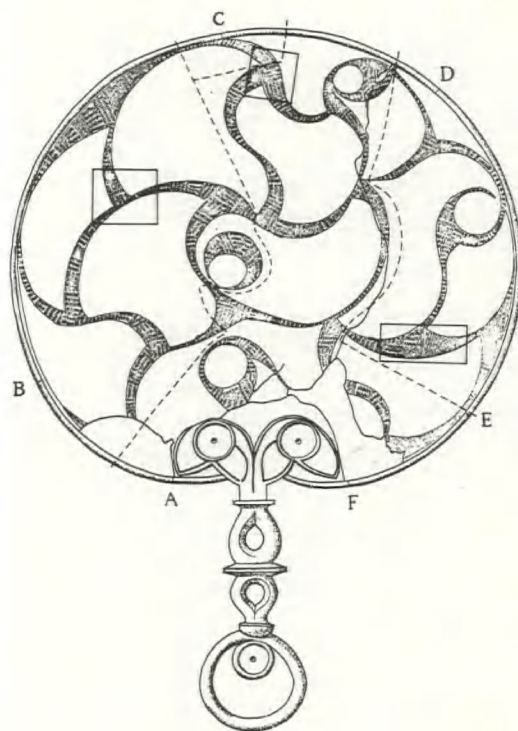


Fig 2: The Old Warden mirror: explanatory diagram. Scale: one third linear.

The date of the Birdlip mirror burial, and hence of the mirror itself, largely depends on that of the silver-gilt brooch (Green 1949: Fig 1b) that was found with it. It is the finest example of a class of purely British brooches that (as it happens) are extremely difficult to date with any precision. Green (1949: 190) has shown that the brooch is not related to the *Augenfibeln*, as was once thought (cf. Smith 1909: 341-5), but that it has features derived from La Tène III brooches of 'Aylesford' type. Thirty years ago Hawkes assigned these 'Aylesford' brooches to about 50 B.C. (1940: 495), but Birchall has since shown (1965: 290) that the 'type-specimen' itself most probably falls within the period c. 50/30 – 10 B.C.. But when these brooches were first made or when they ceased to be made is not yet known. The ancestry of the Birdlip brooch is not, however, so simple, for besides the Aylesford influence it also bears features derived from Germanic brooches of Almgren's Group II series 2 (*Fibeln mit zweilappiger Rollenkappe: Westliche Hauptserie: mit Sehnenhaken*) (Almgren 1923: 13-17, Figs. 26-30),

brooches that are dated to the first century A.D. and later. This, therefore, means that the Birdlip brooch is unlikely to be earlier than the first century A.D.. Lady Fox has argued (1961: 195) that since the Birdlip burials (there were at least four altogether) were inhumations they should be dated before the introduction of 'Belgic' cremating culture to the Birdlip area, an event which is supposed to have taken place by about A.D. 20 (cf. Clifford *et al.* 1961: xvii-xix, etc.). But it is not safe to assume that 'Belgic' burials must always have been cremations, since a recent find from Dumpton Gap, Kent, indicates that burial by inhumation was sometimes practised (Birchall 1965: 256). The Birdlip burials could therefore date after A.D. 20. A similar brooch to that from Birdlip has recently been found at Dragonby, Lincolnshire, where it was stratified with pre-Conquest wares of the late first century B.C. to early first century A.D. (information kindly provided by Mr Jeffrey May in advance of his own publication in *Antiqs. J.*). In conclusion, then, it does not seem that the Birdlip mirror burial can be more precisely dated than to the early first century A.D., probably, though not certainly, before the Roman Conquest. When exactly the mirror was made is an open question.

The Colchester find, also a burial, included a series of pots that Hull (in Fox and Hull 1948: 136) has dated within the period c. A.D. 10-43. On the grounds that no imported Gallo-Belgic and sigillata wares were found in the burial, he further suggested that they should be dated early in the period, to A.D. 10-25, an argument that is not altogether convincing. On this basis Fox (in Fox and Hull, 1948: 134) suggested a bracket of A.D. 1-15 for the mirror, but the evidence is not specific enough for us to say when during the period c. 10-43 the mirror was made, if indeed it was not made at an earlier date.

The bronze mirror from Nijmegen was found in a burial with a glass urn with M-shaped handles covered by a knobbed lid (Dunning 1930: 69, Fig 1, Pl. I), a type that is datable to the second half of the first century A.D. to the second century (Isings 1957: 82, Form 63). On this basis Dunning assigned the mirror to about 100 A.D., and Fox also dated it late (1958: 101, Fig 62). Bogaers (1967: 75) has suggested that it may have been brought to Nijmegen by a Roman legionary serving with a detachment of the Legion IX Hispana sent there from Britain early in the

second century. It is also possible, however, that the mirror may have been taken there by a Batavian auxiliary soldier when his cohort was transferred from Britain in the late 60's A.D. (cf. Hassall 1970: forthcoming). But as to when the mirror was in fact made, such arguments are of little help.

The St Keverne mirror was associated with a brooch of the 'Nauheim-derivative' or 'poor man's' type (Smith 1909: Fig 1), a type which does not seem to be more closely datable than to the first century A.D. (cf. Hull, in Hawkes and Hull 1947: 312, Type VII).

This, then, is the evidence on which the chronology of our mirrors is largely based. It is not very precise. But the four contexts above are all first century A.D. (or later), and it is probable, though not by any means provable, that the production of such objects ceased within a few years after the Roman Conquest. All of the stylistically related objects noted above probably date to the first century B.C. or the first half of the first century A.D., but exactly when within this period is debatable. Although Fox has interpreted this art in a typological manner, one could argue that it was all more or less contemporary and that it might have been fully developed in an extremely short time, in months or years rather than decades. It might have been contemporary in the sense that at any one time craftsmen might have been designing patterns as diverse as those of the Birdlip, 'Mayer' and Old Warden mirrors. Whenever a craftsman ornamented an object he may have selected a motif or a group of motifs that were attractive to him and have elaborated upon it or them in any one of a great number of ways. This seems to have been the case with the 'Mayer' mirror, for example, where the arrangement of motifs is so very different within each of the three roundels that constitute the basic design. And far from being a 'late' piece (cf. Fox 1958: Fig 62), the Old Warden mirror might be contemporary with the others, its pattern being the result of formal experimentation at exactly the same time that, for example, the Birdlip and 'Mayer' mirrors were being made. But because the dating of these objects is so very difficult and so imprecise, it is not yet possible to say whether certain patterns were contemporary with one another, or whether they can be placed in a typological series. This will only become possible when we obtain a large number of objects in well-dated contexts.

Meanwhile, in analysing early Celtic art in Britain we must be very careful not to impose on our data our preconceptions of how we think styles develop today and ought to have developed in the past. We must be more *heuristic*, and less predictive, in our approach. We must be very careful not to assume at the outset what we are in fact trying to find out. We must avoid assuming that such statements as that of Collingwood (1930:40) that "In the development of any type (and we might here add of any ornament) once established, decadence is the general law of art; and where one meets with an intensely vigorous work, work, so far removed from the weariness and formalism of a decadent school, it can hardly be a late example of its kind" are necessarily true, as did Leeds (1933:29), for example. In every case, such statements must be proved, and not assumed at the outset, to be appropriate to the problem in hand.

One final point concerning the date of our mirrors. Since none of them seems to date before the first century B.C., with the possible exception of the two iron ones from Arras (Stead 1965:55-7), and since they are all ultimately Classical in inspiration, it is likely that they were first made in the period after Caesar's incursions into Britain of 55 and 54 B.C., when trade and social contact with the Roman Empire was so very great and which had hitherto been non-existent to judge from the archaeological record. In this connection we may note Fox's comments (1958:94) on the Roman influence apparent in the design of the British mirrors. We may note, too, that most of them have been found in burials, a practice very common in the Roman world (cf Radnóti 1957:227).

In conclusion, we may say that the Old Warden mirror was probably made somewhere in the Midlands or East Anglia sometime during the century or so after Caesar's incursions, more probably later than earlier in that period, that is, in the first century A.D., the date suggested by the few mirrors that have been found in datable contexts. Whether our mirrors did or did not continue to be made after the Roman Conquest we do not as yet know. This and the host of other problems connected with them must wait to be solved by future discoveries and by further research.

Acknowledgements

I am very grateful to Mr F W Kuhlicke, Curator of the Bedford Museum, for allowing me to study

the Old Warden mirror in the museum, to Mr Mark Hassall for permitting me to read the typescript of his paper (1970) before its publication, and to Mr Jeffrey May for his comments.

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Addendum

While this paper was in the press, a bronze mirror with a quadruple-looped handle, but otherwise very similar to the mirror from Nijmegen, was discovered in excavations conducted by the Devon Archaeological Society at the Holcombe Roman villa, Uplyme, Devon (personal communication from Lady Aileen Fox). The form of the handle and the findspot of the mirror clearly call for a modification of certain points advanced above; this will have to await the forthcoming publication of the find by Lady Fox.

The Bedfordshire Archaeological Council is much indebted to the Council for British Archaeology for a grant towards the costs of this paper.

Excavations at Harrold, Bedfordshire, 1951-53

B N EAGLES and VERA I EVISON

Summary

Excavations were carried out on a commercial gravel-digging site in 1951-3. The prehistoric finds include a Neolithic stone axe, round barrow ring-ditches probably of the Bronze Age, Bronze Age cremation urns, and the huts, pits and ditches, with associated finds of an Iron Age settlement. Part of a seventh-century Anglo-Saxon cemetery was discovered and two Anglo-Saxon huts, as well as the grave of a ninth-century Viking.

In 1951 and 1952 the late J H Edwards FSA investigated a site at Harrold (NGR SP 953573) (fig 2) in an area rapidly being demolished by commercial gravel-digging (The North Bedfordshire Sand and Gravel Company Ltd), and found a considerable quantity of Iron Age pottery and material of other periods, together with many pits. Others living locally had also made chance finds. As the topsoil—in general some two feet deep—was being removed by the bulldozers, he traced a number of ring-ditches¹ which had been known previously from crop-marks, and where now shown to belong to ploughed-out Bronze Age barrows.² Mr Edwards worked single-handed for a year until he was taken ill on the site and died the next day, so that this report must pay warm tribute to his persistent individual effort in excavating and recording, work which he was tragically prevented from completing.

Following up these discoveries, Mrs M A Carey (then Miss Bennet-Clark) conducted emergency excavations on behalf of the Ministry of Public Building and Works in 1952 and 1953. At this time V I Evison was asked to write a report on Mr Edwards' Saxon finds, and they were deposited at the Inspectorate of Ancient Monuments for drawing and conservation. The drawings were completed in 1966. The rest of the material was passed to B N Eagles in 1964 for publication. The report was completed in 1968, but in 1969 original records and other information became

available for the first time. These included a preliminary report by Mr Edwards, an annotated map of the site, a summary and diary by Mrs Carey, the note by Sir Cyril Fox on the bronze ornament, and photographs of the site and excavation so, that it was necessary for the report to be entirely revised and resubmitted for publication in 1970. All the finds and original records are now in Bedford Museum.

THE PREHISTORIC FINDS

by B N Eagles

Introduction

The opportunity has been taken to publish the chance find of a Neolithic polished axe from Thurleigh. The Bronze Age finds are reported. Most of the evidence forthcoming was for the pre-Roman Iron Age site which was part of an extensive settlement but of which only a small part of the total area³ could be recovered. Even within these limits only a proportion of the finds were discovered *in situ*. However, fig 3 indicates how complex is the succession of features—though both plan and section of each one usually was recovered only in part. Very little is known of Iron Age settlements within Bedfordshire.⁴ At Puddlehill⁵ (in the south of the county) there are parallels in settlement form to Harrold—but this site is on the chalk.

The gravels here form part of the extensive deposits of the upper Bedfordshire Ouse.⁶ Recently, the dramatic results of air photography⁷ and excavation⁸ on many valley gravels have led us almost to expect long occupation of these terraces. Archaeological sites therefore often tend to be complex with a succession of features forming the most bewildering palimpsest. Harrold is no exception. Other such sites occur along the Ouse⁹ but it remains true to say that very little is known of the prehistory of this area.

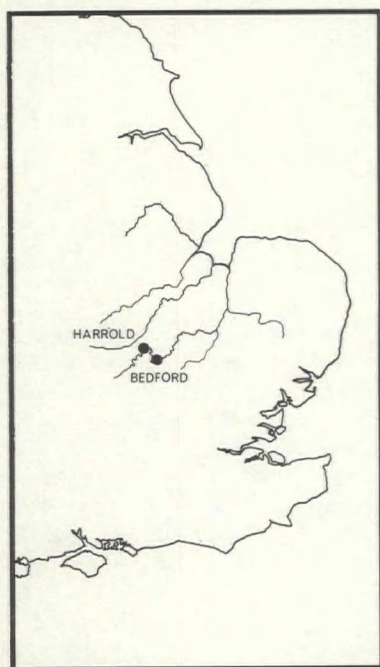
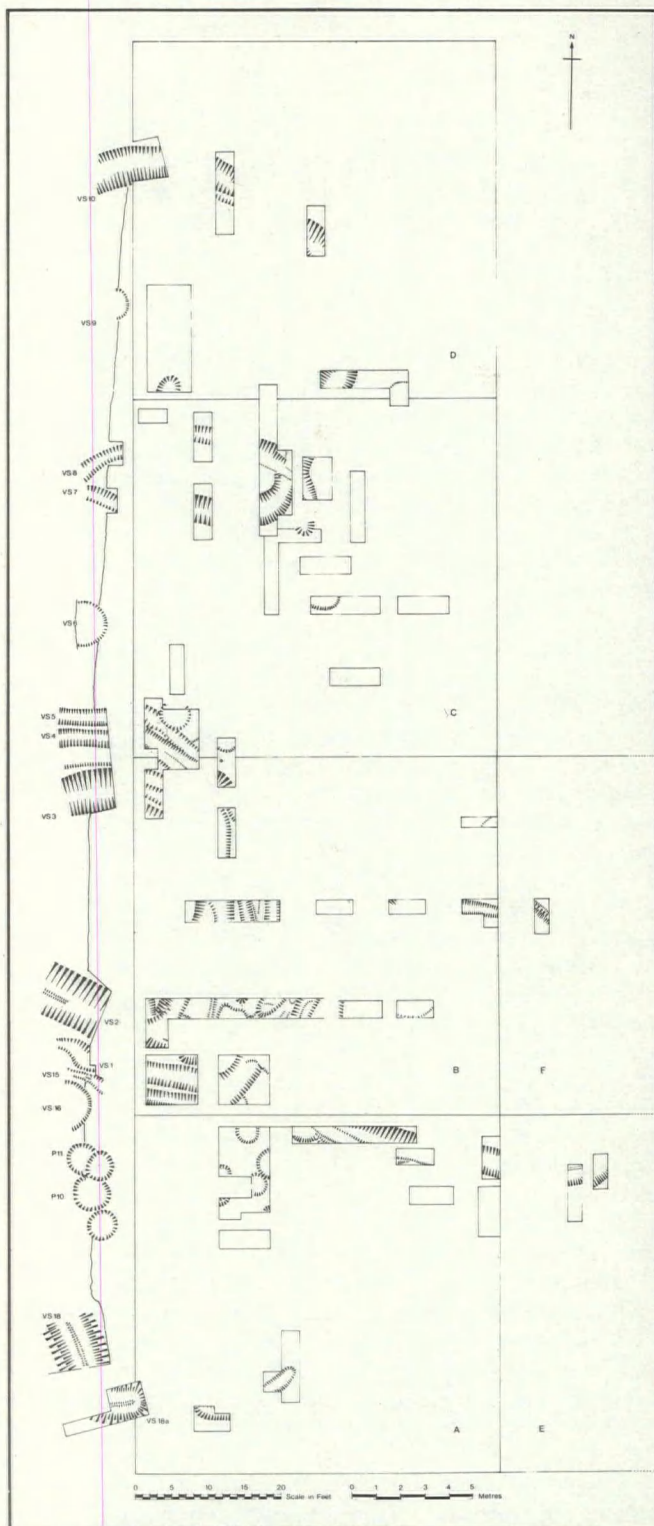
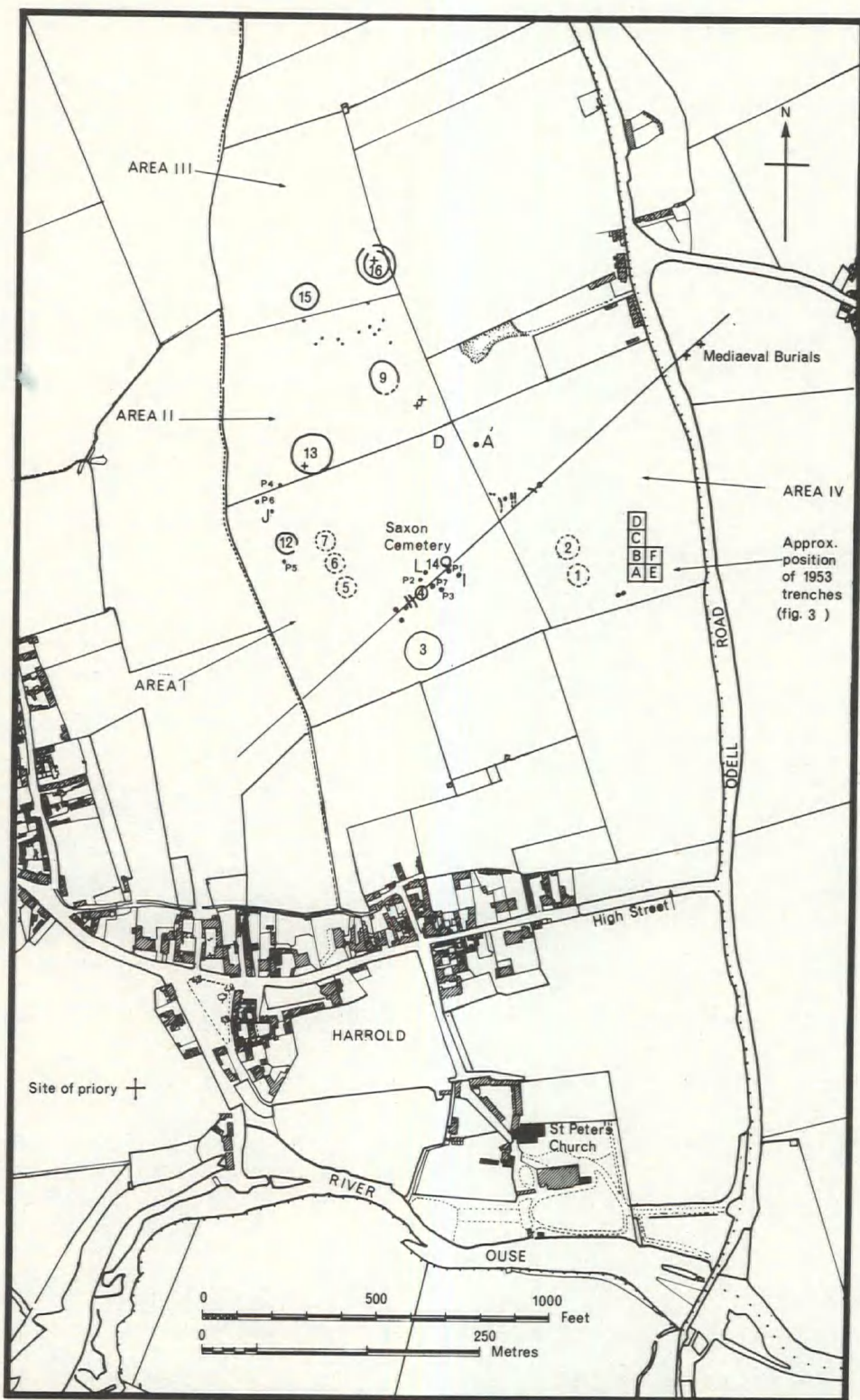


Fig 1 (above) The position of Harrold, Beds.

Fig 2 (opposite) Site of Bronze Age barrows, Iron Age settlement and Saxon cemetery, Harrold, Beds. Base map reproduced from the Ordnance Survey map of 1901.

Fig 3 (right) Area of 1953 excavation, Harrold.





Little can be said at present of the immediate environment at Harrold in any of the periods represented by the finds—the Neolithic, Bronze Age, pre-Roman Iron Age, and pagan Saxon—but the bones of red deer (*Cervus elaphus*) should indicate nearby woodland in the Iron Age—presumably on the stiff boulder clay overlying the Cornbrash to the north. Arable, pasture and woodland can almost be presumed an essential balance to the economy of an Iron Age farm just as it was to that of the early mediaeval village as evidenced by the Domesday Survey.

Mr J H Edwards, by persistence under difficult conditions, collected much archaeological material, mainly from area I but also from area IV (fig 2). His work has been reconstructed for this report from notes and Ordnance Survey 6 inch (Beds VI SE—Old Series) and 25 inch (Beds VI 12 and 16—Old Series) scale sheets on which he roughly plotted many features, the larger scale being used in conjunction with a survey carried out by Dr G C Dunning and Miss M Macfarlane. Archaeological features found by him are each denoted in their appropriate groups either by a single letter or are included in Mrs Carey's later numerical series.

In the autumn of 1952 Mrs Carey undertook excavations which were confined mainly to areas I and IV (fig 2). She did much to follow up and elucidate Mr Edwards' discoveries including further excavation of one of his pits (L) two ?huts (P1, P2) and two ring-ditches (Z, 13). In 1953 a strip immediately west of the Odell Road as yet untouched by the gravel company gave Mrs Carey an opportunity to carry out more systematic excavation. As a result of the efforts of these two seasons further (?Bronze Age) barrow ditches and a whole complex of Iron Age pits (P1—17), ditches (VS1—20), and gullies (G1—3) were uncovered. The 1953 plan (fig 3) shows the features cutting each other. Unfortunately, their fragmentary recovery makes it now impossible to write with certainty that one ditch preceded rather than succeeded another. A high percentage of the pottery found was unstratified.

NEOLITHIC

Polished stone axe found near Thurleigh

This (fig 11a) was found during ploughing in 1949 or 1950. Mrs June Morey of the Petrographical Department of the Geological Survey

and Museum sectioned it and reported:

"The axe is made from a crystal tuff of intermediate composition: it is fine grained and greenish grey. The rock is similar in appearance and mineral composition to the Borrowdale Tuffs from the Pike of Stickle, Westmorland, and is therefore of Group VI."

It is now in private possession.

BRONZE AGE?

Ploughed-out round barrows

RING-DITCH Y—In area IV. 17 Iron Age sherds. (No 47)¹⁰

RING-DITCH Z—In area I. Re-excavated by Mrs Carey. 26 Iron Age sherds inc 2 rims, 3 bases and a wall sherd with widely-spaced combing (occurring again in ring-ditch 12). 7 wall sherds belong to large thick-walled vessels (group 6). (Nos 48,62)

RING-DITCH 1—In area IV. Diam 26 ft Iron Age sherds. Removed by bulldozer.

RING-DITCH 2—In area IV. Diam 33 ft and 4 ft 6 ins wide at top. Few Iron Age sherds in upper fill.

RING-DITCH 5—In area I. Diam 59 ft, cut 2 ft into gravel and 5 ft 9 ins wide at top. No finds. Removed by bulldozer. Anglo-Saxon skeletons were recovered both from within and immediately outside the ring-ditch.

RING-DITCH 6—In area I. Diam 26 ft. Removed by bulldozer. Pit E in interior.

RING-DITCH 7—In area I. Diam 42 ft and 6 ft wide at top.

NB Ring-ditches 6 and 7 joined but their precise relationship could not be determined.

RING-DITCH 9—In area II. Oval, with maximum 'diameter' 90 ft. No finds. Perhaps not a barrow.

RING-DITCH 13—In area II. The S segment was excavated by Mrs Carey. Overall diameter 132 ft with ditch 10 ft wide and cut approx 4 ft 6 ins into the gravel. Ditch of V-section with sides sloping at approx 45° and bottom rounded. The lowest two feet consisted of six layers of rapid gravel fill and this may be regarded as the primary silt. Into it a pit had been cut to take a crouched burial, placed along the ditch and with heads to SE. (plate 4a and below). The burial was sealed by further silt.

Separated from this silt by a layer of large pebbles which had collected towards the centre of the ditch and in a layer of stone-free red loam up to 1 ft deep an unurned cremation burial was

recovered. This layer also produced the bones of two small Celtic oxen (*Bos longifrons*). Of these only a very small proportion are meat bones, including an easily recognisable humerus. Other finds from the ring-ditch were four tiny pottery sherds (quite indeterminate) and the calcaneum of a red deer.¹¹

There was also a cremation burial in an oval stone cist but its relationship to the barrow was not recorded. The cist itself, 4 ft 9 ins long and 2 ft 3 ins wide, was made of slabs of cornbrash, one forming the top, one the base and the others the sides, the whole bedded in yellow clay. The floor of the cist sloped. It must be noted that burials within cists can occur at almost any date but the association of cremation and ring-ditch here must favour the Bronze Age. A cremation burial without urn in a clay-lined grave some 3 ft from the cist, was also recovered.

RING-DITCH 15—In area III. Diam 78 ft. Mostly destroyed by quarrying but an unurned cremation burial was found in the E half.

RING-DITCH 16—In area III. The only barrow recorded in the form of two concentric penannular ditches, the outer approx. 100 ft diam, the inner 60 ft. Causeways 8 ft wide (outer ditch) and 6 ft 6 ins wide (inner ditch) on N side. A bank probably existed between the ditches. A crouched inhumation burial, lying on its left side and without associated finds, was found in a shallow hollow slightly off barrow centre, (plate 4b and below). The positions of ring-ditches 3 and 4 are marked on fig 2, as too are those of 12 and 14 which have been included with the evidence for Iron Age settlement. There is no information about 8, 10 and 11 although one of these is probably that described in notes as in area I, 30 ft diam and without finds.

In general, all ring-ditches appear to have had a similar fill; the lower half a loose, practically sterile gravel, while the upper part contained fire-cracked pebbles and pottery from the Iron Age settlement.

BRONZE AGE POTTERY

All this pottery was recovered without association: the descriptions are based on notes by Dr I H Longworth.

CINERARY URN 1 (fig 9a)

This is the upper part of a tripartite collared urn with the beginnings of a concave neck. It belongs to the Secondary Series with a date sometime

after 1400 BC. The decoration consists of: collar—twisted cord filled triangles, neck—beginnings of vertical twisted cord lines, rim—row of short diagonal impressions, some at least made with twisted cord (some impressions have possibly been damaged in cleaning).

The use of standing filled triangles, with the pendant triangles being left plain, is not common. The urn was found inverted in a pit. No cremated bones were recovered.

CINERARY URN 2 (Fig 9b)

Found in area I. This is the lower part of a bucket urn. The paste, with a large amount of crushed grit (?shell) added, is typical. It is of the Middle or Late Bronze Age. Dr Cornwall has reported on the cremation it contained and concludes that the individual was a young adult, probably under twenty-five and possibly a male.

There are wall sherds from at least three other Bronze Age pots found near cinerary urn 2. All are of the Bucket type, two being thin-walled, (6 mm), the third, represented by a single sherd, thicker (16 mm) and in two planes, apparently across the neck of the vessel. There are no rim sherds. This suggests that the urns were placed upright in the ground, the tops being removed and the pots shattered by the mechanical excavator. Dr Cornwall has reported on the partial remains of a cremation contained in one of these.

BRONZE AGE EVIDENCE — SUMMARY

It will be realised how very little these excavations can add to our knowledge of this period in Bedfordshire. The ditches of the round barrows, the cremations and the urns are the sum of evidence as none of the animal bones recovered need be Bronze Age rather than Iron Age. All that can be inferred safely from these is occupation of the area in the Middle and Late Bronze Age and probably from c 1400 BC.¹² There is no direct reason to suppose any connection with the Iron Age settlement. However, the exclusively Iron Age pottery recovered from the round barrow ditches might suggest we are here dealing with Iron Age burials continuing a Bronze Age tradition in rather poor fashion. As the pottery is essentially undatable, the ring-ditches might represent a phase not far removed in time from the late Bronze Age. This important point must be left open until more evidence is forthcoming from a site with better preserved records than Harrold. However, the evidence recovered from

ring-ditches at Stanton Harcourt (Oxfordshire)¹³ shows how misleading the stratified finds can be for dating purposes and that the ditches need not fill to the top for a very long time. Mrs Carey's notes also indicate that some silting had taken place before the Iron Age sherds reached the fill. For this reason, all the animal bones and pottery from the barrow ditches have been considered together with the other Iron Age evidence.

PRE-ROMAN IRON AGE

Huts

HUT C—In area IV. A fragmentary rotary quern, (fig 10a) a bone awl, (fig 11b) fragments of clay oven, 1 complete pot (No 68,¹⁰ fig 9c) and 133 sherds inc 2 rims and 2 bases of large thick-walled vessels (Gp 6). Nearly all the sherds in brick-red ware of (No 67) but 4 of black shell tempered ware—2 rims. Nothing is known of the size, construction, or position of the hut.

HUT H—In area I. A 'shallow black patch 3 ft 6 ins by 4 ft, and a hearth of pebbles set in red clay. 1 sherd (No 29).

HUT I—In area I. Floor of large pebbles set in yellow clay embanked at the edges (representing the lowest part of the hut walls?). Many pebbles showed signs of burning. Under cobbling were bones of cattle and sheep, horn-core of an ox and an antler tine worked to a fine point. 4 lugs from pots and 63 other Iron Age sherds (p 00). Shape of hut unknown.

HUT M—Area unknown. Black occupation soil represented hut floor. Bones of cattle and pigs. A large part of the pot, fig 9e, and 2 other sherds, inc 1 base.

? HUT N—In area I. Hearth partly destroyed by mechanical excavator. A ditch, 4 feet deep, approached in long straight line from NE and turned 90° (to SE) and perhaps could have afforded some protection for the hut. Sherds in hearth and 57 in immediate vicinity inc 3 bases and one fragmentary handle (Gp 5). Many of the sherds have combed decoration. (Nos 13, 30) Bones of cattle and pigs scattered about.

? HUT P1—In area I. Removed by the mechanical excavator and no dimensions recorded. Blackened soil and many rounded purple stones (probably Bunter pebbles) suggested a hearth. Cattle bones and 8 sherds, some with combing.

? HUT P2—In area I. Pit L a few feet to E. P2

bulldozed away and 60 large red pebbles, many with clay adhering, could represent a hut floor. 16 sherds, 2 with combing (fig 9d), 3 bases, 1 in grey-black ware very similar to Nos 6, 8, 1 in brick-red ware, partly smoothed (Gp 1). (Nos 1, 31, 32) Bones of sheep and cattle.

GULLIES 1 to 3—Nothing is known of them and they could relate either to house sites or to fields.¹⁴ They do not appear on the plan. G1, 13 sherds, G2 8. Bones of cattle and sheep from G1, cow from G2, sheep from G3.

This is the total evidence for huts.¹⁵ None is known to have succeeded another on the same site but doubtless, in any case, these four (?seven) represent but a small fraction of the original number in the settlement.

Pits

PIT A—In area IV. Cone-shaped, diam at top 4 ft and 3 ft deep. A fragmentary rotary quern (fig 10b), 20 sherds, inc 10 with combing and 1 base (Nos 2, 14, 33, 52) and an inhumation burial¹⁶.

PIT B—In area I. 5 ft deep. A bronze pin,⁷ (fig 11c) 94 sherds, the horn-core of an ox and animal bones unspecified apart from a boar's large tusk.

nb only a small proportion of the finds were recovered.

PIT E—In area I and inside R—D 6. 6 sherds and two fragments of animal bone.

PIT F—In area I. 7 sherds inc 1 base (No 34) and cattle bones.

PIT G—In area I. Shallow and 5 ft from R—D4. 8 sherds, 1 with combing (No 35) and animal bones.

PIT K—Area unknown. Two needles—one of bone, the other of bronze (figs 11d, e).

PIT L—In area I. 4 ft 9 ins deep and 5 ft wide at the bottom. 27 sherds, and cattle and sheep bones in ashy layer at the bottom, immediately above sandy gravel. Also a flint ball (with white cortex almost complete), slightly flattened as if by pounding.¹⁷

PIT Q—In area I. Pebbles and 32 sherds.

P3 and P4—No details except that P3 in area I and P4 in area II.

P5—In area I. Clay-lined. Many Bunter pebbles, 21 sherds, inc 1 with faint brushing, and a fragmentary miniature cup. (Nos 15, 16, 36, 53, 69).

P6—In area I. Partly removed by bulldozer. Sherds (No 54), fragments of a clay oven, two animal teeth. [The complete skeleton of a dog,¹⁸

also recorded from 'P6', in fact came from a pit in area IV].

A rodent's scapula was probably intrusive.¹⁹

P7—In area I. 5 sherds inc 1 base. (No 37) Bones and teeth of sheep and cattle. An antler hoe (fig 11f).

P10—In area IV. 3 sherds. (No 64).

P11—In area IV. Horse bones.

P12—In area IV. Cattle bones, ox skull and 4 sherds (one with finger-tip impressions on rim diagonal scoring on neck, poorly preserved and not illustrated).

P13—In area IV. Layer of purple stones. 10 sherds, inc 2 with combing and 1 base (Nos 3, 38), cattle and sheep bones and the scapula perhaps of a pony.

P14—In area IV. 4 sherds, inc one with scored decoration (No 4) and fragmentary and unidentifiable animal bones.

P15—In area I and to E of R-D Z. 4 sherds. (No 17).

P16—In area I. 2 sherds and cattle and sheep bones.

P17—In area I. 39 sherds, inc 1 base and tiny sherd with squared rim, black, burnished (Nos 55, 65) and cattle and sheep bones.

VS16—In area IV. Two distinct but unspecified layers of filling. Cattle and sheep bones and 3 sherds. (Nos 5, 6).

The shape of all pits but one (PIT A) is unknown. Their use for rubbish could be merely secondary.

Ditches

Twenty of these, most of which produced pre-Roman Iron Age sherds and animal bones and some other finds as well, were traced in various parts of the site. Many of them appear, some labelled, on the plan (fig 3). They are thought to relate to the area of the Iron Age settlement.

(Details are tabulated overleaf).

Very little is known of the stratification in these ditches but some of the pottery at least can be separated out in some fashion, between certain layers, in VS 2, 3, 10, 17 and 18.

VS 2, layer 1—Taken as the fill from topsoil to depth of 1 ft 8 ins. 9 sherds inc 1 base and the bones of cattle and sheep.

VS 2, layer 2—A stony fill to depth of 2 ft 8 ins. 31 sherds inc 1 base and cattle and sheep bones. There is also 1 combed sherd 'from VS 2'.

VS 3, layer 1—Defined only by number—similarly VS 10 and 17. 23 sherds inc one with combing and horse and cattle bones.

VS 3, layer 2—16 sherds inc rim sherd in rough black ware (cf No 56) and horse and cattle bones.

VS 10, layer 1—66 sherds inc 4 bases and 1 with brushing and the bones of cattle, horse and sheep.

VS10, layer 2—Bones of cattle and sheep.

VS 17, layer 1—2 sherds and cattle bones.

VS 17, layer 2—Bones of horse and deer.

VS 18, layer 1—Above and including a layer of purple stones. 48 sherds and bones of cattle, pig and sheep.

VS 18, layer 2—26 sherds and bones of cattle and sheep.

In addition to these ditches, recovered in 1953, ring-ditches 12, 14 and, possibly 9 could relate to the same settlement.

RING-DITCH 12—In area I. Probably oval but 'diam' approx 50 ft. Most of E half removed by bulldozer but archaeological section cut in N which showed the ring-ditch to be of V-section with steep sides and narrow rounded bottom 6 ins across. The ditch was approx 8 ft wide at the top and 4 ft 6 ins deep. Entrance gap on SE side, immediately E of which the ditch was only 4 ft wide and 1 ft 9 ins deep. The lower part of the fill was generally uniform; brown gravel with lines of rapid silting clearly visible and no finds. Above this a reddish stony layer contained much Iron Age pottery (Nos 10, 11, 12, 23, 24, 25, 26, 27, 28, 49, 50, 51, 63, 66, 71), purple Bunter pebbles and animal bones. A secondary phase of the ring-ditch may well be represented by two narrow, shallow and parallel ditches (overall width 4 ft) which apparently ran across the entrance and linked the ends of the penannular ditch.

RING-DITCH 14—In area I. Oval, with max 'diam' 38 ft. Much disturbed by bulldozer. A second ditch was cut to lead out of the ring-ditch in SE direction and was regarded by the excavator as necessary for drainage. Cattle bones, 21 sherds and Bunter pebbles were recovered, mostly from SE part of the ring-ditch.

Ovens of baked clay

A report on all the fragments found appears below.

Inhumation (PIT A)

This was found in 1951 but not intact. A small fragment of human skull was first noticed and it was then realised that a crouched burial, now crushed, lay under large pebbles under approximately eighteen inches of soil in the exposed section of a pit. A report on the bones appears below.

Pottery

General note: Almost all sherds contained a

Ditches

VS	AREA	EIA SHERDS	OTHER FINDS
1+	IV	4	cattle bones and 1 tooth
2+	IV	61 (Nos 7, 18, 39, 40)	bones and teeth of cattle and sheep
3+	IV	40 (Nos 19, 41) 56, 57	bones and teeth of horse and sheep and bones of cattle; fragments of daub and tile and ? medieval rim sherd
3a ^a	IV	6 (No 58)	cattle bones, sheep's molar; daub fragments, flint flake
4+ and 5+	IV	finds confused	
6+	IV	3, 1 combed	cattle teeth
7+	IV	6 (No 70) inc handle (frag)	cattle bones
8+	IV	3	cattle and sheep bones
9+	IV	6	undetermined animal bone
10+	IV	72 (Nos 8,20,42, 43,44,45,59)	cattle bones and teeth and bones of sheep and horse
11	?	none	pony scapula
13	?	13 inc 1 base and ? handle	cattle bones and teeth and sheep teeth
15+	?	no finds recorded	
15a	IV	9 (No 21)	cow's molar
17	?	2	deer and cattle bones and bones and teeth of horse
18+	IV	81 (Nos 9,22)	bones and teeth of cattle and sheep and pig teeth
18a +	IV	12 (Nos 46,60) inc 1 handle and 1 with combing	cattle bones and teeth; flint scraper
19	IV	no finds recorded	
20	IV	11 inc 1 base (No 61)	bones of cattle and sheep and sheep's molar

^a situated between VS 3 and 4

+ indicates marked on fig 3

considerable proportion of pounded shell. Much of the pottery (hand-made) was poorly finished and fired but some of the smoothed or burnished pots may be considered fine ware.

The following groups of Iron Age pottery can be isolated as being both in association and containing sherds with diagnostic traits of some general significance. They are therefore published in full. However, stratification in the pits is so poorly recorded that it is impossible to tell whether filling took place over a long period of not.²⁰ HUT 1 (fig 5)

1 Hard, burnished ware: brown with black core.

- 2 Hard red ware with smoothed surfaces.
- 3 Black, burnished, smoothed inside.
- 4 Hard, well smoothed ware with some burnishing, colour variable.
- 5 Black, poorly fired; slight thickening at one edge suggests handle, faint almost vertical brushing.
- 6 Hard brown ware; surface rough with some brushing.
- 7 Hard black ware.
- 8 As 7 but not as well smoothed.
- 9 Buff, poorly fired.
- 10 Grey, poorly fired.
- 11 Handle; not smoothed, buff to red outside,

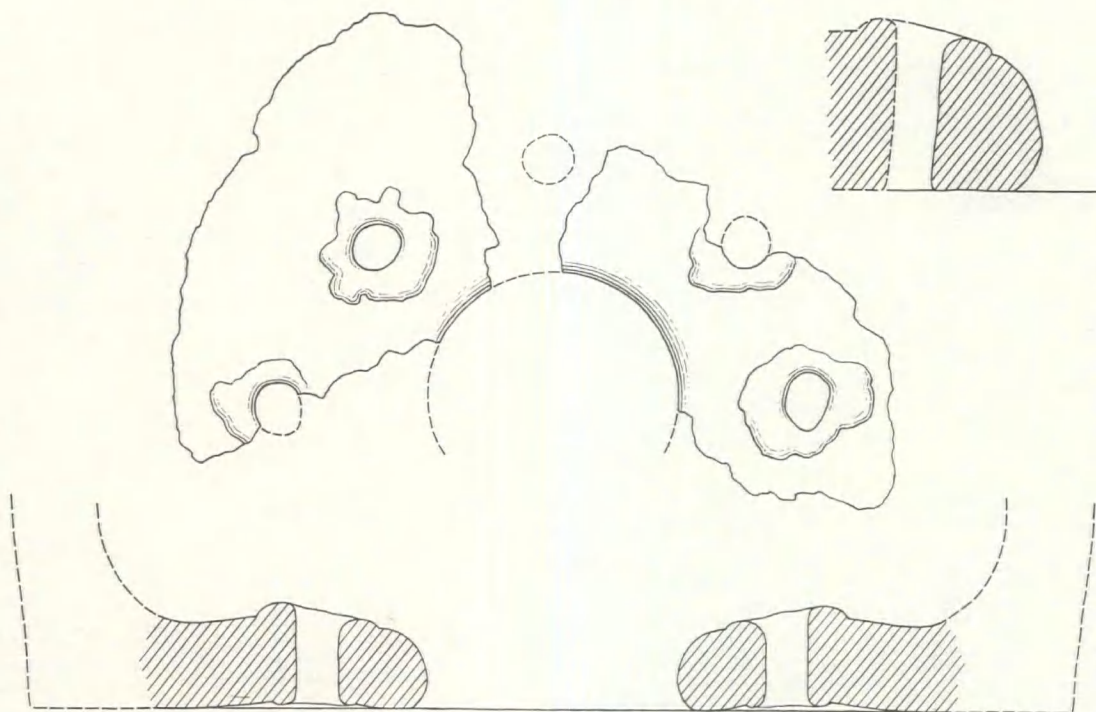


Fig 4 Iron Age baked clay oven. Scale $\frac{1}{4}$

black core and inside.

- 12 Handle; smoothed and some burnishing, black.
- 13 Handle; well smoothed, buff outside, black otherwise.
- 14 Black, burnished.

There were 2 flat bases. Otherwise all the pottery was wall sherds, of which 3 have combed decoration.

PIT B (figs 5, 6)

- 1 Hard red ware; light vertical incisions on neck.
- 2 Black ware with rough surfaces, rilling on rim.
- 3 Hard brown ware; surfaces smoothed.
- 4 as (1) but without vertical incisions.
- 5 Brown, left rough; finger impressions below rim.
- 6 Smoothed dark brown ware, pebble-smoothed internally.
- 7 Black but externally red and left rough; vertical scoring outside.
- 8 Partly buff externally, otherwise black; slight finger impressions below rim.

9 Hard dark brown ware.

10 Hard brown ware, burnished.

11 Hard black ware, burnished.

12 Sandy ware, red externally but otherwise black; coil-made.

13 Brown, some smoothing externally.

14 Brown, finger impression below rim.

There were 4 flat bases. All the other pottery was wall sherds, 15 of which have combed decoration.

PIT L (fig 6)

- 1 Hard dark brown ware, smoothed externally; irregular lattice-work incised on neck after firing.
- 2 Hard brown ware.
- 3 Soapy ware, red externally, but colour variable; finger-smoothing on inside and finger impressions externally below rim; rough finish.
- 4 Hard brown ware.
- 5 Hard grey ware, burnished; found almost complete. nb asymmetric form. There were 4 flat bases in addition to those illustrated. Two of the remaining sherds, all wall pieces, were decorated with combing.

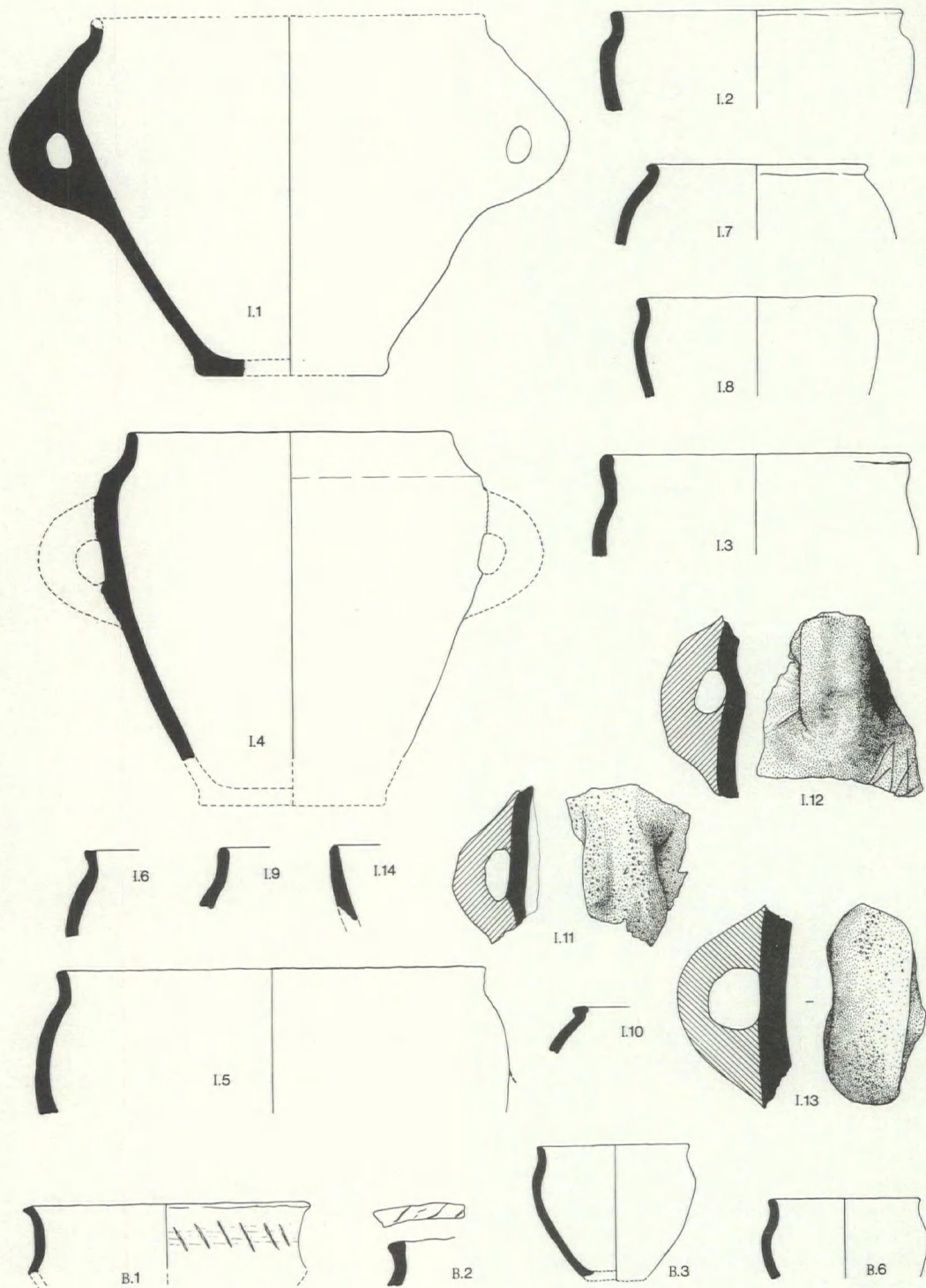


Fig 5 Iron Age pottery from hut I and pit B. Scale $\frac{1}{4}$

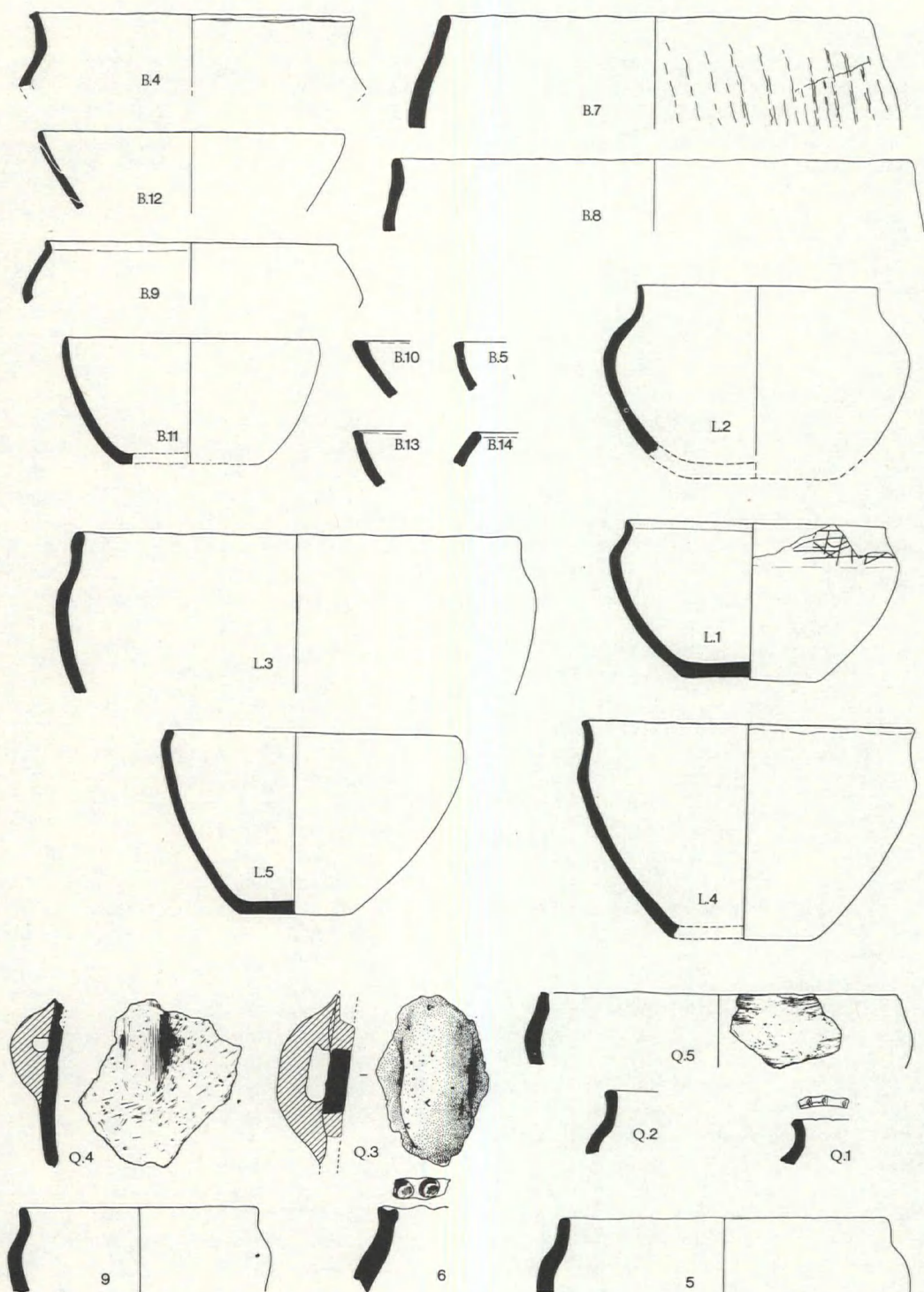


Fig 6 Iron Age pottery from pits B, L, Q and nos. 5, 6, 9. Scale $\frac{1}{4}$

PIT Q (fig 6)

- 1 Rough dark brown ware; finger-nail impressions along rim.
- 2 Hard black ware, burnished.
- 3 Handle; buff externally, otherwise black, some smoothing.
- 4 Handle, black externally, otherwise red, rough finish.
- 5 Black ware, partly smoothed, finger impressions below rim.

nb There is also a tiny rim sherd in black ware, surfaces smoothed, which belonged to a small bowl.

The pit also produced 2 flat bases and 2 pieces decorated with combing among the wall sherds. *Single* Iron Age sherds of interest both from Mr Edwards' and Mrs Carey's excavations are in the list which follows.

Eight groups have been distinguished, and are arranged for descriptive purposes according to shape. Details of decoration, if any, are given in brackets with a number.

- i.e. (1) decoration of wall surface by combing or scoring (fig 9d)
(2) decoration of rim by cabling.
(3) decoration of rim by finger-tip impressions

These groups are quite arbitrary and groups 1 to 4 merge almost imperceptibly. Thus some pots with quite long and straight necks have a globular body and the shoulder can be marked sharply or hardly at all. Figs 6, 7, 8 and 9.

Group 1 With marked shoulder

- 1 ? HUT P2—Red; rough finish. (1)
- 2 PIT A—Reddish, finger-marks below rim, roughly finished. (2)
- 3 P13—Black; roughly finished, faint vertical scorings on shoulder.
- 4 P14—Black; roughly finished with slight finger impressions. (2)
- 5 VS 16—Black, smoothed. (3)
- 6 VS 16—Brick-red, surfaces rough. (3)
- 7 VS 2, layer 1—Red, not well smoothed.
- 8 VS 10, layer 1—Red externally, black internally; surfaces rough. (3)
- 9 VS 18, layer 1—Hard black ware, lightly burnished; finger-marks on neck.
- 10 R—D 12—Red externally; very poorly fired and surfaces rough. (1) (2)
- 11 R—D 12—Hard black ware but poorly fired; light finger-tip impressions over the whole.
- 12 R—D 12—as 6. (3)

Group 2 With straight neck

- 13 ? HUT N—Black; some smoothing, finger impressions on neck.
 - 14 PIT A—Dark brown, but poorly fired; finger impressions on neck. (2)
 - 15 P5—Red, black externally; smoothed surfaces—probably lightly burnished.
 - 16 P5—Reddish brown externally, otherwise black, smoothed surfaces.
 - 17 P15—Red surfaces, otherwise black; poorly made. (3)
 - 18 VS 2 layer 1—Grey, probably red externally; smoothed surfaces. (3)
 - 19 VS 3, layer 1—Red; 'soapy' ware—less shell used.
 - 20 VS 10, layer 1—Black; scoring below rim.
 - 21 VS 15a—Red externally, black internally; smoothed surfaces.
 - 22 VS 18, layer 2—Colour as (21); finger impressions on neck and burnishing.
 - 23 R—D 12—Colour as (21); rough finish. Coil-made.
 - 24 R—D 12—Red surfaces, black core; rough finish.
 - 25 R—D 12—Black; some smoothing, finger-nail impressions on rim.
 - 26 R—D 12—Buff with red grit as well as shell temper; smoothed surfaces.
 - 27 R—D 12—Black externally, red internally, some smoothing; slight internal ledge.
 - 28 R—D 12—Black. Some smoothing but some finger impressions remain.
- ### Group 3 Globular
- 29 HUT H—Black; rough surfaces.
 - 30 ? HUT N—Hard black ware; surfaces smoothed.
 - 31 ? HUT P2—Red externally, otherwise black; lightly burnished.
 - 32 ? HUT P2—as (29)
 - 33 PIT A—as (29)
 - 34 PIT F—Hard black ware; surfaces a little reddened and smoothed.
 - 35 PIT G—as (29). (2)
 - 36 P5—Reddish; smooth surfaces.
 - 37 P7—as (5)
 - 38 P13, layer 1—as (21)
 - 39 VS 2, layer 1—Black, surfaces partly smoothed.
 - 40 VS 2—Buff to red externally; otherwise black.
 - 41 VS3—Black, somewhat rough externally; probably pebble-smoothed internally.
 - 42 VS10, layer 1—Red surfaces, black core; some smoothing.
 - 43 VS 10, layer 1—Red, smoothed surfaces and

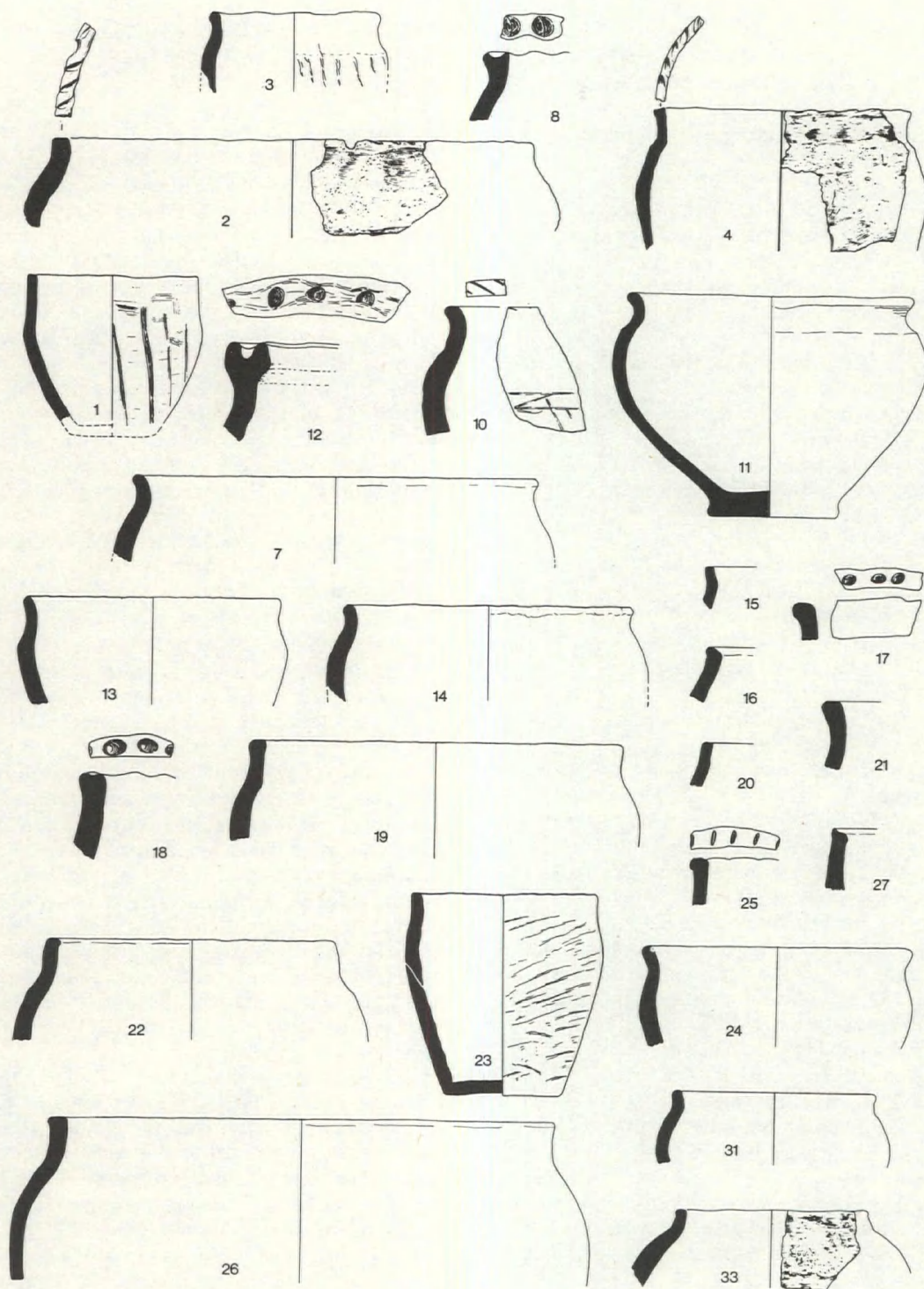


Fig 7 Iron Age pottery. Scale $\frac{1}{4}$.

black core.

44 VS 10, layer 1—Red, with grey core. (3)

45 VS 10, layer 1—Red, with black core; rough surfaces.

46 VS 18a—Colour as (27); smooth finish.

47 R—D Y—as (5)

48 R—D Z—as (5)

49 R—D 12—Colour as (27); burnished.

50 R—D 12—Hard black ware; surfaces rough.

51 R—D 12—Hard black ware but outer surface red; some smoothing but traces of finger impressions under rim.

Group 4 Small bowls

52 Pit A—Hard black ware, somewhat smoothed. (1)

53 P5—as (5) but inner surface a little reddened.

54 P6—Dark brown; surfaces rough.

55 P17—Reddish-brown; rough surfaces. (2)

56 VS3, layer 2—Dark brown; burnished.

57 VS3, layer 2—as (5).

58 VS 3a—Black; rough externally. (2)

59 VS 10, layer 1—Colour as (31). 'Saucepan' pot. (3)

60 VS 18a—as (5)

61 VS 20, layer 1—Hard black ware; some smoothing. Groove below rim externally.

62 R—D Z—as (5).

63 R—D 12—Orange-red surfaces; grey core. cf (43).

Group 5 With large handles

64 P 10—Handle buff, wall of vessel black; not smoothed. (fig 9f)

65 P 17—Black, smoother and probably burnished originally (surface now badly pitted). (fig 9g)

66 R—D 12—Reddish brown externally, otherwise black; rough surfaces. (fig 9h)

Group 6 Large thick-walled vessels

67 HUT C—Red; the high concentration of shell gives this ware almost the rough texture of brick.

68 HUT C—Hard brown ware; smoothed externally.

Group 7 Miniature cup

69 P5—Red; sandy ware. Drawn 2:1.

Group 8 With deep ledge for lid

70 VS 7—Black; rough finish.

71 R—D 12—Black; burnished externally. Internal diameter below ledge 16.5 cms.

Bases of pots

There is only one pot with foot-ring and this is unstratified (not illustrated). It is of hard black ware with high shell content. All other bases are flat.

This list represents 18% of all stratified sherds now available for study and 11% of the total number

stratified. Those not listed were undiagnostic and in almost every case wall fragments.

Rotary querns

1 Hut C—fig 10a

Two fragments only of the upper stone of a beehive quern of the Hunsbury group.²¹ Together they form less than half of the original.

The section is therefore somewhat idealised and represents the full grinding face—which is flat and 25.3 cms across. The stone is 13.2 cms high (maximum). The handle-socket—the outer handle-hole is missing—is set 3.1 cms above the smooth grinding-face and in shape is an elongated oval.

2 Pit A—fig 10b

This is a good example, though only part is preserved, of an upper stone of Hunsbury type. The well smoothed grinding-face, 28 cms across, is quite flat. There are two very small handle sockets, that to the left of the hopper probably originally of round section, that to the right oval (cf Curwen's figs 3 and 11). The outer finish of the quern is rough. The feed pipe is 3.4 cms across; the stone is at maximum 19.8 cms high. Found by Miss D Day, a local botanist, in 1951.

3 Unstratified, Area IV fig 10d

One half (in two fragments) of the upper stone of a quern of the Hunsbury group. The smooth grinding-face, although broken on either side of the feed-pipe, may never have been completely flat (cf Curwen's fig 11) although the ridge around its edge is due probably to friction against a smaller lower stone. The 'hopper' is of round section and in reality no more than a widening of the feed-pipe into which it leads directly. No handle socket is preserved. Miss Philips has pointed out that many variations in form can occur in this wide Hunsbury group and this is one of them, being somewhat bun-shaped. Grinding face 28 cms across, maximum height 11.3 cms, width of feed-pipe 3.1 cms. Found by Miss Day.

4 Unstratified fig 10e

A nearly complete and well-finished upper stone of Hunsbury type but quite exceptional in that the handle socket is cut *into* the grinding face. I do not know of a parallel to this and the arrangement would seem clumsy and inefficient but it may be preferable to attribute its form to the lack of skill of its maker than to wear during use, especially if the quern is made of the hard Millstone Grit. Further, the hopper is far too large (13.2 cms across at the top) and has been cut so deeply into the quern that there is no room

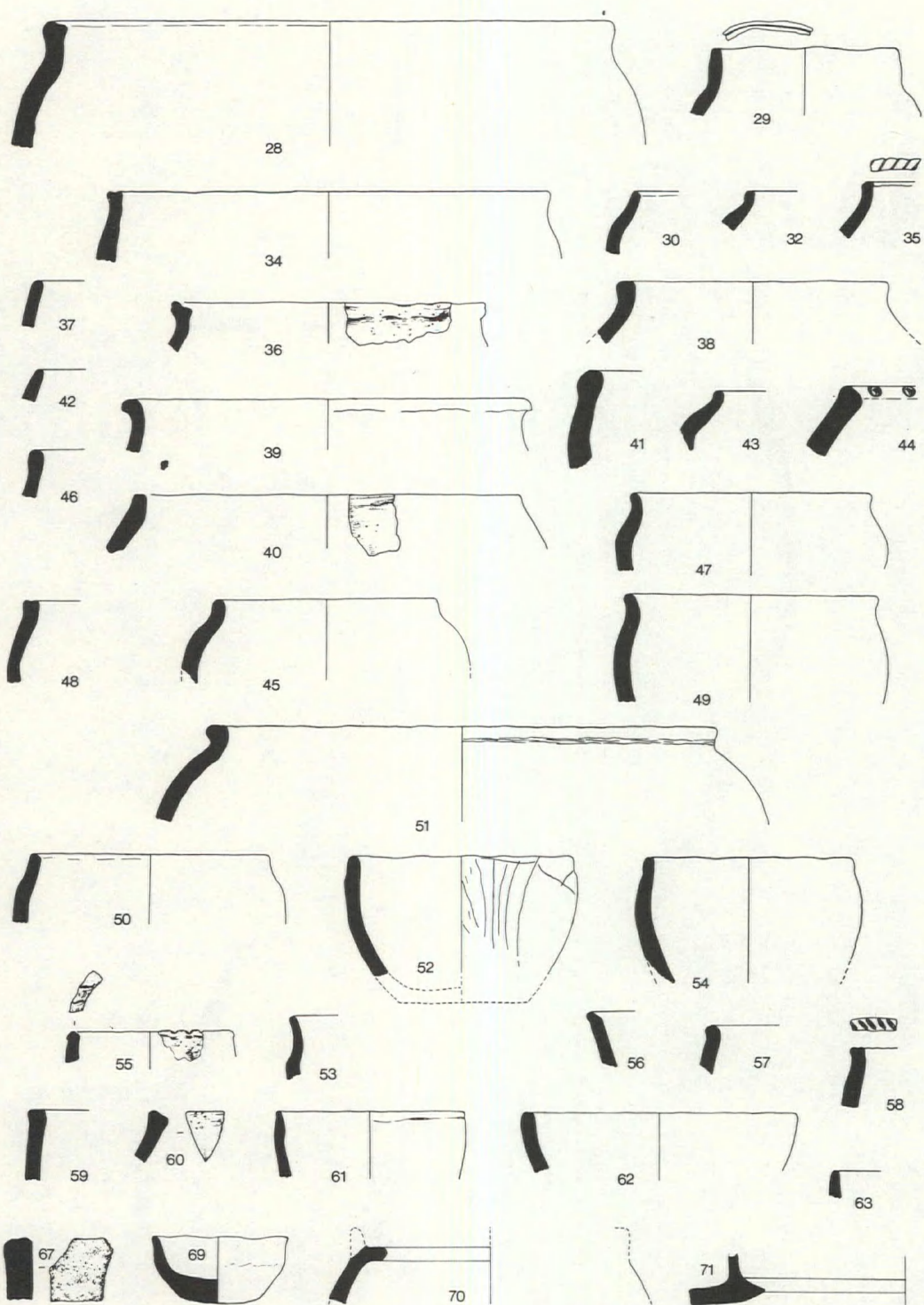


Fig 8 Iron Age pottery. Scale $\frac{1}{4}$ except no. 69, $\frac{1}{2}$

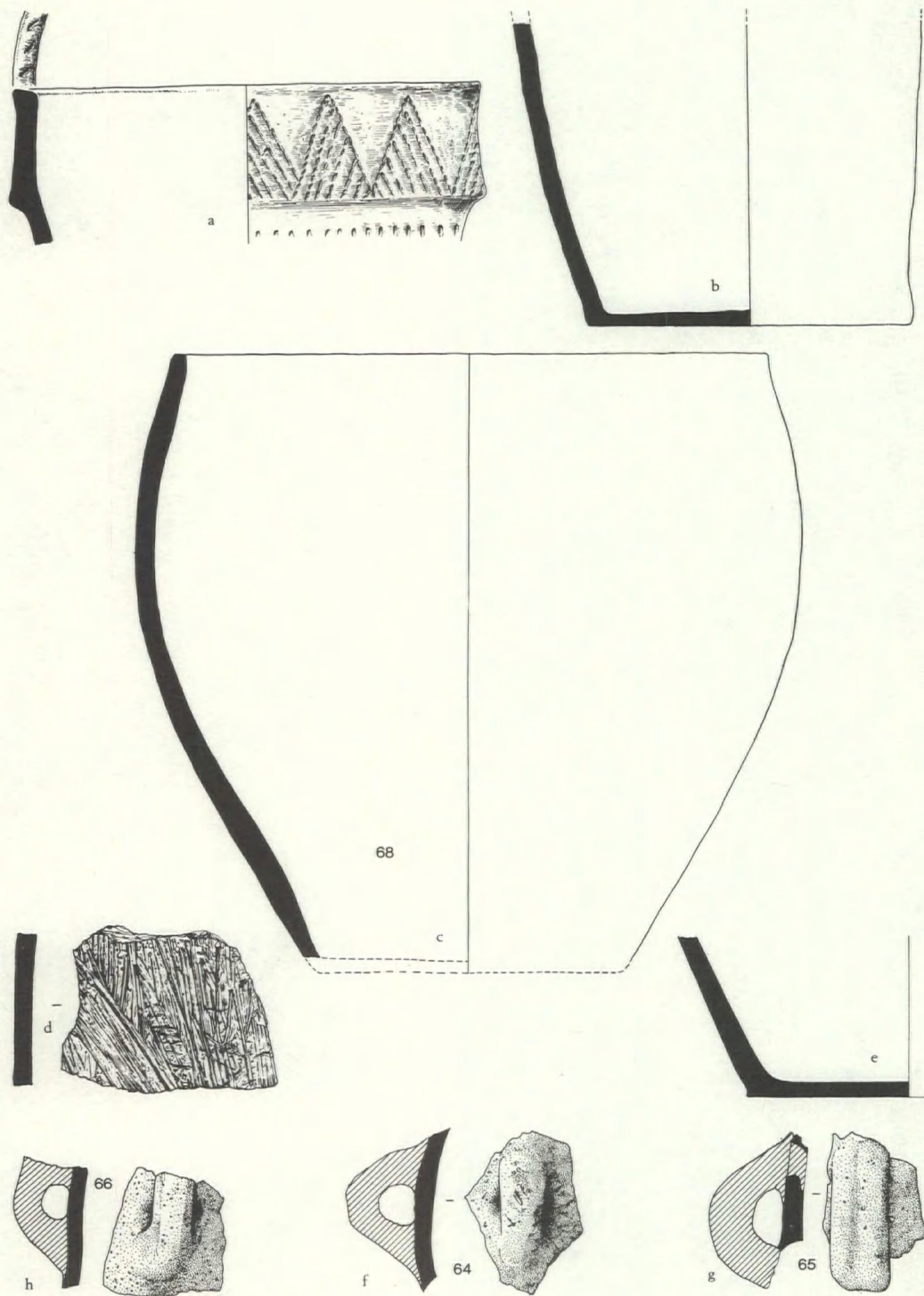


Fig 9 (a) and (b) Bronze Age urn fragments, nos. 1 and 2. (c)–(h) Iron Age pottery Scale $\frac{1}{4}$

for a feed-pipe. The handle socket is of rectangular section, being slightly wider than it is high. The top of the stone is moulded, a feature discussed by Miss Philips. The grinding face has a maximum diameter of 28.6 cms and the quern is 12.8 cms high.

5 Unstratified, from Harrold churchyard fig 10c

Most of a lower stone (in 3 fragments) either of Wessex type²² or Romano-British. Lower stones are not as diagnostic as upper ones, but this one is too conical for the Hunsbury group. Cf Curwen's fig 5 but this example is very thin (approx 5 cms) and could be relatively late in the series. Maximum diameter 33.1 cms; depth of spindle socket 4.8 cms.

There is also one other very fragmentary and unstratified lower stone (No 6) from Harrold in Bedford Museum. It was found by Miss Day.

Mr S E Ellis has reported on the rocks used for the querns below.

Clay loomweight

Fragments of the normal Iron Age triangular type were found, but unstratified. Not illustrated.

Bone objects

1 Awl—fig 11,b

Hut C. Biconical perforation. Length 8.8 cms

2 Needle—fig 11,d

Pit K. Point broken off: biconical perforation, off shaft centre. Length 4.6 cms.

Antler hoe—fig 11,f

P7. This is of red deer antler (not necessarily a young animal) and has a vertical slot at the shoulder, apparently to take a handle which would have been fully secured by binding. Maximum length 17.8 cms.²³

Unstratified bone objects were a gouge or spear-point (fig 11, h) and a peg (fig 11,g)²⁴.

The gouge, fashioned from a sheep's metatarsal, is not fully perforated: the end is broken off. The peg, too, is probably unfinished. Present length of gouge 8.5 cms, of peg 7.9 cms.

Bronze objects

1 Pin—fig 11,c

Pit B. Of circular section: the top is bent and the head broken off. The patina is good. Present length 5.1 cms.

2 Needle—fig 11,e

Pit K. The perforation was apparently made by splitting the shaft: point broken off. Present length 10.1 cms.

3 Triskele mount in open work²⁵—Fig 11,i

From area IV and unstratified. This was found by

the late Mr Edwards in 1951. The design is unusual, being three scrolls, each with a lobed offshoot. No close parallel to this form of triskele has been traced. The function of the ring-mount is suggested, however, by the similar harness-mount roundels from the Stanwick hoard. These are a little larger than the Harrold example and are thought to be purely decorative. A smaller roundel mounted on a ring is known from Berkshire and as this has two rings of chain interlinked, it certainly cannot have been part of the harness.²⁶ The Harrold mount is well preserved, with good patina: maximum diameter 3.3 cms, and of ring mount 1.3 cms. A more detailed report written in 1953 by the late Sir Cyril Fox is given below.

THE PRE-ROMAN IRON AGE—SUMMARY

In view of the impossibility of demonstrating the length of occupation or even its extent at any one period, all the evidence has been taken together in an attempt to say something of the nature of the settlement, its economy and environment, in the realisation that not all the data used need be contemporary. On the other hand, stratification in the pits and ditches *need* not imply long lapses between filling. The intersections of many ditches remain the best evidence for lengthy occupation. The pottery, which is almost without exception a very coarse, ill-fired ware with high shell content, is felt to offer unreliable criteria for dating and to be of most significance locally. Even where parallels (eg in decoration) from other sites and areas have been noted, undue importance should not necessarily be attached to such relationships. These links could have arisen in many different ways.

The huts were probably of wattle and daub (VS 3, 3a). The floors could be cobbled (HUTS I, ?P2 and perhaps ?P1). There is no indication that stone was used in construction. The hearth in some instances could have been on the cobbles (HUTS I and ? P1) and occupation has also been identified by a layer of ash, mixed with animal bones and other refuse, directly superimposed upon the gravel (HUT M).

We learn a little of life inside the hut. Modes of cooking varied. There were heavy pots with lugs (group 5) and a small coarse black vessel with a small perforation below the rim (unstratified and not illustrated). These seem to have been suspended over an open fire. Storage vessels (group 6) were close by—perhaps to hold the flour

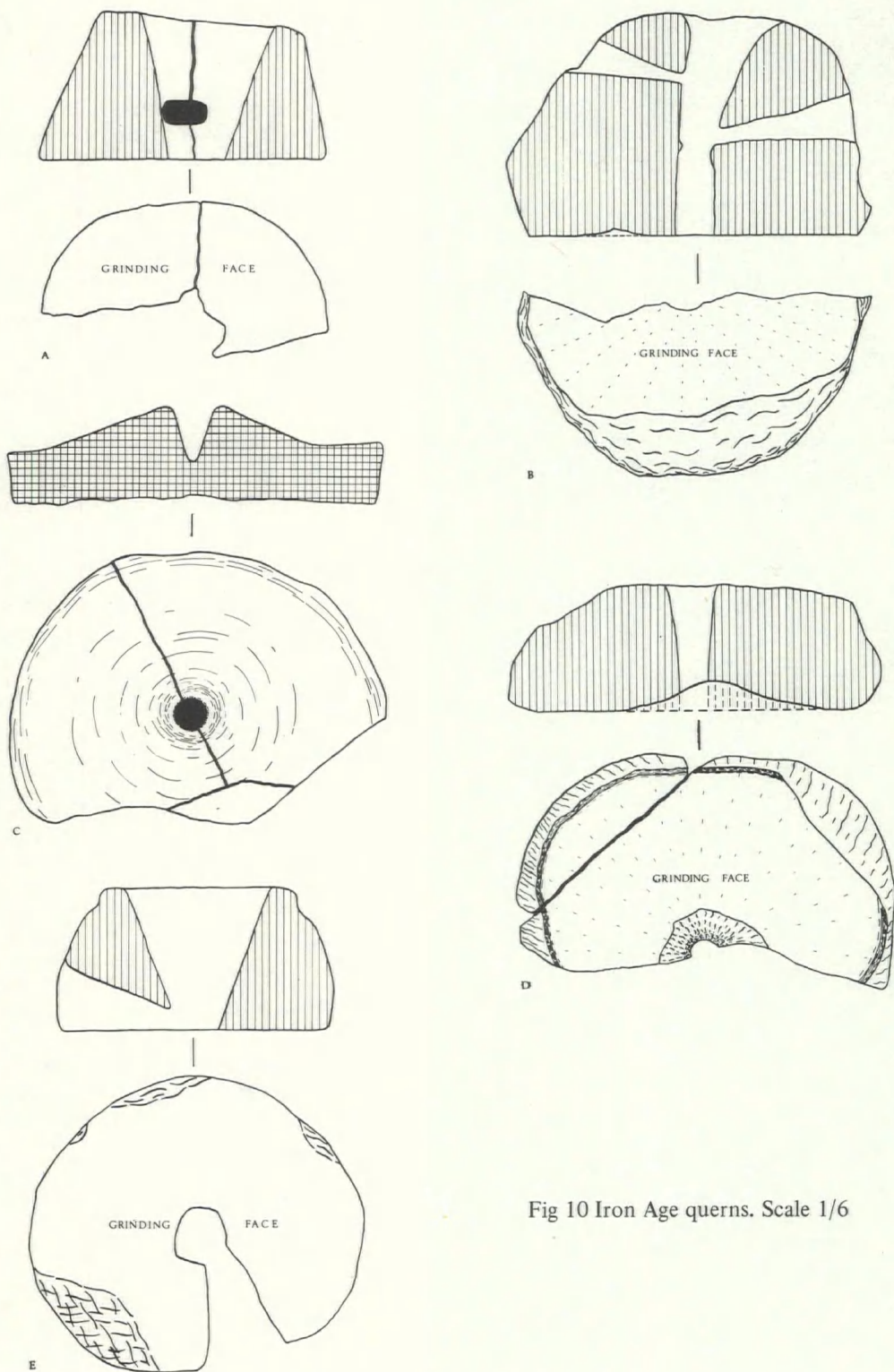


Fig 10 Iron Age querns. Scale 1/6

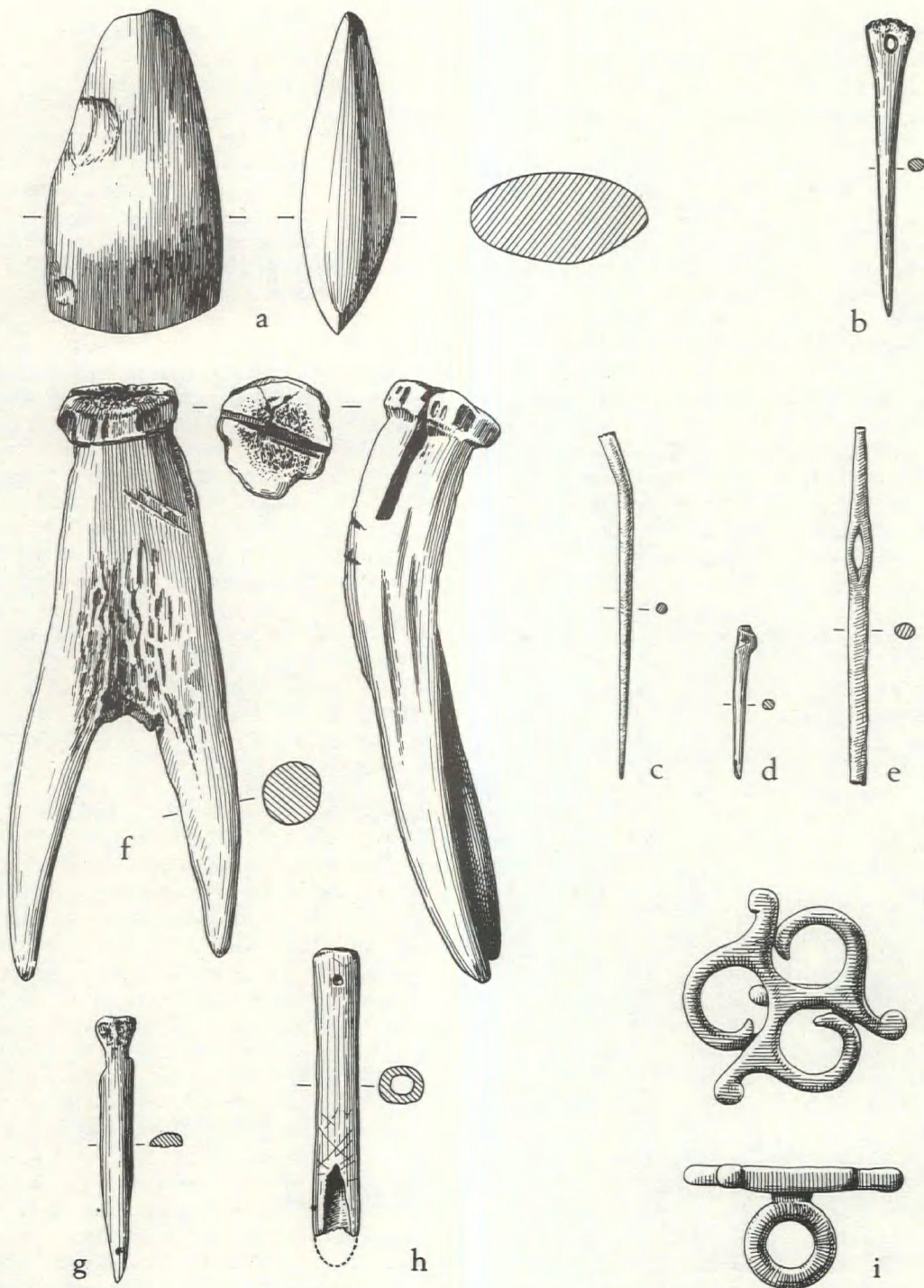


Fig 11 (a) Neolithic axe; Iron age (b) Bone awl, Hut C (c) Bronze pin, Pit B (d) Bone needle, Pit K
 (e) Bronze needle, Pit K (f) Antler hoe, Pit 7 (g) Bone peg (h) Bone gouge (i) Bronze triskele
 Scale (a), (b), (d), (f)–(h) $\frac{1}{2}$
 (c), (e), (i) $\frac{1}{1}$

for the loaves baked in the clay ovens (P6). Weaving is represented by the loomweight. The bronze (PIT K) and bone (PIT K) needles are suitable for sewing lighter garments, the bone awl (HUT C) more for leatherwork.

The only decorative objects recovered were the bronze pin (PIT B) and the attractive triskele mount.

Very near the houses—the exact position is not recorded—was a large ‘working hollow’ of over fifty square feet and depressed two to three feet. Perhaps after the winnowing here—there are no cereal remains from Harrold so we cannot identify the crops—the rotary querns came into use. The rest of the grain, not needed for domestic use that winter, would have been stored for seed and, after parching, sealed in pits lined with clay (P5). The dog (P6) fits easily into this domestic scene. In size we may compare the modern labrador.

The only agricultural implement from the site is the hoe (P7), to be thought of perhaps more in the context of the garden plot than the ‘Celtic’ field. We are a little better informed about the livestock. Mr Edwards and Mrs Carey recorded the bones of:

CATTLE

barrow ditch R—D 13

huts 1, M, ?N, ?P1, ?P2

gullies G1, 2

pits B (worked horn-core only), F, L, P7, 12, 13, 16, 17, VS16

ditches VS 1, 2, 3, 3a, 6, 7, 8, 10, 13, 15a, 17, 18, 18a, 20, R—D 12, 14

SHEEP

huts I, ?P2

gullies G1, 3

pits L, P7, 13, 16, 17, VS16

ditches VS 2, 3, 3a, 8, 10, 13, 18, 20, R—D 12

PIG

huts M, ?N

pit B

ditch VS18

HORSE

pit P11

ditches VS 3, 10, 11, 17, R—D 12

No figure is available for the percentage of meat bones. Nor is there any means now of deciding the age of the animals and thereby estimating how many of them were kept through the winter.²⁷ However, extensive pasture for both cattle and sheep is implied. It may be that forest in this part of Bedfordshire in the Iron Age was limited

especially as pigs seem to have been kept in very small numbers. The red deer antler is perhaps evidence of some woodland but the general impression is of an open and fully farmed landscape. No evidence for fishing has been recovered. The community's cemetery has not been found. The burial in PIT A was presumably exceptional. Contacts between Harrold and elsewhere are very difficult to establish and assess. The only hopeful leads are perhaps the pottery and the triskele mount, but close parallels for the openwork design seem hard to find. Most of the pottery is apparently of local manufacture²⁸ but insufficient Iron Age pottery from this part of England is published for local sequences to be established. Combing of the wall surface has been discussed by Kenyon²⁹ and other sites can now be added to her list³⁰. At Harrold this decoration can vary from faint brushing to heavy scoring perhaps produced by bunches of twigs. The other decoration on the pots occurs too generally in southern England for parallels to be of value.

BRONZE AGE CREMATIONS^{30a} By Dr I W Cornwall

The contents of cinerary urn 2

Cremated human bones, very well comminuted and incomplete, but representing most parts of the skeleton.

Skull

Recognisable fragments were mostly from bones of the vault, many showing still-open sutures, even on the cerebral aspect. Two fragments of the maxilla, with an open intermaxillary suture, displayed alveoli for incisors, canine and one premolar. A solitary stout single root of a tooth (? canine) fitted the canine alveolus acceptably. Other separate fragments were of the petrous, mastoid and squamous parts of one temporal bone. There was nothing recognisable which was assignable to frontal or occipital, but the bones, though well calcined and shrunken, were still fairly thick, thus indicating a stoutly-built individual.

The *axial skeleton and girdles* provided only a few nondescript fragments of much eroded vertebral centra and detached processes. Some strongly-curved pieces, of which the form did not seem to be due to distortion in the fire were probably pieces of pelvis, from the region of the sciatic notch.

Pieces of the shafts of *ribs and of long bones*,

badly cracked and warped by heat, were well represented but hardly assignable to individual bones. In general, their weight supports a stout build for the subject. The most readily recognisable were parts of the articular heads and condyles of humerus and femur and the proximal head of one radius. One bone, a tibia, was identifiable by several incompletely calcined fragments.

The *extremities* were represented by several distal ends of metapodials and phalanges and there was one complete ungual phalanx, probably of a 2nd or 3rd finger.

The generally stout bones, open cranial sutures, the tooth-root, fully closed, and the completely ossified hand and foot fragments point to a young adult, probably under 25, and possibly a male, though the remains of a fairly well-developed mastoid process was the only recognisable positive indication of sex. One needs several such features, all pointing to the same conclusion, for any reasonably certainty on this point.

Partial contents of one of broken cinerary urns

A small collection of only a part of the incombustible remains. The bones are well calcined and broken into very small pieces. Parts of the skull, mandible, long bones, extremities, vertebrae and ribs were represented, but in most cases not more closely assignable. There were no teeth, or even roots of teeth, which commonly survive. The skull-fragments, greatly warped, had nearly all divided through their thickness into inner and outer tables, which made their recognition as to position in the skull even more difficult. The only trace of a suture seen was partly closed by synostosis, which suggests a fully adult age for the individual.

Small fragments of a petrous bone and of the middle of an occipital squama were, however, distinguished.

One long bone was entire—a second phalanx of a 4th or 5th finger. The distal head of a metatarsal was also found. Most long-bone fragments were little bigger than this and their attribution could only be guesswork. The thickness of a few of them suggested strong, well-muscled bones and the subject was, therefore, perhaps male. A stoutly built (?) male, 30+ years in age.

OVENS OF BAKED CLAY By Dr G C Dunning

Fig 4. Among the contents of Pit 6 were about a dozen fragments of thick, roughly baked clay with smoothed surfaces, light red throughout,

with sparse large flint grits. Several joins were found, making up two large pieces about 10 in and 9 in long respectively, and both about 1½ in thick. These pieces have the moulded edge of a circular hole about 5 in in diameter. This large hole was surrounded by a series of smaller holes, about ¾ to 1 in in diameter, the margins of which are thickened and burred over on both sides but more so on the upper surface. The spacing allows for a ring of 8 holes.

A piece of another oven is illustrated in Fig 4, top right. This is not labelled, so that its find-spot and associations are unknown (cf HUT C). This is also part of a base, about ¾ in in thickness, and so more heavily made than that from Pit 6. The central hole is also 5 in in diameter. Outside this are parts of two adjacent holes, about 0.9 in in diameter, closer together than on the other base, allowing for a ring of 10 holes.

The pieces belong to the bases of ovens of a type recognised at several Iron Age sites in southern Britain. At Maiden Castle, Dorset, two ovens were found in position on the floors of huts; both ovens were about 2 ft in diameter at the base, with sufficient of the sides remaining to show that they were dome-shaped.³¹ One oven had a limestone floor in the central hole in its base. At the habitation site at Eldon's Seat, Encombe, Dorset, an oven was found in Hut 5 (dating between the 5th and 3rd centuries B.C.).^{31a} The oven was close to the central hearth within the building. Its floor had been paved with a large limestone slab, and the interior strengthened with potsherds set into the clay sides before the first firing. It is possible that the oven was built in two levels, the lower chamber for heating with embers from the adjacent hearth, and the upper for the loaves; insufficient of the structure survived, however, to test this point. At other sites, such as Little Woodbury³² and Boscombe Down West, Wilts³³, oven-bases of similar type have been found; at both these sites the large central hole in the base is surrounded by a ring of smaller holes, thus providing the closest parallels for the finds at Harrold. The purpose of these smaller holes has not been explained, but apparently they had some function in the baking process.

The interest of the finding of ovens of baked clay at Harrold is twofold. First, in showing that the same methods of baking bread were followed here as on many sites of the earlier part of the Iron Age in southern Britain; and secondly, in

extending the distribution of this type of oven as a cultural element well into the Midlands. It may be added that recently fragments of daub-like baked clay found at some 15 hill-forts and other sites along the Welsh Marches and in North Wales have been discussed.³⁴ Partial reconstruction shows that the objects were tall and conical, and closed at the narrow top. The authors interpret them as another type of Iron Age oven, used by the native population of the region and superseded in the Roman period by the large southern type of oven.

THE QUERN SAMPLES By S E Ellis

Only one of the samples (no 1) is undoubtedly from the Millstone Grit, and this is not typical of the area Derbyshire to South Yorkshire; although I cannot say positively that it is not from this area, the feldspars which it contains suggest a source area further west and south, say the north Welsh border, or perhaps Staffordshire. Nos 4 and 6 are also *possibly* from the Millstone Grit, but may be from a younger source, perhaps of the same age and from the same general area as nos 2, 3 and 5. These latter closely resemble sandstones from the Hythe Beds of the Lower Greensand in Kent and Surrey. Nos 2 and 3 and calcereous and no 2 is indistinguishable in thin section from the Kentish Rag of Ashford and other places in Kent, which of course has been quarried for building stone and hones since Roman times. No 3 is a finer grained stone of the same type, and no 5 is a cherty sandstone formed by silicification of a similar stone, and is of a type very common in Surrey and Kent. Thus we have three stones (2, 3 and 5) certainly from this latter area, two (nos 4 and 6) just possibly from this area but more probably from the Carboniferous of the north or north west; and only one (no 1) undoubtedly from the Millstone Grit of that area.

A BRONZE ORNAMENT OF TRISKELE DESIGN

By the late Sir Cyril Fox

This small bronze is golden brown in colour, 1¼" in diameter, having an openwork pattern—a triskele, knobbed; there is a central ring at the back for attachment, ½" in diameter.

Each of the three elements of the design, merging at the centre as a triangle with incurved sides, is itself a similar triangle having at its free ends a downward coil with slightly expanded, clean-cut end, and an upturned knob.

This is a variant of a motif "evolved by Celtic craftsmen on the Continent from the palmette, possibly from elements of the flower-form itself, but more probably from the naturalistic sprays that were often associated with it in Greek art." There are two lines of descent in Britain: one the triangle with one lateral tendril, illustrated by the Llyn Cerrig plaque;³⁵ the other the triangle with two laterals "variously illustrated in the Beckley (Oxon) brooch, the Newnham Croft (Cambs) bangle, the horn-cap from Brentford and the Wood Eaton (Oxon) stud." Now we have an example from Bedfordshire which confirms the type as characteristic of Central South-Britain.

The small size of the piece suggests that it is a dress-fastener—the loop would have been passed through overlapping holes, and a toggle would have secured the whole.

The maturity and finish of the design suggests a date in the Celtic period as late as the associations of the finds permit: first half of I century AD. Objects of this class with designs of Celtic character, we found in the Roman period; compare a looped bronze ornament from Icklingham, Suffolk, probably of II AD.³⁶

*THE ANGLO-SAXON CEMETERY*³⁷

by Vera I Evison

All the Anglo-Saxon material from this site was rescued by Mr Edwards, with the exception of the pot and sherds found by Mrs Carey in her feature XVII. The sources of information about these graves are the preliminary report by Mr Edwards and a copy of jottings in his notebook. The information from these and the finds have been collated below. Of the sixteen skeletons noted, one was a crouched burial in Area IV accompanied by Iron Age sherds (above) and two were medieval burials found east of the main side and consisting of the remains of three males with associated thirteenth-century pottery. The Iron Age burial was given the number 1, and the Anglo-Saxon burials were numbered 2-14. A report on the bones by Mr C B Denston of the Duckworth Laboratory of Physical Anthropology, Cambridge is below. According to Mr Edward's notes, there were thirteen Anglo-Saxon skeletons, of which he noted that one was a small child (grave 11) and one was 6 ft long (grave 3). Information

from grave goods establishes that grave 3 was a male, and graves 5, 8, 14 and probably 13 also were female. The bones submitted to Mr Denston were not identified by numbers, but it was possible to establish the presence of a male 6 ft, tall, of two immature individuals, and of three females and three males. From the estimate from the bones of a maximum of sixteen individuals, it seems probable that some bones of each of the thirteen skeletons were rescued. The cemetery obviously contained a normal proportion of male and female adults and of children.

The thirteen skeletons were found in Area I. They were all damaged by the heavy scraping machine and, working alone in this scene of intense commercial excavating activity, Mr Edwards managed to record details of each grave, the state of the skeleton, its orientation and accompanying grave finds. Some indications of position of the graves are preserved, but there was obviously no opportunity for surveying work to make an accurately measured plan.

Ring ditch 2 in the western part of Area I was 59 feet in diameter, the ditch being 3 ft 9 in wide and 2 ft deep below gravel. It is recorded that some Saxon skeletons were buried within this circle and that graves 5, 6 and 7 were on the eastern edge, outside the circle. Some of the graves, at least, were therefore presumably secondary burials on a Bronze Age barrow, although there is no evidence for the dating of this barrow, other than its proximity to the others. On the plan (fig 2) the Saxon cemetery is indicated some way to the north-east of this, and it is not known how the graves were distributed between these areas, i.e. whether it was one continuous cemetery, or whether there was a separate cluster of graves possibly on another, unrecorded, barrow. The number of secondary Anglo-Saxon barrow burials by inhumation in England has been listed as 115,³⁸ and Harrold may now be added to this list.

Some graves were disposed in a regular way, i.e. numbers 9 to 12 'were in an almost straight line', No. 3 was 'nearly alongside of No. 2.' Mr Edwards noted that all but one skeleton (No. 7) was orientated east to west, by which he presumably meant that the skull was at the east and the feet at the west, an unusual direction for Anglo-Saxon burials. However, this must have been the case, for Mr Edwards further notes that the odd one out, a skeleton (No. 7) under No. 5

was laid west to east. No. 5 was buried on top of, and at a slight angle to No. 6, and No. 7 was a fragmentary skeleton aligned to the opposite direction, so that one may conclude either that not all graves were marked at the time of deposition, or that the cemetery was in use for a long time so that markings were lost.

GRAVE INVENTORY

Grave 2.

Skull missing, rest damaged by scraper.

Grave 3.

Skeleton 6 ft long (nearly alongside of 2).

Sword (fig. 12a) in fragments, but complete except for tang and extreme tip of blade, total length 75.4 cm, width 4.8 cm. Remains of the scabbard are rusted to the blade, and impressions on the surface are presumably of the fur side of a skin lining to the scabbard. An X-ray shows no pattern-welding. The hilt was under the right arm, the blade crossed the body to the left side.

Hone, (fig. 12c) 17.5 cm x 2.5 cm x 2.2 cm; grey stone, roughly square in section with two corners worn down; one side is flatter and smoother than the others, but all four faces are smoothed. One end is chipped by use as a hammer. Petrographical report below. Lying at the tip of the sword. Fragments of *iron bucket*; the base (fig 12h) 12.5 cm in diameter, is riveted to the inside of the walls which slant outwards. A piece of the rim shows that the sheet metal was folded outwards against the wall for about a centimetre, and also indicates a diameter for the top of about 21 cm. Other iron fragments which may be parts of a handle are; a bar (fig. 12f) 18.5 cm long and 1 cm wide which bends at a right angle at one end where it is riveted to another iron fragment; a similar bar, (fig. 12g) 7.5 cm long and slightly bent; a hook (fig 12e) length 5.2 cm. Near the feet.

Iron spikes of a *heckle* (figs 12i-k); each spike is about 9.5 cm long, roughly round in section and tapering to a point; at the blunt end traces in the rust show that each spike was set into a wooden board to a depth of 1.5 cm. Found near the feet, bunched together in an upright position.

Spearhead (fig 12b) length 50 cm; long lenticular blade, short split socket, three chevron grooves each side at junction of socket and blade. Found on a dump, but probably from this grave.

Glass bead: a bead, flat disc, dark green with

spiral white trail, (fig 13j) was kept separately from the rest, and may therefore be the one from this grave.

One of the *knives* (fig 14a-e) is said to come from this grave.

Grave 4

Damaged skeleton.

Grave 5

Complete skeleton, 5 ft 4 in long, right arm by the side, left arm bent so that the hand was near the head. Two *beads*, one glass, one 'faience', unidentifiable.

Grave 6

Skeleton on its side, the skull on the right of, and near the shoulder of grave 5, one leg running under No. 5.

Grave 7

Femur and tibia of a skeleton in the same grave as 5 and 6 but lying in the opposite direction, W-E.

Grave 8

Remains of skeleton, *bronze ring* (fig. 13k), diam. 4.5 cm with hook and loop fastening, on which is threaded a smaller bronze slip-knot *ring*, a bronze figure-of-eight *loop* and a melon *bead* of blue translucent glass and white threads round the circumference.

Grave 9

Remains of skeleton, *knife* (unidentifiable, one of fig. 14a-e).

Grave 10

Remains of skeleton, *knife tang* (unidentifiable, one of fig 14a-e).

Grave 11

Remains of small child, few milk teeth.

Grave 12.

Remains of skeleton.

Grave 13.

Remains of skeleton, no skull or lower legs, left arm across lower part of chest. Part of a 'short spear' (?*knife*) was underneath the body, and two *beads* were found 'in the soil' (unidentifiable).

Grave 14

Remains of skeleton, no skull or lower legs, right arm across body, left arm at side. *Silver ring* (fig 13a) diam. 2.8 cm, zones of transverse scoring. *Silver ring* (fig 13b), diam. 2.4 cm. Small *bronze ring*, (fig 13c) broken, diam. 0.9 cm. Cabochon almond-shaped *garnet*, (fig 13d) length 1.8 cm. No positions recorded.

Unassociated finds

Glass beads: Disc, dark green, three red horizontal

trails round circumference, with two zigzag trails between (fig. 13e).

Spherical, light blue iridescent, cracked (fig 13f)

Cylindrical, light green (fig 13g)

Cylindrical, light green with dark streaks (fig 13h)

Biconical, yellow, remains of a core of different glass (fig 13i).

Bronze buckle (fig 131) with double plate fastened by two knob-headed rivets; the top of the plate is decorated by ring-and-dot ornament. Length 2.1 cm. *Bronze ring* (fig 13m) diam. 1 cm.

Two bronze triangular plates (fig 13n, o) perforation at each corner, length 2.5 cm.

Bronze plates 1 cm wide, one length 2.1 cm and pierced by two flat staples, one piece length 4 cm and one 2.7 cm; a *bronze rivet* (figs 13p-s).

Silver fragment (fig 13t) length 1.7 cm, curved section.

Iron rust lump with small *bronze ring* embedded (not illustrated).

Knives with angled back, lengths 8.4 cm, 10.4 cm, 9.5 cm, 17.5 cm plus tang 3 cm, straight back 13.1 cm (fig 14a-e).

DISCUSSION OF GRAVE GOODS

Grave 14 contained parts of a necklace; an almond-shaped cabochon garnet which must have been set in a gold or silver pendant backing, and bronze and silver rings (fig 13a-d). The cabochon garnet is found in the latest Anglo-Saxon furnished graves, e.g. in Kent³⁹ and on the Desborough necklace.⁴⁰ The silver rings occur on necklaces of the same period, and a lucky survival of thread in one cemetery at Leighton Buzzard shows one method by which they and beads were strung together.⁴¹ The single bead threaded on a bronze ring found in grave 8 (fig 13k) is also common in late cemeteries.⁴²

With the exception of grave 3 the association of the rest of the objects with any particular grave is not known. The small bronze buckle (fig 131) with doubled plate and ring-and-dot decoration is similar to the simple type usually with three rivets which occurs in late graves.⁴³ The bronze plates (fig 13n-s) may all have been fitted on a wooden container, as one rivet must have pierced a wall thickness of 4 mm. No curvature is visible on any of the plates, so that they may have been fitted to a wooden box. A drinking vessel may be indicated by the silver fragment (fig 13t) which could have been part of a U-sectioned rim binding.⁴⁴

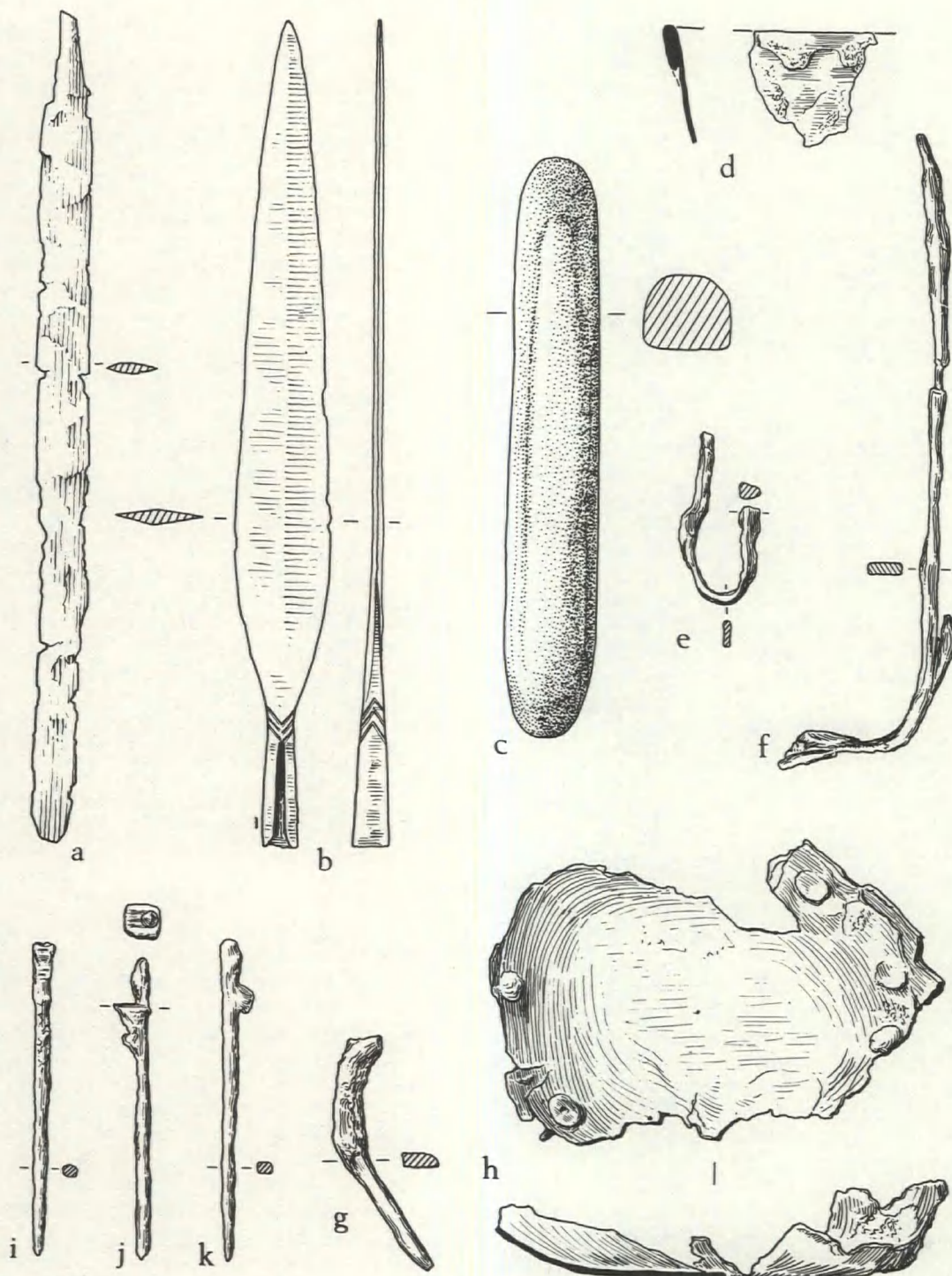


Fig 12 Grave 3: a. sword, b. spearhead (found on dump but probably from this grave), c. hone, d-h iron bucket fragments, i-k. iron spikes of heckle. Scales a 1/6, b 1/4, c-k 1/2.

Grave 3 is quite different from the other graves, and fortunately the associated objects, as well as their positions in the grave, were carefully noted. There is some uncertainty regarding three of the items. The spear was found on a dump nearby, and not in the grave, but Mr Edwards considered there was strong probability that it had been carried there from this grave by the scraper. It is not known which of the knives retrieved was the one found in grave 3, and this applies also to the bead.

The sword, unfortunately, consists only of the blade, and so has no datable features. None of the knives are distinctive, and could belong to any period of furnished Anglo-Saxon graves.

The iron bucket (fig 12d-h) has been discussed by Dr Dunning in connection with an iron pail of similar construction which was found on the same level as a seventh-to eighth-century glass vessel in the filling of a well at Pagan's Hill, Chew Stoke, Somerset.⁴⁵ The reconstruction suggested by Dr Dunning as shown in his fig 23 is certain as to the lower half of the vessel and the turned-over rim, but there may be variations of a few centimetres in the height and diameter. A sheet of iron was curved round and riveted where its edges overlapped, and then riveted to the outside of a circular base with slightly upturned edges. The handle is not so certain, for although the bent iron bar riveted to a sheet fragment remains, there is no direct evidence of its attachment to the bucket. Also, among the fragments there is a hook, (fig 12e) which could represent the end of a handle of the Pagan's Hill type. If this was not its function, it might have been the end of a stirring rod or ladle which hooked over the edge of the bucket.

The parallels to this bucket brought forward from Sutton Courtenay are no doubt fragments of iron vessels of some sort, that from House IX⁴⁶ representing a patched base, but there is no indication of the rest of the shape of the vessel, while amongst the fragments from House XIII⁴⁷ there is, besides the base, a piece of a lug pierced by a rivet which shows that the vessel must have been in the shape of the lugged pottery vessels made in imitation of the bronze vessels with triangular lugs. The Sutton Courtenay vessels no doubt belong to the pagan period, but no other iron vessels seem to be known from pagan Anglo-Saxon graves or dwelling sites. Some do occur in Viking graves, however, e.g. in Norway, Peterson

lists a number, some of which are flat-bottomed, straight-sided vessels like this one.⁴⁸ The Harrold bucket was probably intended for a special purpose, and this may have been connected with its owner's occupation with wool- or flax-working indicated by the heckle. It would have been a suitable container for the stale urine commonly used in wool scouring.

The heckle,⁴⁹ also is an object absent from Anglo-Saxon graves, but there are a number in Norwegian graves of the Viking period, with a few from the Merovingian period.⁵⁰ Most of them come from women's graves, but there are a few with men. Two have been found in Viking graves in the British Isles; from a woman's grave at Ballinaby, Islay,⁵¹ and from a double grave of a man and woman at Barra in the Hebrides.⁵² The nearest approach to the heckle in earlier times are the wool combs known from Roman Britain, but they are a different kind of implement,⁵³ and one similar to those was found in House XI of the Anglo-Saxon village at Sutton Courtenay.⁵⁴

Norwegian heckles consisted of a flat piece of wood which held two rows of upstanding iron spikes on which the fibres were thrown for combing. The spikes were from 7.8 to 14.5 cm long, most being 10-13 cm long, as compared with the Harrold spikes 9.5 cm long. The heckle from Rapstad, Vang, Hedmark illustrated by Rygh 433⁵⁵ and Petersen, fig 171, had an iron sheet covering to the wooden backing. If the Harrold heckle was of this shape, the 39 or more spikes would have been arranged in two or more rows, but there might have been one row only if it were like the comb from Kirkhus, Ardal, Hjelmeland, Rogaland,⁵⁶ where 34 spikes were set in one row in a cylindrical wooden rod 32 cm long. Without any definite trace of the wooden base it is not possible to be certain whether this was a heckle or comb, although in view of the high number of teeth, it is likely that, if it is not a heckle, there are two combs represented, as happens in most Norwegian graves. The note by Mr Edwards that the spikes were found bunched together in an upright position, however, may be taken as assurance that it was a heckle.

A hone or whetstone occurs in some pagan graves.⁵⁷ The Harrold stone (fig 12c) belongs to the same sub-group of rocks as the whetstone with carved human head from Hough-on-the-Hill,⁵⁸ and belongs to the general type of sand-silt greywacks which includes the well-shaped large hone from Uncleby,

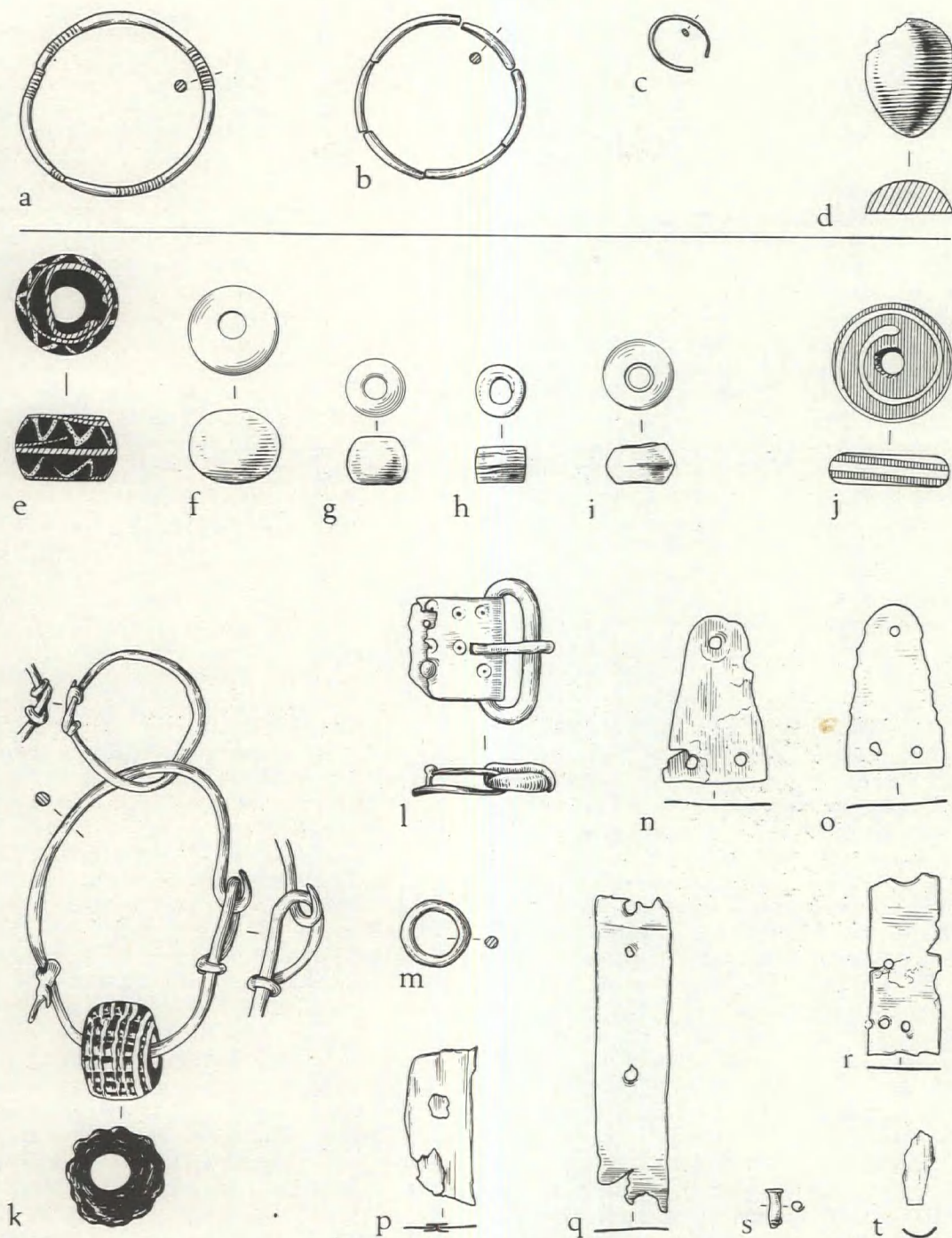


Fig 13 Grave 14: a,b silver rings, c bronze ring, d garnet. Unassociated: e-j beads. Grave 8, k bronze rings and bead. Unassociated, l bronze buckle, m bronze ring, n-r bronze mounts, s bronze rivet, t silver fragment.
Scale 1/1

Yorks.⁵⁹ and one from grave 24, Fonaby, Lincs.⁶⁰ The Sutton Hoo whetstone⁶¹ also may belong to this type. Although there is a great difference in the size of the Harrold and Uncleby hones, (lengths 17.5 cm and 47 cm respectively), they are both long, tapering and rounded at the ends, and nearly square in section. Another example of this shape, 29 cm x 3.5 cm x 3.5 cm with a perforation at one end was found at Faversham, Kent,⁶² but has not yet been petrographically examined. As no other hones are like these in shape, size and material, and as all five occur in Anglo-Saxon cemeteries of the sixth to seventh century, this suggests there might have been a common source of whetstones manufactured for trade at this period rather than a source of random stones picked from the Drift by individuals for their own use. Of the two most likely sources suggested on petrographical grounds, southern Scotland or the Rhineland, the latter is more in line with archaeological evidence which stresses trade with the continent at this period rather than with the north of the country, for traces of the pagan Anglo-Saxons north of York are scarce indeed. However, the only positive petrographic comparisons of these early Saxon greywack hones have been made with rocks in the Southern Uplands of Scotland. Added to this is the fact that the find spots of most of these hones are in Anglian parts of the country, in Bedfordshire, East Anglia, Yorkshire and two from Lincolnshire, so that the northern route is perhaps the more feasible.

The one bead found at the neck may have been used as the fastening of a garment. A single bead at the neck has been noted in a late furnished grave of a skeleton identified as probably male at Northolt, Middlesex,⁶³ and a single bead, position not noted, occurred in the grave of a skeleton with seax and knife at Purton, Wilts.⁶⁴ However, the position of the bead at the neck would be only about 6 in from the hilt of the sword, so that it might have had the function of a sword-bead.⁶⁵

The spearhead is a strong weapon with pleasing lines. It has no fellow in pagan graves in this country, except inasmuch as spears begin to become as long as this in later graves, sometimes with the socket just as short in proportion to the blade, e.g. at Holborough, Kent, grave 7 with bronze buckles of types current in the seventh century,⁶⁶ at Horndean, Hants., grave S.14 with

a cone-shaped shield boss,⁶⁷ at Gilton and Siberts-wold in Kent,⁶⁸ and Marina Drive, Totternhoe, Beds., grave B.11⁶⁹. The shape of wide, leaf-shaped blade and short socket is the basic shape of the Carolingian winged spears, and is also particularly near to the proportions of the Vendel type of spear in Sweden of the seventh century, except that all the continental sockets have been welded together, and the Harrold socket has been left open. The same shape was noted in eighth-century graves in the northern area of Germany,⁷⁰ and there are occasional continental examples of these with split sockets.⁷¹

The chevron grooving at junction of blade and socket does not occur in pagan graves here, but can be found in Alemannic graves on the continent.⁷² In England the chevron marking occurs on a spearhead, 18.5 cm long, with no provenance in Reading Museum. A spearhead from the Thames at Wandsworth⁷³ is in fact very like the Harrold spear, and others with chevron markings also come from the Thames or Thames Bank.⁷⁴ As pointed out by Sir Mortimer Wheeler, the custom of retaining a split socket continued in this country. The dating of the type rests on its non-appearance in pagan graves, and its occurrence only as river or casual finds, added to which are the continental parallels of the seventh and eighth centuries in form and markings. An eighth-century date seems reasonable for its beginning, but how long it continued in use in this country after that is unknown.

The contents of grave 3 therefore present a perplexing mixture. There is no doubt that the other graves establish this as an Anglo-Saxon cemetery which was in use by the late seventh or eighth century, but it is not known how the graves were grouped, or whether grave 3 was near to any of the other graves except 2 which was unfurnished. The sword blade could have belonged to an Anglo-Saxon or to a Viking. The whetstone is a type used in England from the sixth century, and a single bead at the neck of a male from the late seventh century. The spearhead, if it is to be considered as an associated object, could have been in use here by the eighth century. Lack of finds of assured context of later date in this country makes it impossible to guess how long these types continued in use. Iron buckets and heckles are completely unrecorded from Anglo-Saxon graves but are common in Viking graves. To be set against this is the rarity of Viking graves

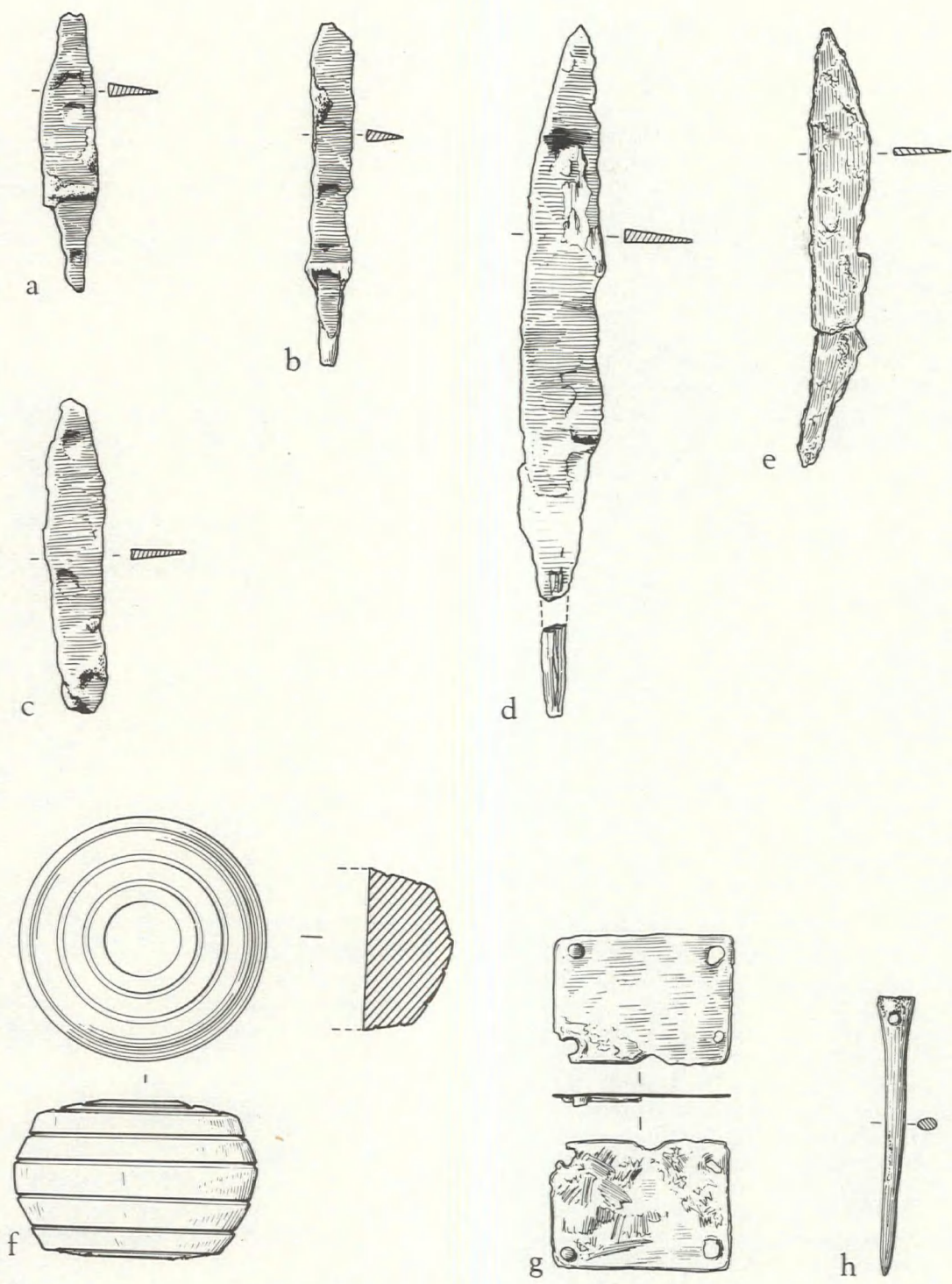


Fig 14 a-e Unassociated knives from graves. Hut J, f spindle whorl, g bronze plate. Hut D, h hone pin.
 Scales a-e 1/2, f-h 1/1

in the south of England, for they amount only to five.⁷⁵ However, the sum of the evidence seems to indicate that grave 3 was the grave of a Viking who was buried in an Anglo-Saxon cemetery just within the boundary of the Danelaw, and his Anglo-Saxon possessions of the spear and hone suggest the ninth rather than the tenth century, since both are related to earlier forms, and by the tenth century 'schist' hones were being imported from Norway.⁷⁶ The unanswerable question is raised as to whether any of the cremations or tumuli here could also belong to the Viking period, and whether this was partly a Viking cemetery like the Danish site at Heath Wood, Ingleby, Derbyshire.⁷⁷ There is, however, no other material of this period salvaged from the Harrold site.

THE ANGLO-SAXON SETTLEMENT DESCRIPTION OF FINDS

Contents of 'Pit J'⁷⁸

1. *Bone spindle-whorl* (fig 14f), diam. 3.5 cm, width 3.2 cm, biconical, four decorative grooves round circumference and two on each face.
2. *Bone needle* (missing)
3. Rectangular *bronze plate* 2.7 cm x 1.9 cm, perforated at each corner, one rivet remaining; traces of ?leather on one side (fig 14g).

Anglo-Saxon pottery. The following group of sherds are of black flaky ware with large flint grits and a burnished black surface. They were in the same bag as sherds marked as unstratified, but as some of the unstratified sherds matched up with J sherds, it is probable that they all come from the J area.

1. Two sets of four parallel lines, one set a standing arc framing a vertical boss just below the carination, the other running in a diagonal direction; oval depressions stamped in nearly vertical rows (fig 15a). Also an unstratified sherd (fig 15f).
2. Everted rim of bowl with carination, four horizontal grooves on neck with a row of three ring stamps probably made by the end of a stalk, and a row of cross-in-circle stamps below; thin ware (fig 15b). One sherd unstratified.
3. Everted rim with three horizontal grooves on neck and vertical facets at intervals on carination (fig 15c). Also an unstratified sherd.

4. Everted rim (fig 15d).
5. Partly burnished exterior, scoring inside (fig 15e).

Unstratified sherds

6. Bowl with everted rim, three horizontal grooves on neck and carination (fig 15g).
7. Two horizontal grooves and one deeper groove. (fig 15h).
8. Carination with diagonal parallel grooves below. (fig 15i).

There were two *sherds* from J of harder ware, also black and burnished:

9. Everted, slightly square rim (fig 15j).
10. Shouldered pot with slight bosses on the shoulder (fig 15k).
11. Sherd of hard, black ware with projecting grits, sharply combed on the outer surface (fig 15l)—probably medieval.

Roman pottery

1. Pot base, red colour-coated, trimmed for use as lid (fig 15m)
2. Sherds of Martres de Veyre f.18/31, Trajanic.
3. Sherd of Lezoux f.37, late Antonine. (These last two pieces not as weathered as the rest).
4. Red colour-coated sherd, imitation Dr.38.
5. Small sherd of red colour-coated ware from the Oxfordshire kilns; rouletting as Hut D.
6. Rim sherd of red colour-coated ware.
- 7,8,9. Colour-coated sherds, all probably fourth-century and from the Nene Valley kilns.

Animal bone: fibula of an immature pig.

Contents of Feature XVII

Feature XVII is noted by Mrs Carey as black earth with charcoal some 4 yards SE of pit 6, probably spread from Pit J.

Anglo-Saxon pottery

1. Small wide-mouthed pot with slightly everted and irregular rounded rim. Hard black sandy ware, ht. 8 cm (fig 15c).
2. One upright rim and one sherd of same ware (fig 15p, q).

Contents of Pit D.⁷⁹

1. *Bone pin* or awl, length 8.5 cm, triangular and perforated (missing, fig 14h).
2. *Bone head* or toggle (missing and no drawing available).

Anglo-Saxon pottery

1. Sherd of Ipswich type ware, perforated lug and tooled lines, black and buff with pro-

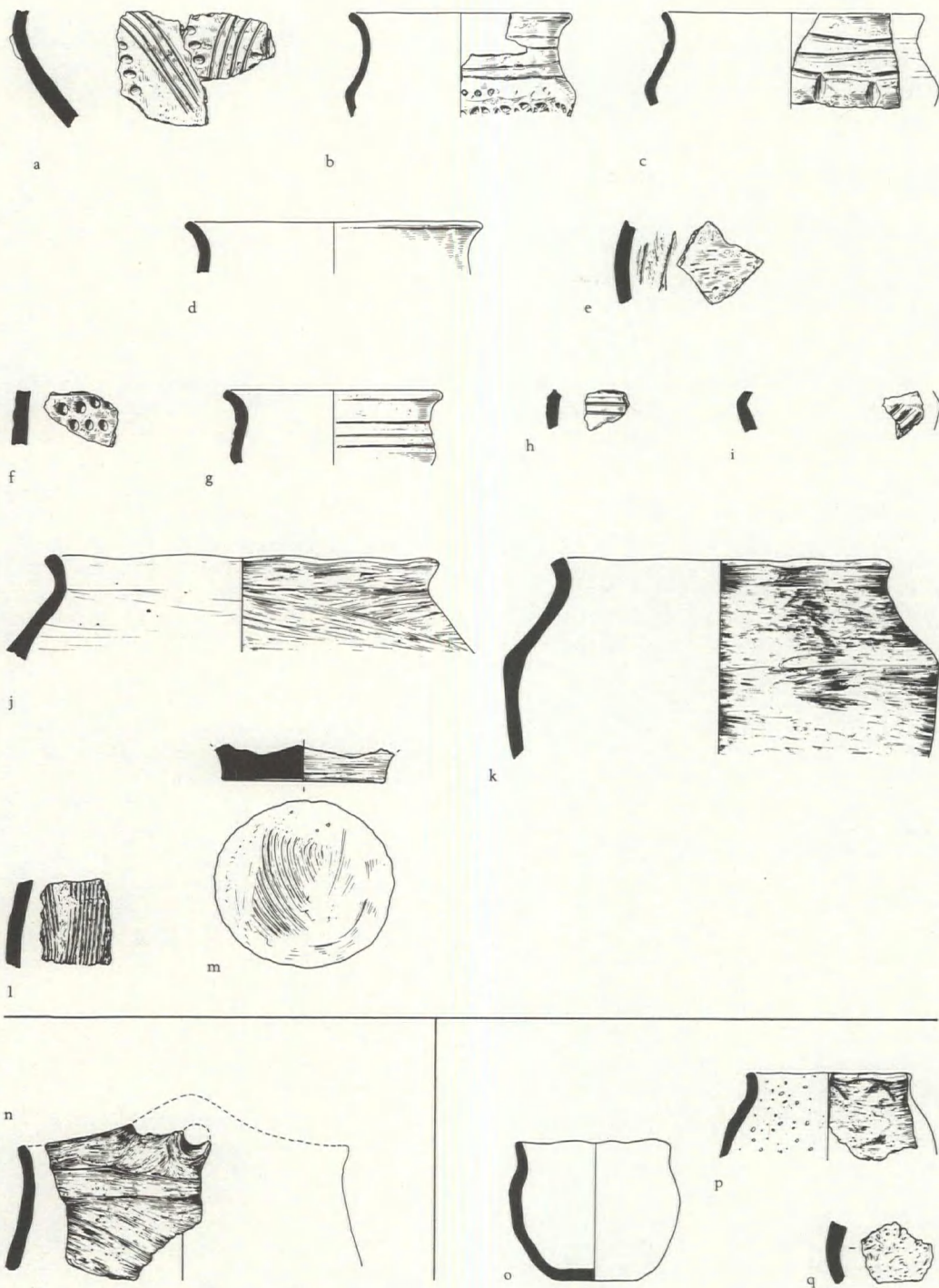


Fig 15 Anglo-Saxon huts, pottery: a-m Hut J,
n Hut D,
o-q Feature XVII = ?Hut J.

Scale 1/4

jecting grits (fig 15n).

2. Sherd of black, smooth ware, buff and burnished on outside, one horizontal groove.

Roman Pottery

1. Lower part of colour-coated bulbous beaker, form intermediate between Gillam 55 and 57, rather nearer 57.⁸⁰ Fourth century.
2. Fragment from a jar in colour-coated ware; late third or probably fourth century.
- 3,4 Two slightly micaceous red colour-coated sherds from the Oxfordshire kilns, late third or fourth century. One of the sherds has white scroll decoration.⁸¹
5. Sherd possibly from the Oxfordshire kilns.

Animal bone: The 'bones of pig, sheep and cattle' are lost.

DISCUSSION OF FINDS FROM THE ANGLO-SAXON SETTLEMENT

These two areas, Pit J plus feature 'XVII, and Pit D, described respectively as 'a spread of black earth covering an area 10 x 8 feet' plus 'a spread of rubbish', and 'a spread of black material' most likely represent two Anglo-Saxon 'dug-out' huts. They are both in Area I, and not only were their positions described, but they were also marked on the map (fig 2) by Dr Dunning. It will be seen that they are over 500 feet apart, so that if the settlement was continuous it must have been a large one. The cemetery is marked a little to the south and between the two.

Pit J contained some Roman sherds, as is normal in an Anglo-Saxon hut, but Roman pottery was noticed from nowhere else on the site with the exception of Pit D, which is probably also a Saxon hut. This may mean that the Germanic people arrived early enough to use contemporary products of the latest Roman kilns. Earlier sherds, however, suggest that it means no more than the collection of any usable pot fragments turning up in the neighbourhood.

The Anglo-Saxon pottery, however, does indicate an early beginning to the occupation. The most distinctive pot is fig 15a, which is part of an urn with vertical bosses framed by standing arcs, and with diagonal lines and oval dimple stamps. The unstratified sherd, fig 15f, with the same stamps may be part of the same pot. This evidently belongs to the class of pot with standing arc designs illustrated by Myres in his fig 21, of which the pot from Sancton Yorks.⁸² is the nearest example, but without the stamps. The sherds

available are not very large, so that there may have been additional details of decoration of which we have no trace, and the pot could have been a fully developed *Buckelurne*.⁸³ The characteristics of the Harrold sherd occur on several urns at Quelkhorn:⁸⁴ standing arcs alternate with diagonal lines, impressed dots combine with standing arcs, impressed dots combine with diagonal lines, standing arcs combine with vertical bosses and impressed dots combine with more complicated designs on the *Buckelurnen*. In Holland a sherd with impressed dots and sets of diagonal lines occurs at Wijster.⁸⁵ The date of the Harrold sherd cannot be estimated more precisely than within the fifth century.

Four of the sherds from 'Pit J', (fig 15b, c, g and i) and possibly also a fifth (fig 15d) are of the small carinated bowl type which occurs either with a pedestal or a rounded base, and which is found in Germany and Holland in the fourth and fifth centuries (*Schalenurnen*)⁸⁶. They are dated to this period as they occur in associations such as grave-groups, and on settlement sites which came to an end in the fifth century, e.g. at Feddersen Wierde and at Wijster.⁸⁷ As only rim sherds remain at Harrold, it is not possible to be certain whether the bases were rounded or in pedestal form. The most simple kind of decoration is the three horizontal grooves, fig 15g, and this type has recently been allocated by Dr Myres to his phase of overlap and controlled settlement in Britain, 360–410 A.D., on the strength of similar pots found in northern Germany in contexts of the early fifth century. Van Es, however, stresses the existence of the general type of *Schalenurnen*, his Type VIIIA, over a wide territory and a long period. Myres, too, notes a similar bowl with horizontal grooves from Liebenau found in a sixth-century context, and he notes also that horizontal linear decoration continues on other types of pot into the seventh century.⁸⁸ It does not seem possible on present evidence, therefore, to regard the bowls with horizontal linear decoration as limited to the period before 410 A.D. in Britain. The Harrold bowl has a slightly more plastic effect to the grooving than urns like the Peterborough one or those from Ezinge,⁸⁹ and so perhaps should be grouped with a pot more like that from Zweeloo found with an equal-armed brooch dated to the later part of the fifth century.⁹⁰

The Harrold bowl with horizontal grooved decora-

tion and a row of cross-in-circle stamps below the carination with a short row of rough ring stamps above, fig 15b, also belongs to the small bowl group, and a row of loose cross-in-circle stamps like this occurs on a pedestal version of the small bowl from Rhee, Holland.⁹¹ The shape of fairly long, incurved neck and the row of stamps recalls the small bowl from Howletts, Kent.⁹² Decoration on the round-based bowls is usually above the carination, and the fact that it is below on the Harrold sherd may mean that this was part of a pedestal bowl.

The sherd fig 15i has diagonal grooves near the carination, and so is closely related to many other small bowls with this type of decoration, which also occurs on the Continent, and which Myres places in his phase 2. Their date, however, cannot be precisely limited. Similar pots at Butzow in Brandenburg are thought on typological grounds to belong to the middle of the fifth century, but it is noted there that similar pots are known from cemeteries of the fifth and sixth centuries.⁹³ Small bowls with diagonal grooves on the carination occur in East Holstein in the late Roman and early Migration periods.⁹⁴ The warrior's grave at Helle, Oldenburg, i.e. grave 7, contained an axe and a bronze bowl with triangular lugs, and as these objects occur in both the fourth and the fifth centuries, the grave, and consequently, the pot, can be dated no closer than that.⁹⁵ In this category in England there is a fairly tall bowl from Kempston,⁹⁶ and some sherds from the settlement site at Mucking, Essex, have been published.⁹⁷ These hut groups at Mucking, when studied in detail, may contribute to more precise dating, but on present evidence sherds of this type might represent the period covered by any of Myres' phases, 1, 2 or 3.

One more variety of the small bowl is the sherd, fig 15c, with three horizontal lines round the neck and oval vertical cuts or grooves on the carination. This has definite affinities in one direction to the type of bowl with faceted carination dealt with by Myres in his phase 2.⁹⁸ The facets are usually placed horizontally on the carination, but they are sometimes vertical, e.g. on a bowl of rounded form from Rügge, Schleswig,⁹⁹ found in connection with a brooch type of the early fourth century. On the other hand, it may have some connection with bowls with short vertical grooves.¹⁰⁰ Dr Myres regards these marks on the Harrold sherd as grooves, and not facets, and has denoted this

sherd with a ring spot on his map 7 as he considers it similar to some pots in Kent and Jutland.¹⁰¹ This map is without an accompanying catalogue and the only pots represented on it which can be identified are the six shown in Myres' fig 40. Of course, the pots in the top row are unlike the Harrold sherd as they are taller and narrower in mouth than bowls. The three in the lower row are small bowls in shape, but as far as decoration is concerned, they seem to have no further affinity to the Harrold sherd. Presumably Dr Myres is grouping the Harrold sherd with the type Mucking, hut 13,¹⁰² which has long, vertical grooves. However, if the Harrold sherd merits inclusion on this map, then all other examples of this exact type should also be included, such as that from Rügge quoted above, and a small bowl with vertical facets from Stone Pound Sand Pit, Hurstpierpoint, Sussex.¹⁰³ There are no doubt similarities in the pottery between Kent and Jutland as there are with other parts of the Continent, but until the relevant evidence is published it is not possible to make any appraisal at all of the validity of the conclusions proposed on Myres' map 7 by the groups of black dots and the groups of ring-spots and, most important, by the blank spaces. Exact location of the continental origin of any one particular type of English small bowl is therefore still in doubt, but the different varieties of the group appear to be similar in date, and the main concentration seems to fall in the fifth century.

Feature XVII presumably represents the top layer of the deposit of Pit J spread by the machine. The undecorated pot and sherds, fig 15 o-q, are crude domestic shapes,¹⁰⁴ but the hard-baked sandy ware differs from the other pagan period ware and may be later.

The bone spindle whorl type cannot be closely dated. Two bone spindle whorls from the terps in Holland have similar decoration to the one in J (fig 14f), but appear to be flatter in shape.¹⁰⁵ Most spindle whorls of pagan Saxon England are rather conical, but amongst these types at Chamberlains Barn, Leighton Buzzard, Beds., for example, there is one shale spindle whorl which is biconical, although flatter than the Harrold one.¹⁰⁶ Cemetery II at Chamberlain's Barn where this shale example was found belongs mainly to the late seventh century, but a bone spindle whorl shaped and decorated like the Harrold one was found at Westerwanna¹⁰⁷ with blue beads, other fragments

and a pot decorated in the zigzag line and dimple rosette fashion which occurs as early as the Cuxhaven-Galgenberg pot type dated to the last half of the fourth century.¹⁰⁸

Hut D also contained Roman sherds, and a 'bone bead or toggle' now missing, which may have been a spindle whorl similar to that in J. The bone pin or awl (fig 14h) is not closely datable, and it has been pointed out that the type was in use from the fifth to the thirteenth century in Scandinavia.¹⁰⁹ It occurs in England at Sutton Courtenay, West Row, Suffolk and elsewhere.¹¹⁰

The sherd of Ipswich-type ware gives a date no earlier than the last half of the seventh century. Now that the number of excavated Anglo-Saxon settlement sites is mounting, it is becoming evident that the opinion that cemeteries of the period were commonly sited a considerable distance away from the houses is not tenable.¹¹¹ The graves here are within about 200 feet of Hut D and huts and graves were also near each other at Mucking and at Bishopstone, Sussex.¹¹² At Harrold and at Bishopstone both huts and graves are sited in the vicinity of Bronze Age barrows.

The dating of the material from the huts partly accords with the dating of some of the grave goods to the second half of the seventh or the early eighth century, but the contents of Hut J establish an initial date as early as the fifth century. The early penetration of the area on the perimeter of the Wash is already well attested,¹¹³ and the site of Harrold is in the valley of the Ouse, not far upstream from Kempston where a considerable number of fifth-century finds are recorded. The pottery at Harrold suggests that the site was also inhabited in the sixth century, graves belong to the late seventh or early eighth century, and the ninth century, and there are thirteenth century burials further to the east. If occupation was continuous from Roman to medieval times the sparse remains at Harrold must represent a settlement of long duration and of considerable extent.

The small amount of evidence left in the way of objects and features is just enough to establish the unpalatable certainty that at Harrold a site of archaeological richness and complexity has suffered almost complete annihilation.

Medieval burials

In the course of the 1952 excavations a trench for an electricity cable was dug in field No 271

on the east side of the Sharnbrook road to the gravel pit. A burial was found consisting of a number of bones in a confused pile in a hollow about one to two feet below the surface. The bones belonged to two males of medium height and robust build, of adult or early middle age. A sherd of thirteenth-century pottery was associated with this burial.

The second burial was in a hollow 2 ft 5 in deep about 40 ft away from the first. The burial was flexed with head to the north-east, a male of middle height and robust build, of adult or early middle age, with associated thirteenth-century sherds.

Unassociated medieval finds

Pottery from the northern part of the gravel pit is rough and shelly, and is dated to the twelfth and thirteenth centuries. Both jugs and cooking pots are represented.

A jetton was found at a depth of 1 ft 4 in in one of the trenches but there is no other information available for its context. It is a late Nuremburg jetton of Hans Krauwinkel, fl. c.1585-1610. Diameter 21 mm normal types (3 crowns and 3 lys/Reichsapfel in trilobe).

HANS KRAUWINKEL IN NV
HEUTE ROT MORGEN TOT

It is the latest sort of Nuremburg jetton commonly found in England.

Note on the Harrold Hone By S E Ellis

The honestone (fig 12c) is a sandy greywack (greywack-grit) consisting of angular fragments of hard minerals (mainly quartz), fine grained rocks and flakes of mica in a matrix of secondary quartz, sericite and chlorite which in part represents recrystallised mud. The quartz, (forming about $\frac{3}{8}$ of the rock) is mainly of granitic and gneissic origin and is accompanied by a variety of feldspars (totally $\frac{1}{5}$ of the rock), mainly oligoclase but also including microcline, micropertite, altered orthoclase and chequer-albite. Volcanic rock fragments (chloritised andesites, keratophyres and rhyolites) and sedimentary rocks (quartzites, cherts, slates and phyllites) are abundant. Accessory minerals include zircon, tourmaline and leucocene.

Such rocks are characteristic of folded mountain regions, all the British and North West Europe examples of which are of Palaeozoic or pre-Cambrian age: e.g. South Scotland and N.W. England, N. Wales, the Llanymyrd, Devon and

Cornwall, Brittany, the Rhineland-Ardenne area. They are also found in drift derived from these regions, which is widespread in the Midlands and eastern counties. In my experience the very varied assemblage of fragments in this honestone is more characteristic of Southern Scottish greywacks than of those from the other districts mentioned. Of possible continental sources the Rhineland (either direct or by way of drift) is the most likely.

This hone belongs to type IIB (2) in my paper (*Bull. Brit. Mus. (Nat. Hist.)*, vol. 2, no. 3 (1968), in which it is grouped with the closely similar honestone from Hough-on-the-Hill, Lincs.

THE HUMAN REMAINS FROM HARROLD, BEDS.

by C B Denston

Duckworth Laboratory of Physical Anthropology, Department of Archaeology and Anthropology, University of Cambridge.

The skeletal remains were deposited at the Duckworth Laboratory about 1959-60, some of its bones being in three large brown paper bags, the bones mixed and none numbered, the paper bags though were marked Saxon so it has been presumed all the bones in these bags are Saxon. With the bags came a box which contained more bones, these were also in paper bags, but were in three layers, the bags being labelled and a note with them explaining the burial number of each layer. Written on one of the bags was Iron Age, but these remains are of either ?Bronze Age or Iron Age date.

All the remains have been restored as much as possible and those presumed as Saxon were a mixture of skull and postcranial and consist of the following bones: two fragmentary crania; five fragmentary mandibles; remains of seven femora; remains of four tibia; remains of three humeri; remains of three ulnae; remains of two radii; remains of three clavicles; remains of two innominate bones; remains of two scapulae; a few vertebrae; bones of the hands and feet; fragmentary ribs.

After a thorough examination, taking into account the state of preservation, the length and robustness of the bones, and possible sex, the following conclusions were reached: Minimum number of individuals represented by skulls; five. Maximum which could be represented by remains of skulls; seven. It is feasible that the remains of the two

crania are associated with two of the mandibles, though none could be matched with certainty, so the remains of the skulls could represent five to seven individuals.

Bearing in mind these remains are not complete, and if representing seven individuals, the sexes were tentatively assessed as: two adult females; four adult males; one immature, sex indeterminable. If representing five individuals the sexes would be; two adult females; two adult males; one immature.

The immature individual would possibly have been from 2-4 years of age at time of death, and the tentative ages of one female, and one male, would seem to be in the ranges of 35-45 years, and 25-35 year respectively.

The minimum number of individuals represented by the postcranial remains would seem to be seven; the maximum could be eight or nine and if isolated bones count each as a separate individual the total could be more, but this seems very unlikely and a total of seven seems very realistic. Of the seven individuals six are adult and one immature. The six adults are represented by long bones, and the few other postcranial remains apart from long bones could belong to any of these individuals. The immature individual is represented by a few vertebrae, and these vertebrae are of too large proportions to be associated with the immature mandible.

The sex of the adult individuals would seem to be three females, and three males. The sex of the immature individual was indeterminable.

The tentative stature of two of the females, and two of the males were able to be assessed and were as follows: Females; 5' 2½"; 5' 5½". Males: 5' 10"; 6' 0".

Pathology

Four cervical vertebrae, all belonging to the same individual, the sex possibly being male, display medium degrees of osteo-arthritis at the borders of the body portions, and at the articular facets.

REMAINS OF ?BRONZE AGE AND IRON AGE DATE

J H E (a) (i.e. crouched burial, Pit A)

IRON AGE

Sex: ?Male

Age at death: 13-15 years

Skull

The cranium is very fragmentary with many portions missing post-mortem. The mandible is

nearly complete and displays some teeth *in situ*. These teeth are four molars, three premolars, and one canine; two maxilla fragments also have four molars, and one premolar *in situ*; with one molar and two maxillary incisors loose. None of these teeth show any signs of cavities, but enamel hypoplasia was detected on some of the teeth. Teeth may often be seen to have lines running horizontally across the enamel, sometimes slight and other times more pronounced. This is a condition due to periodically arrested growth during crown formation, perhaps because of some short-term disease, or to a dietary deficiency. The growth of teeth is, however, influenced by a great number of hormonal and dietary factors, disturbances in any of which will produce hypoplasia.

Postcranial Remains

The bones of the postcranial skeleton are also fragmentary, this was not due to erosion but to post-mortem breakage. Most of the bones of the postcranial skeleton would seem to be represented. Burial III ?BRONZE AGE (i.e. burial in ring-ditch 13).

Sex: ?Female
Age at death: 13-15 years

Skull

The cranium consists of fragments which in no way could be restored. The mandible is more complete and has three molars, two premolars, and one canine and one incisor *in situ*. Loose teeth of the maxilla are as follows; three molars, three premolars, one canine and one incisor. No caries were obvious, but enamel hypoplasia was noticeable of a slight degree.

Postcranial Remains

These bones are also fragmentary due to post-mortem breakage, and would seem to represent most of the postcranial skeleton.

Burial V ?BRONZE AGE (i.e. burial in ring-ditch 16, p. 00)

Sex: ?Female
Age at death: 20-25 years
Stature: Approximately 5'4"

The remains are few in number; a complete humerus is preserved, the rest of the bones being of a fragmentary nature. The stature must be regarded as a very tentative estimate as it was computed from the maximum length measurement of a single humerus. The age at death must also be regarded as a tentative assessment, as it was ascertained from the single fact that the epiphyses

of the glenoid cavities of the scapulae display that synostosis was not complete; other extremities of long bones, of which there are six, display that union between epiphysis and diaphysis was complete with no vestige where joined.

Seven loose teeth were with Individual 2, Burial V, which did not belong, these could belong to this individual. From the degree of the attrition of two molar teeth though the age at death would seem to have been in the region of 25-30 years.

SUMMARY

After a detailed examination of every fragment which came to this department from the Harrod excavation site, it became clear that not less than seven individuals presumed to be of Saxon origin were present. This is a minimum estimate, for in such cases where remains have become mixed from a burial area, there are nearly always some fragment switch, even though they can be tentatively placed together with other components of a particular skeleton could, nevertheless, represent one or more than one additional individuals. Those remains either of ?Bronze Age or Iron Age origin had been labelled so presented no problem, except a mandible plus a maxilla most probably did not belong with the accompanying postcranial remains. The preservation of the bones did not vary much, although those of prehistoric date display more post-mortem breakage, in no case were the bones badly eroded. In all cases the skulls were incomplete, and the majority represented by mandibles. None of the remains of the Saxon skulls could with any degree of certainty be assigned to any postcranial bones, but one thing is certain, the immature cranial fragments do not belong with the immature vertebrae, so making two immature Saxon individuals. It is feasible that some of the remains of the Saxon skulls do belong with some postcranial bones, but if they did not, and they in turn represented the maximum number, it could make the total number of individuals as follows: by postcranial remains seven adults; by remains of skulls seven adults; two immature. Total sixteen Saxon individuals. The sex of the Saxon individuals as represented by both skull and postcranial material, would seem to be of equal numbers, this giving weight to the possibility that some belong to the same individuals. Two individuals were represented by the Bronze Age remains, and one by the Iron Age.

Acknowledgements

A great deal of information about this site would have been lost had it not been for Dr G C Dunning who made useful notes when visiting the site and plotted on a map a number of the features found by Mr Edwards. It is pleasant to record help from Mr F W Kuhlicke, curator of Bedford Museum, and Mr W J Hill who kindly answered questions of a local nature. Information was kindly supplied by Mrs June Morey on the Neolithic axe, on pottery by Dr I H Longworth (Bronze Age), Mr B R Hartley (Roman), Dr J N L Myres (Anglo-Saxon), Mr J G Hurst (mediaeval), and on the jetton by Mr S E Rigold. A note on the Iron Age bronze ornament was written by the late Sir Cyril Fox in 1953. Dr G C Dunning was kind enough to take samples for sectioning of the Iron Age querns and contributed a note on, and a reconstruction drawing of, the oven fragments. We would like to thank Dr I W Cornwall for his comments on the bones of the Celtic oxen from ring-ditch 13 and the antler hoe and Mr S E Ellis who identified the rocks used for the querns and for the hone. Dr F R Hodson should be especially thanked for much help on many points both of a specific and of a general nature during the preparation of the report on the prehistoric finds. Mrs Fry-Stone drew the small finds, Miss G Jones the decorated Bronze Age urn, Mrs Carey most of the Iron Age pottery, the rest of which, together with the plans, were the work of Mrs C Boddington. Mrs Carey also drew the sections through the rotary querns.

NOTES

- 1 This term is defined in RCHM *A Matter of Time* (1960) 17. It is not possible at Harrold to subdivide them as has been done elsewhere by HJ Case (n 8).
- 2 Dr St Joseph took oblique air photographs of the site in June 1962 showing some of them during gravel operations (HF 34, 36, 37, 38). These photographs also illustrate well the enormous difficulties of recording archaeological features when gravel is being removed on such a scale.
- 3 Iron Age pottery has been found to the east of the Odell Road (fig 2) but this area has not been excavated.
- 4 The Ordnance Survey map of *Southern Britain in the Iron Age* (1962) and the relevant articles in the *Beds. Arch. J.* 2 (1964): 3 (1966); IV (1969) are the best guide to distribution.
- 5 C L Matthews, *Ancient Dunstable: a Prehistory of the District* (n.d. c 1963).
- 6 Geological Survey Drift Sheet (1 in scale) No

- 203 (Bedford).
- 7 e.g. *A Matter of Time* and J K S St Joseph *The Uses of Air Photography* (1967). Both are of general application but the first gives some emphasis to the Ouse.
- 8 e.g. (unpublished) (i) the Welland (the Welland Valley Research Committee) (ii) the Warwickshire Avon (but cf *Arch J* 121 (1964), 1-22) (iii) the Thames (e.g. excavations under Mrs M U Jones at Mucking cf *Ant J* XLVIII (1968), 210-30); (published) Hanborough (Oxon), H J Case and others, *Oxon* 29-30 (1964-5), 1-98. The chronological range here is strikingly similar to Harrold—six Bronze Age ring-ditches, Bronze Age burial pits, early Iron Age pits and settlements and a small Anglo-Saxon cemetery.
- 9 cf the list of settlements in *A Matter of Time*, 53-5.
- 10 These numbers refer to the pottery list. Sherds not so listed are largely wall sherds and in any case undiagnostic.
- 11 Almost all the animal bones are now lost and identifications were made at the time of excavation by Mrs Carey.
- 12 In *A Matter of Time*, 18 it was noted that finds of the Bronze Age are rarer in the Ouse valley than in others but that what there is comes chiefly from the Bedford region.
- 13 *Oxon* 28 (1963), 14 (Ann Hamlin) and 27 (H J Case).
- 14 S S Frere 'Excavations at Dorchester-on-Thames 1962', *Arch J* 119 (1962), 129.
- 15 Bunter pebbles have been interpreted in the report as hearth-stones but some at least were probably pot-boilers.
- 16 cf another example at City Farm, Hanborough, Oxon (PIT 13), *Oxon* 29-30 (1964-5), 47.
- 17 cf Hawk's Hill Leatherhead, *Surrey Arch Coll.* 62 (1965), 12.
- 18 The skeleton is at present at the Institute of Archaeology, Univ of London (Dept of Human Environment) and may be discussed in publication along with similar specimens in due course.
- 19 The likelihood of this has been demonstrated by H C Bowen as a by-product of his work with replica pits constructed at Broad Chalke (Wilts) in 1965. He would, in fact, emphasise the presence of rodent remains in Iron Age pits as firm evidence for their use for storing grain. Mice especially are inevitably attracted by this supply of food. *Bull. Inst. of Arch* 7 (1968), 1-14 and in discussion with H C B.
- 20 n 17, 13: comments by B W Cunliffe.
- 21 E C Curwen, 'More about Querns', *Antiquity* 15 (1941), 15-32, and Judith T Philips in K M Kenyon, 'Excavations at Breedon-on-the-Hill, 1946' *T Leics Arch S*, 26 (1950), 75-82.
- 22 E C Curwen 'Querns', *Antiquity* 11 (1937), 133-51.
- 23 Similar hoes or rakes are discussed *Ant J* 29 (1949), 86-7 and pl XI. A Bulleid & H St G Gray, *The Glastonbury Lake-Village* (2 vols), Objects of Antler H 79; 455 and pl LXVI probably another example.
- 24 Discussed Anna Roes, *Bone and Antler Objects*

- from the Frisian Terp-Mounds, Haarlem (1963), 34-6 and pl XXXVII (fig 11h) and *Ibid.* 42-3 and pl L, 5 (fig 11g).
- 25 A brief note was published by F W Kuhlicke, *Bedfordshire Archaeologist* I (1956), 133.
- 26 The Stanwick roundels, C Fox, *Pattern and Purpose* (1958), 130 and Morna MacGregor *P P S* 28 (1962), 38, fig 4; the Berkshire roundel, E T Leeds, *Celtic Ornament* (1933), 54 and fig 21c.
- 27 but cf E S Higgs and J Peter White 'Autumn Killing', *Antiquity* 37 (1963), 282-9.
- 28 D N Hall and N Nickerson, *Arch J* 124 (1967), 65-99, esp 78-80 illustrate similar pottery from Irchester (nb eg, flat-topped rims).
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- 30 e.g. Draughton (Northants), W F Grimes (ed), *Aspects of Archaeology in Britain and Beyond*, 160-1.
- Barley (Herts), P Ozanne in M D Cra'ster *P Camb. Ant. Soc.* 54 (1960), 37 and sites there cited.
- 30a Other cremations, which survive but are without context, have been omitted.
- 31 R E M Wheeler, *Maiden Castle, Dorset* (1943), 93-6 and fig 16 and pl CV.
- 31a *P P S* 34 (1968), 201, fig 6 and pl IV, lower.
- 32 *P P S* 15 (1949), 159-61 and figs 2-3.
- 33 *Wilts Arch Mag.* 54 (1951), 161-2 and pl VI.
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- 35 Illustrated and discussed in *A Find of the E I A from Llyn Cerrig Anglesey* (1946), 48-9.
- 36 Brit Mus, *Guide to the Antiquities of Roman Britain* (1951), 28 and fig 14, No. 5.
- 37 *B B A A* 49, Oct., 1952, 1. A Meaney, *A Gazetteer of Early Anglo-Saxon Burial Sites*, (1964) p 47. J Morris, 'Gazetteer of pagan Anglo-Saxon discoveries in Bedfordshire' *Beds Arch J.* 1 (1962) 66.
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- 40 *British Museum Guide to Anglo-Saxon Antiquities* (1923) pl IV, 4.
- 41 E T Leeds, *Early Anglo-Saxon Art and Archaeology* (1936) pl XXXI; V I Evison, 'Sugar-loaf shield bosses', *Antiqs. J.* 43 (1963) 38-96, figs 16, a-d M Hyslop, 'Two Anglo-Saxon cemeteries at Chamberlains Barn, Leighton Buzzard, Beds', *Arch. Journ.* 120 (1964) 173, 198-9.
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- 43 V I Evison, 1963, figs 16e, 17e, 18e, 30b; cf T Lethbridge, *Recent Excavations on Anglo-Saxon cemeteries in Cambridgeshire and Suffolk*, (1931) fig 13D; 14D, E; 22.2; 30.1, 2.
- 44 V I Evison, 1963, fig 20.d.
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- 46 E T Leeds, 'A Saxon village near Sutton Courtenay Berks.' *Arch.* 73, (1923) 167, pl XXVII, fig 2.A.
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- 71 *Ibid.* grave 29, Walsum, Taf. 45.6; cf J Werner, *Das Alamannische Gräberfeld von Bülach*, (1953) Taf. 35.5.
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- 78 Mr Edwards 'preliminary report:' Pit J—spread of black earth covering an area 10 x 8 feet N side of the pit—the finds were sherds of Samian and 1 sherd of figured Samian, a large bone bead, well-turned, curvilinear grooves (a bone needle), one base of thick Roman pottery, a large piece of Iron Age with carinated shoulder. Bird bones'
- 79 *Ibid.* 'Pit D. A spread of rubbish not in pit, midway between the Odell Road the N-W corner, 54 feet from former hedge line. Bones of pig, sheep and cattle, one bone needle, a sherd of red pottery, a bone bead or toggle, nicely turned and sherds of later ware.'
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- 81 D B Harden, 'Two Romano-British Potter's Fields near Oxford', *Oxon.*, 1 (1936) 81 ff. fig 19,14.
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- 88 J N L Myres, 1969, 82, note 4, 36.
- 89 *Ibid.* fig 14; W A van Es, 1967, fig 160, 7, 11, 12.
- 90 *Ibid* fig 160, 1a, b.
- 91 *Ibid.* fig 160, 1a, b.
- 92 J N L Myres, 1969 fig 41,452
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- 95 J Werner, 'Kriegergräber aus der ersten Hälfte des 5 Jahrhunderts zwischen Scheldt und Weser', *Bonner Jahrbücher* 158, (1958) 388, Abb 11, 5, 6.
- 96 J N L Myres, 1969, fig 35,386.
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- 110 *Archeologia* 73 (1923) 182-3, pl XXVIII, 2, cf also pl XXXIX, 1: *P Camb Ant Soc* 33 (1933), 133 ff fig 2; 1, 2, with a chalk spindle whorl similar in shape to the whorl from Hut J; S E West, 'Excavations at Cox Lane', *P Suffolk I A* 29 (1963) 276, fig 55, 4-6.
- 111 O S *Map of Britain in the Dark Ages*, (1966) 16.
- 112 I am grateful to Mr David Thomson for this information.
- 113 R G Collingwood and J N L Myres, *Roman Britain and the English Settlements*, 386-7.
- 114 Other prehistoric bones survive but are without known association and have been omitted.

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Circular Roman Building at Bozeat, Northamptonshire, 1964

D N HALL and N NICKERSON

Summary

The excavation of a circular stone building, diameter 50 ft (15.25 m), with four central piers, dating to the third century A.D.

INTRODUCTION

This site is at Bozeat, Northamptonshire (SP 896600), near the north Bedfordshire border. Found on 23 July 1964 by G Coleman whilst deep ploughing, and recognised by E Corby as an ancient site, it was excavated 1-8 August 1964. Excavation was not total; parts of the ground plan were established by careful probing.

The remains found were footings of a circular stone building with four central piers, at present unique, dating to the third century A.D., probably to be associated with neighbouring Roman settlement (at Bozeat; site B.1), which like the present site lies on glacial sand.

Figure 1 shows the position of the site in the modern and medieval fields. The hedges were set at the inclosure of Bozeat in 1798, after which the field was no longer ploughed. In the nineteenth century there was a hovel half way along the north hedge. The field remained as grass ridge and furrow until about 1948, when it was levelled by bulldozing before ploughing. Some ditches in the marshy part of the field were filled, and stone placed in the marshes. The south hedge was pulled up soon after the present excavation.

EXCAVATION

The earliest remains of occupation on the site are the Belgic ditches D1 and D2 (fig 2). They probably formed part of an enclosure which was made about the middle of the first century A.D. according to sherds 1, 2 and 3 (fig 3). There was very little occupation refuse in the lowest ditch silts, and the structure probably fell into disuse soon after construction.

The larger ditch (D1) was 10 ft wide and 5-6 ft below the modern topsoil. The small ditch (D2)

was 6 to 8 ft wide and 4½ ft deep.

The next active phase of occupation is represented by the rich upper fillings of ditch D1, in the Antonine period (coin 1; pots 4 to 19 (fig. 3); and samian of Dragendorf form 45).

Third century A.D. activity was represented by a pit cutting through the later filling of ditch D1 (fig 4) and containing an indented castor ware beaker (fig 3, no. 20).

The final stage of occupation was the circular building (fig 2). All the remains were footings of limestone. They consisted of an outer perfectly circular wall of 50 ft outside diameter, and 2½ to 3 ft thick; footings for four crosswalls 2 ft thick; and circular footings, presumably intended for piers, of about 4 ft diameter. The internal crosswalls and piers were not placed symmetrically in the outer circular wall.

All the footings, except those of pier A, and crosswall I, were laid in the same manner. The stonework consisted of courses of pitched limestone 'flatstones'. The rough shape of the footing trenches, being U-section and of varying depths, necessitated the use of layers and rows of pitched stone. Sometimes one course deep sufficed, being made up to the right width by others alongside. But the trench diggers seem to have obeyed a rule to dig down until the subsoil (yellow sand) was reached. So when, for example, the outer wall crosses the infilled ditch D2 almost at right angles to it, the trench follows the ditch profile, also getting wider at the top due to the softer going and greater depth. The stonework now consists of several courses of pitching one above the other, separated by a few horizontal stones, with other courses in parallel higher up (pl. 5a). Always the pitch of the stone is the same way, no matter how many courses deep. Where a footing runs along a ditch side (as crosswall p, in trench I; fig 2), then part of the ditch side is dug away to level the bottom of the trench for the footings. The holes dug for the pier footings were roughly

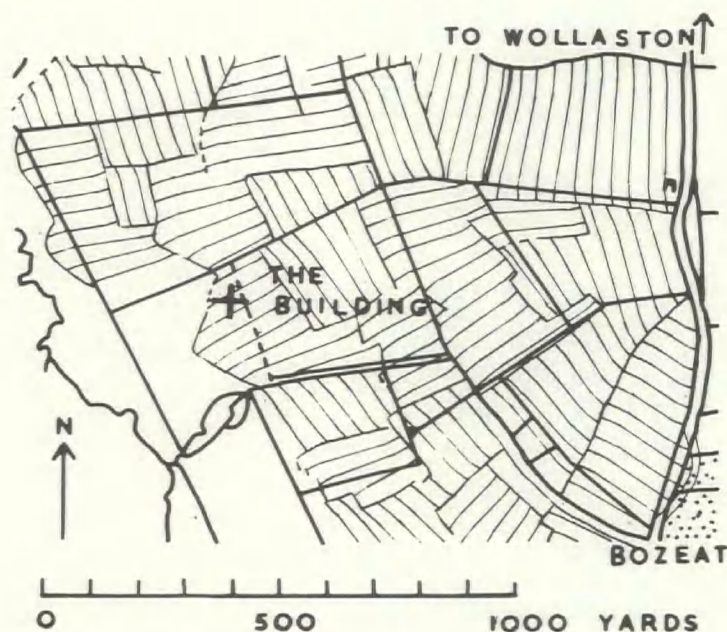


Fig 1. Position of the site in the modern and medieval fields.

bowl-shaped. These were stone-filled by lining them with flatstones, and filling the centre part concentrically, or as best possible, with more flatstones. This process being repeated up a course until the bowl was filled. In the case of pier *B*, which was set in the ditch D2, many such courses were needed (pl. 5b).

Pier *A*, and crosswall *I*, are anomalous in their construction. With pier *A*, after the liner stones had been placed, the centre was filled up with small bits of stone and earth slurry. The trench for crosswall *I* was filled similarly, one course of pitched stone being laid on top of this to finish off (pl. 5c). From this it appears that the supply of flatstone had run out, due likely to the original estimate of the amount needed being in error—extra stone having been used where the footings cross the ditch. (On computation 49 cu ft of extra stone was used in D2, whilst 35 cu ft of it would have replaced the rubbishy filling of the pier and crosswall). So although short of good stone it was thought best to finish off the parts under construction. This suggests that pier *A* and crosswall *I* were the last to be done; (and possibly that no more flatstones were needed in the construction, i.e. no more footings, and also the building above ground was not to be of this type

of stone).

In all the wall footings the direction of the pitch of the stones shows the direction in which the worker went in laying them; i.e. stones laid \\\\\\\ show wall being laid from left to right, and stones laid ///// show wall being laid from right to left. On fig. 2, arrows show in which direction the footings were laid. In laying the outer wall it can be seen (pl. 6a) that work started from a single point—a sort of keystone—and proceeded away from it in both directions. The finish point would result in an easily filled wedge shape, about opposite the start point on the circle. But where the finish point had been expected, the footings were badly damaged by mediaeval ploughing. This method of footing the outer wall implies the use of two teams of masons. Most of the footings were not all done at the same time. They were each (i.e. each pier, crosswall, and the outer wall) dug out separately and then stone filled, before another was dug. This is shown in the remains by the gaps of subsoil left at intersections of footings (pl. 5a). E.G. the junction *R* of crosswall *p* with the outer wall; at ancient ground level (i.e. about the top of the footings) these two footings meet right up, but lower they fall away from one another to leave a wedge of subsoil. These

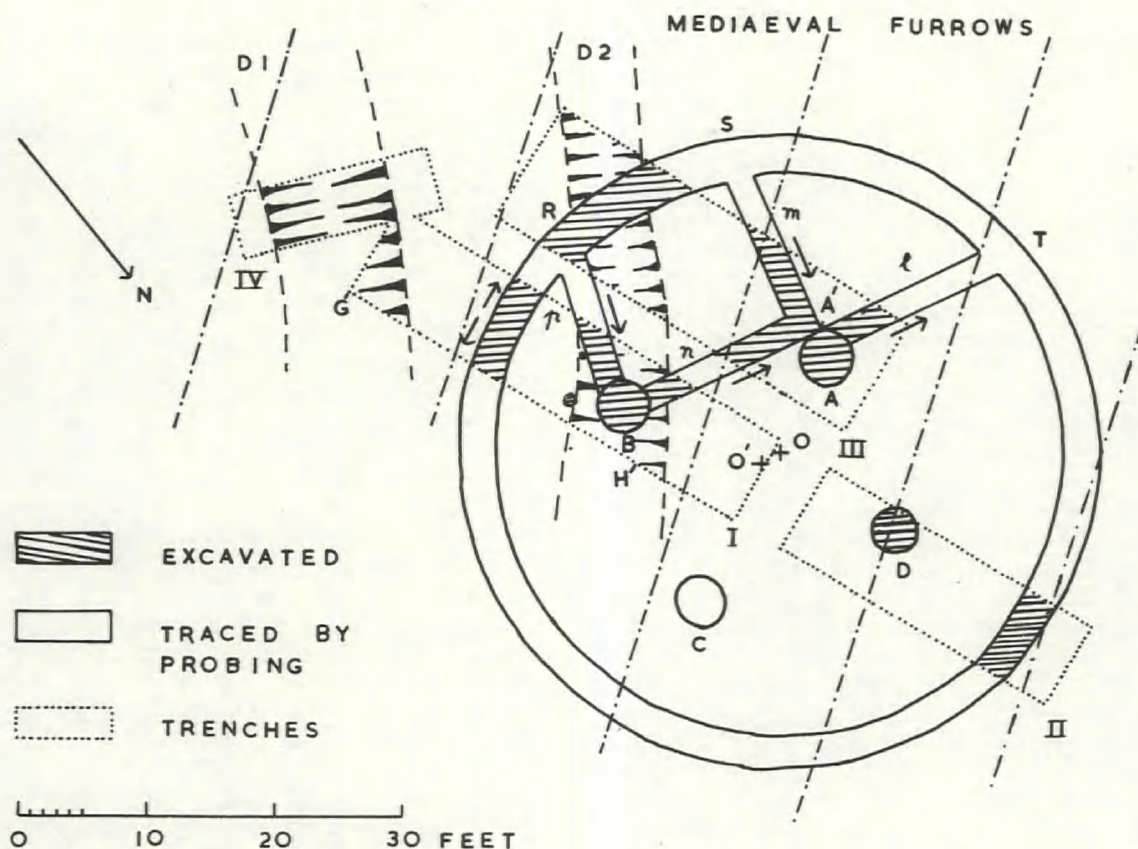


Fig 2. Plan of 3rd. century Romano-British building at Bozeat, Northants.

gaps would not have occurred if the complete ground plan for the building had been excavated at once, and then stone filled. They can be explained if the outer wall had first been completed and then the trench for cross wall *p* dug. Since neither the outer wall trench nor the end of the crosswall trench have vertical sides, some soil is left between them, especially lower down. The gaps were present at all footing intersections, except that between crosswalls *m* and *n*: here the footings meet up over their entire depth (pl. 6b), showing that the trenches for them were open at the same time.

Effects of Medieval Ploughing on the Site

The grooving effect left by medieval ridge and furrow cultivation (after it has been flattened by modern farming) can clearly be seen on all the present sections (e.g. fig 4). The lines of the furrow bottoms are marked on fig 2. Where these cross

the wall footings there is most damage to the remains (see the holes in crosswalls *m* and *n*, pl. 6b). The stone which is ploughed out from the footings in this manner is carried some distance along the line of the old ridge and furrow.

GEOMETRY OF THE BUILDING

The rather asymmetrical layout of the internal structure of the building looks as though it may have been unintentional. The form shown in fig 5 may well have been what was intended. This would be simple to construct by first marking out two concentric circles of 24 ft and 12 ft radius. On the inner circle the pier bases *A B C D* making a square would be marked. The lines of the crosswalls *l m n p* are readily obtained by projecting *CB*, *DA*, and *BA* to the outer circle to give points *R*, *S*, and *T* respectively.

The actual plan of the building can be explained by assuming various errors during the attempted

construction of the above hypothetical form.

The first important difference is that the inner circle, on which the piers lie and the positions of the crosswalls largely depend, has a different centre (O' fig 2) from that of the outer wall (centre O). (The position of pier A being ignored for the moment, as it is subject to further errors). This must mean that after the outer circle had been marked out, it was immediately dug and footed. Next and before any more footings were marked out or begun, the original centre O was lost for some reason. Before work could now proceed the centre had to be recreated and the pier and cross-wall positions then marked out from it. Unfortunately the new centre (O') was incorrect by 1 ft 6 in, and as a result the pier positions and intersection points—although geometrically correct for this new centre—were wrong as regards the original geometry of the building.

After the pier and crosswall positions had been delineated, construction again proceeded. It seems that a common error now was to place the (long) sides of crosswall footings where the mid-axes should have laid. Thus wall m lies its whole length with its west face just about where its mid-axis ought to have been. Wall n finishes with its north face likewise, whilst wall l starts similarly. These errors in walls m and n together which occur around where pier A should have been (at A'), may have led partly to its misplacing, especially since it was not constructed until after walls m and n .

Whether or not a further crosswall from pier B eastwards to the outer wall was ever intended cannot be surmised, as no traces of one were present.

Since crosswall p lies between the outer wall and pier B , it is impossible practically that its footing trench could have been dug before both the outer wall and pier B had had their footings completed. Also it has triangular gaps with both of them, and thus cannot have been done at the same time as them; therefore crosswall p was preceded in order of construction by the outer wall and pier B . Similarly pier B must have also preceded wall n , since at this end n has a gap with pier B . Wall n does not meet up with pier A at a gap, but instead meets up with crosswall m without any gap. Thus both walls m and n were dug together and footed before pier A . Crosswall l has a gap with pier A , and so must have been done after it, being the last piece of footing to be completed.

This sequence is supported by previous evidence; i.e. that from geometrical considerations, the outer wall was completed first; and that pier A and crosswall l were the last to be done, on account of their inferior fillings.

DATING

As described earlier, occupation before the building remains includes the late Belgic period through until the third century. Since the outer wall footings in trench I cut into a pit (see fig 4) they are later, therefore, than the date of pot 20 (fig 3)—third century A.D.—which was found in it. Only one find that could be later than pot 20 was found, this was pot 22, a late third century Castor ware type. Thus activity ceased on the site at about the middle of the third century A.D., and this is likely to be the date of the footings for the building.

Pot 21 (fig 3) was found in the disturbed part of the outer wall to the north in trench II. It is likely that it got there after the footings were laid, and would thus give an indication of date of abandonment. But dates cannot at present be safely given to this type of coarse ware.

Use of the Building

No contemporary occupation layers were found, so the purpose of the remains must necessarily remain speculative. There was no destruction layer of stone in the ploughsoil (fig 4) as is common with stone buildings; this may suggest that the building above ground was of a wooden structure, or that the footings never had a building set on them.

Neither the pier bases nor any of the wall footings examined were socketed for wood posts; also they were unnecessarily bulky for an all-wood building. Apart from this there are abundant supplies of good building stone in the vicinity. Thus it is most likely that a building on these footings would be chiefly of stone construction.

From the size of the footings, such a building would have an outer circular wall of some height and four sturdy circular piers, all capable of roof support. The narrow size of the crosswall footings suggests that these would not be structural walls, but rather partition or dwarf walls.

Parallels for a building of this plan are few. The wooden Iron Age building found at Little Woodbury, Wilts, was interpreted by Bersu as of similar plan (*P.P.S.* 6 (1940) 81 fig 21) but as

Musson has suggested (*Current Arch.* 2 (1970) 271-273 with figs) the four posts may not be contemporary with the outer post hole circles. Iron Age B hut circles of 50 ft diameter without central posts occur locally at Bozeat (SP/900566) and Wollaston (SP/909641). A Romano-British round-house from Winterton, Lincs., (*J.R.S.* 55 (1965) 205) is of similar plan but does not have internal crosswalls. On Baker's plan of Irchester is marked the outer wall of a circular building of identical size to the present one, with pitched footings, but further details (attributed to Sir Henry Dryden) could not be found (*Assoc. Arch. Soc. Rep.* 15 (1879) 49-59).

Circular buildings are often shrines, but no votive objects were found. The absence of domestic occupation associated with the structure may suggest that it was intended to be a public building for the small neighbouring settlement. Although little area outside the footings was excavated, domestic refuse would normally have been found in the ploughsoil had it been a house.

A further suggestion, made by Dr and Mrs Taylor of Rothamstead, is that the building could have been a dovecote, the central piers being necessary to support a platform to reach the higher nesting boxes.

Appendix I

The Pottery

The pottery drawings are given in fig 3. They were made using a template former, which is much quicker and more accurate than most methods.

The colour and texture of each pot is described, e.g. pink; pink; grey, shelly.

The first is the colour of the outside; the second the colour of the inside; the third the colour of the core, followed by a note of the pot's texture. If the pot is of the same colour throughout, only one colour is given. For rims not drawn in full the radius is also given in inches, e.g. $r = 3\frac{1}{2}$. Finally, any remarks or references are given.

Belgic

Not many large sherds of Belgic material were recovered, but the fragments were of the characteristic textures found locally at Irchester (*Arch. J.* 124 (1967) 65-99) No. 1 was found in the bottom of the ditch D2 (trench 1) and nos. 2 and 3 in the bottom of D1 (trench IV).

1. Black; black; grey, sandy and hard. De-

volved butt-beaker rim. The fabric is characteristic of local late Belgic of the mid-first century A.D.

2. Orange-brown; orange-brown; blue, Pattern common on local butt-beakers and carinated bowls.
3. Orange; orange; blue. Rim of carinated type bowl.

Romano-British

Pots 4 and 19 came from the main upper fillings of ditch 1 (trenches I and IV). The relatively large quantity and size of the sherds shows that they are an undisturbed related group (see also appendix II). A large sherd of Samian type 45 (Antonine) and the coin of A.D. 163 were found with this group.

Pot 4 compares fairly with the Lincoln race course kiln type 4b (*A Romano-British pottery kiln on Lincoln Racecourse (1950)*) dated at 180-220 A.D., and more precisely with numbers 31-32 at Lincoln Colonia (*Arch. J.* 117 (1962) 65) which are Antonine. The jars, nos. 10, 13, 14, and 15, are similar to those of the Lincoln Antonine collection (*Arch. J.* 117 (1962) 65). Thus a date of 150 to 200 A.D. is likely for this group.

4. Grey and red, sandy. Lattice patterned cooking pot. Burnished around the shoulder.
5. Grey, sandy. A dish. Other sandy-ware dishes are:-
 6. Black; black; grey. $r = 3\frac{1}{2}$.
 7. Black. $r = 3$.
 8. Grey. $r = 3\frac{1}{2}$.
9. Pink; pink; grey, shelly. A dish. $r = 5$.
10. Grey, sandy, hard.
11. Grey, sandy. $r = 2\frac{1}{2}$.
12. Grey, sandy. $r = 2\frac{1}{4}$.
13. Black; black; grey, sandy.
14. Buff; buff-pink; grey, shelly and coarse; commonly called 'calcite gritted ware', but in the present case the authors consider that the white flecky pieces are from natural fossil shells found in the local jurassic clay, and are not deliberate additives.
15. Pink, shelly.
16. Pink, shelly. $r = 3\frac{1}{2}$.
17. Blackened pink; blackened pink; grey, shelly. Cooking pot with grooved rim to take a lid. $r = 3\frac{1}{2}$ (about).
18. White-buff. Very hard. $r = 3$.
19. White. Top of a flagon.

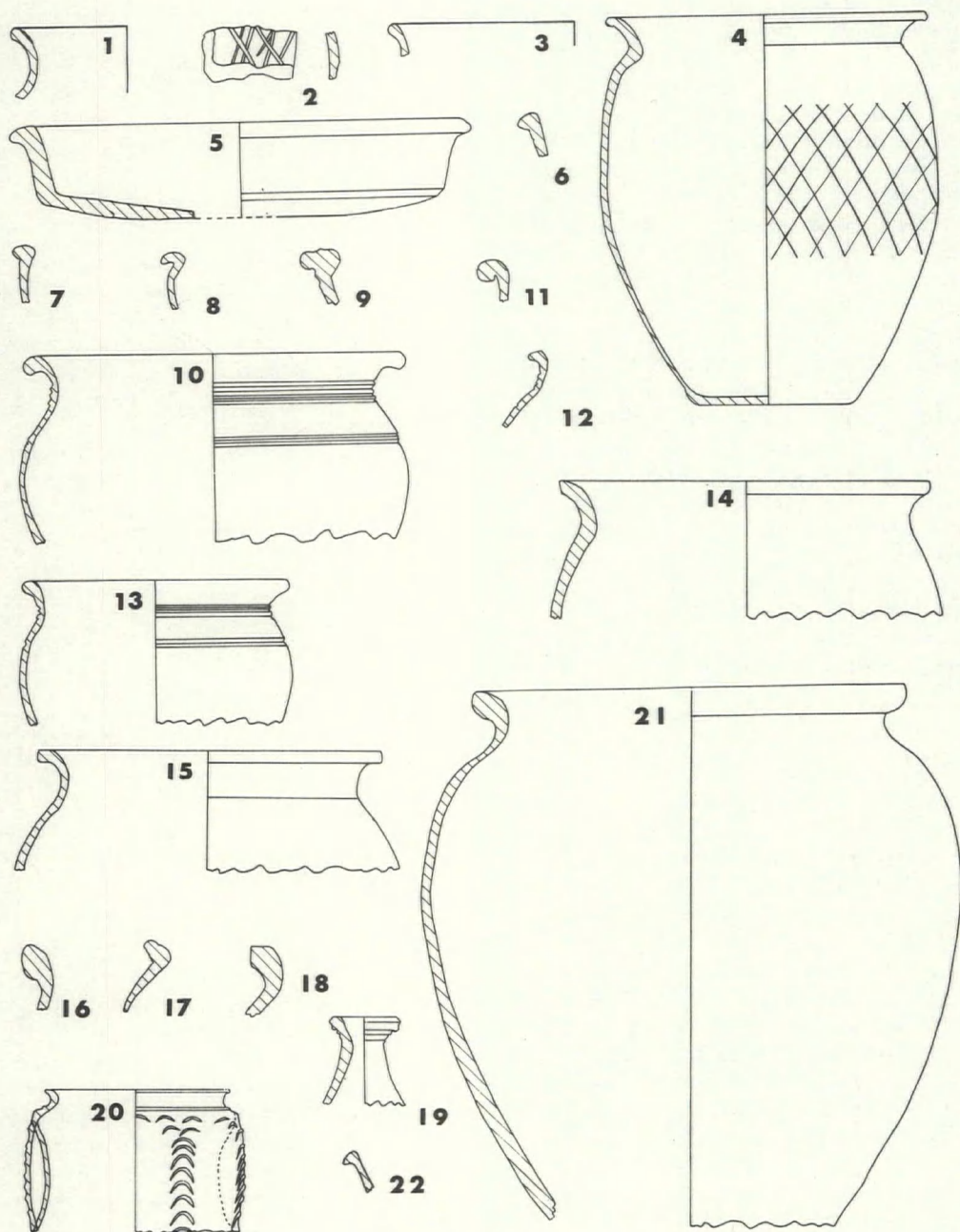


Fig 3. The pottery. Numbers 4 to 19 are Antonine.

20. White. Black colour coat inside and out. Indented scale beaker (6 indentations). Third century type. Found in the shallow pit between the wall and ditch 1, (trench I; fig. 4).
21. Grey, buff; grey, shelly. Not datable. Found in the disturbed outer wall footings in trench II.
22. White. Black colour coat inside and out. Late third century type. Found in the ploughsoil of trench I. r = 4.

Appendix II

Analysis of finds

Trench I was set out with the intention of it being part of a first quadrant, should a total excavation of the site be needed. By the time that this trench and trench II were under way, it became clear that interesting material might be to the west of trench I (and that a total excavation was not called for), so trench III was placed there. Trench IV was to obtain a cross section of the ditch found in the corner of trench I.

Except where archaeological layers can be easily followed during excavation, horizontal cuts are taken and given numbers. These are shown as dotted lines on the trench section, along with real layers, (drawn in firm lines) which become visible after balk cleaning.

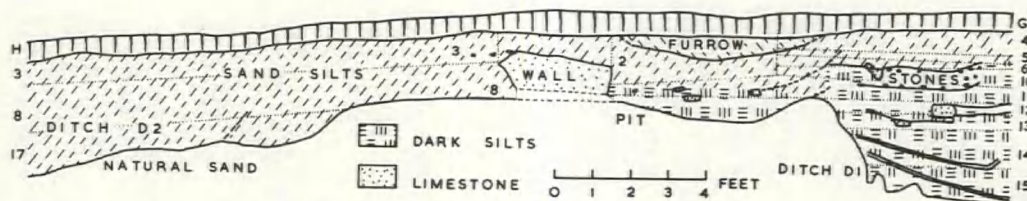


Fig 4. Section of the east face of trench I.

Trench I. (Section of east face (GH) shown on fig. 4).

Details of the pottery are given in table I. Other finds:— Daub in cuts 10, 11 and 13. Nails, and small pieces of iron etc., in cuts 2, 3, and 10.

Coin 1, in cut 12 (163 A.D.).

Obv. IMPMANTONINVS AVG rev. CONCORD AVG TRPVII COS III (Marcus Aurelius, A.D. 161 to 180, fine condition).

Trenches II, III, and IV

Other finds:—

Daub in trench III, cut 5; IV, cut 2.

Nails etc., in trench IV, cut 3; IV.5; IV.8

Horseshoe in III.3.

Cremated bone in IV.3 to bottom of ditch, but always in the same area, in the middle of the west part of the trench.

Remarks

Some of the pottery drawn (fig. 3) was made up of fragments found in more than one cut.

No. 4 was found in I.11 (6 pieces); and 1.12 (32 pieces).

No. 5 in IV.4 (3); IV.6 (1).

No. 13 in IV.6 (1); IV.7 (3).

No. 14 in 1.6 (1); 1.7 (2) 1.10 (3).

No. 20 in 1.2 (5); 1.6 (1); 1.10 (4); 1.11 (1); IV.2 (1).

From this it is clear that in trench I cuts 7/10 and 11/12 are the same archaeological stratum. The high pottery 'density' (number of pieces per cubic foot) in trench I, cuts 7, 10, 11, and 12, confirms this. Likewise in trench IV, cuts 4 and 6 are equivalent.

The distribution of pot 20 is rather complicated. The section of trench I (fig. 4) shows the ditch edge to be disturbed by a shallow pit, mostly excavated as cut 2 and part of cut 11. The largest fragments of the pot were found in cut

2, and the remainder were recovered from the other cuts which encroach on the pit.

The tables and section, in conjunction with the pottery, suggest the following sequence of events:—

- 1) Cutting of the Belgic ditches in the mid-first century A.D. The ditch (D1) silted up about half-way before the next stage: the finds below trench I cut 12, are few, and the ditch bottom in trench IV yielded nothing in the bottom two feet. Ditch D2

Table 1

ANALYSIS OF POTTERY

Cut	Total Sherds	Sherds /cu.ft.	Iron Age B	Belgic	Samian	Romano-British Castor	Sandy	Coarse Shelly
Trench 1								
1	17	0.2			1	1	2	13
2	57	1.5			1	6	25	25
3	58	0.8					5	53
4	10	0.5					4	6
5	12	1.3					6	6
6	7	0.7				1	1	5
7	25	11.3			1		5	19
8	10	0.1	1				1	8
9	11	0.1	1		1		8	1
10	92	6.5			4	5	23	60
11	71	4.5		1	1	2	30	37
12	72	13.9			3		49	20
13	7	1.4					1	6
14								
15	6	2.1					1	5
16	4	2.0		2				2
17	6	0.3		6				
Trench 2								
2	32	0.7				2	6	24
3	14	0.1			1		1	12
Trench 3								
2	10	0.3		2	3		1	6
3	21	0.1			2		4	15
4	9	0.1						9
5	5	0.6			2			3
6	5	0.1			1			2
7	5	0.4			2			3
8	5	0.4					1	4
Trench 4								
2	24	0.3			1		8	15
3	20	2.5					7	13
4	33	0.9			2	1	8	22
5	18	1			1			17
6	50	4			2		29	19
7	19	1.9		3			8	8
8	12	1.3		1	2			9

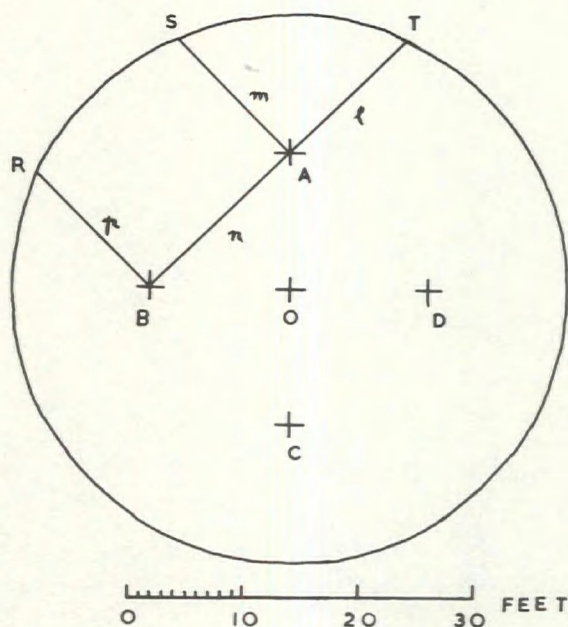


Fig 5. Conjectured plan of the building.

- was completely silted.
- 2) Occupation close by the ditches about 150-200 A.D., gave rise to the rich layers of refuse in the upper fillings of ditch D1.
 - 3) Occupation represented by the cutting of the pit (in trench I) which yielded the scale beaker (pot 20). This is probably continuous with phase 2 (above) going into the first half of the 3rd century A.D.
 - 4) Construction of the building, which cuts the pit in phase 3. No further activity is represented on the site.

Cremation remains

Cremated bone fragments were found in all levels

of ditch D1. They were, therefore, placed there after the ditch was filled, i.e. after the end of the second century A.D. As activity stopped on this part of the site at about this time, it would seem that the cremation is of about the same date as the building remains, though not directly relatable to them.

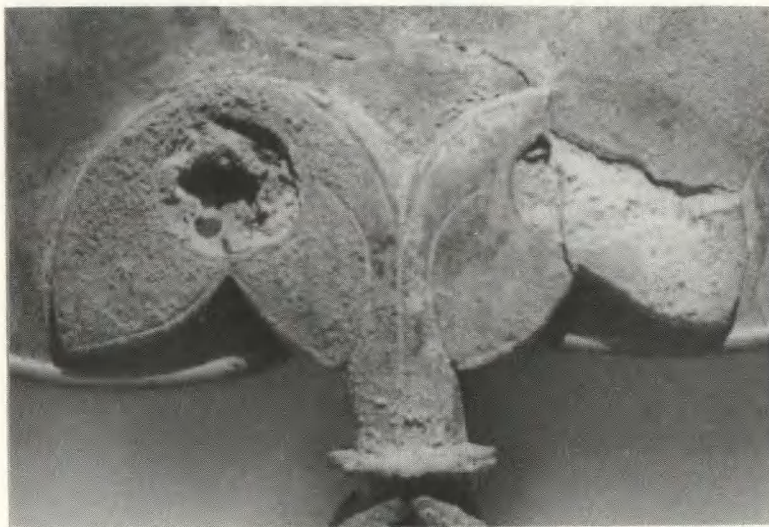
Acknowledgements

We are grateful to S. Duthie, farmer, for allowing excavation, and to G. Coleman, ploughman. Our co-workers in the excavation were E Corby and R.W. Thomas.

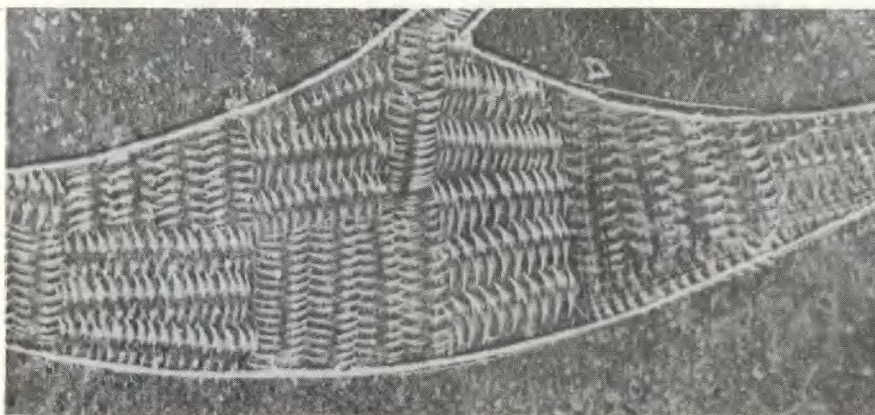
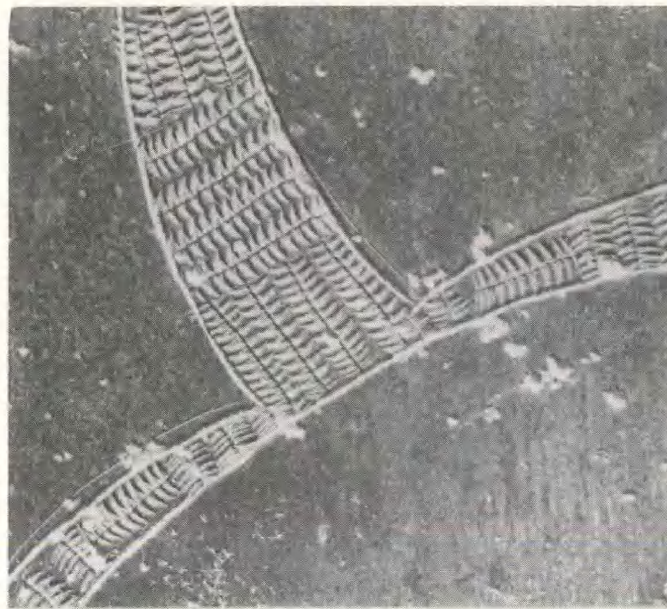
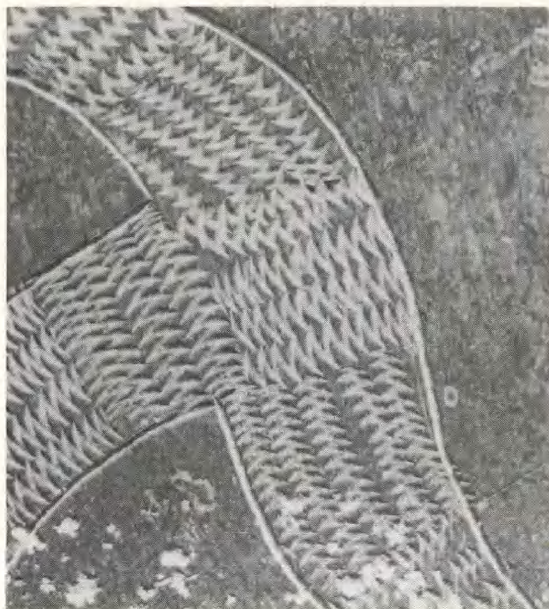
This report is the full account of the work noted in the *J.R.S.* 55 (1965) 210.



Pl. 1 Decorated bronze mirror from Old Warden, Bedfordshire.



Pl. 2 Details of the Old Warden Mirror handle.



Pl. 3 Details of zig-zag hatching on
the Old Warden Mirror.



a

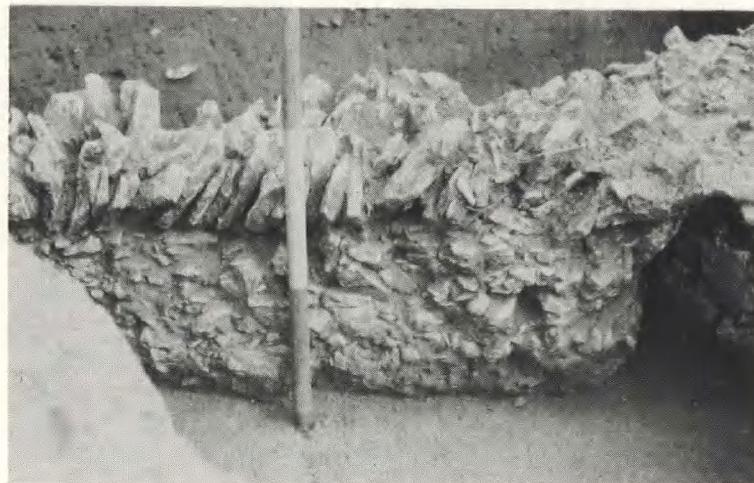


b

Pl 4 Iron Age burials from Harrold: a, in Ring-Ditch 13; b, in Ring-Ditch 16.



a

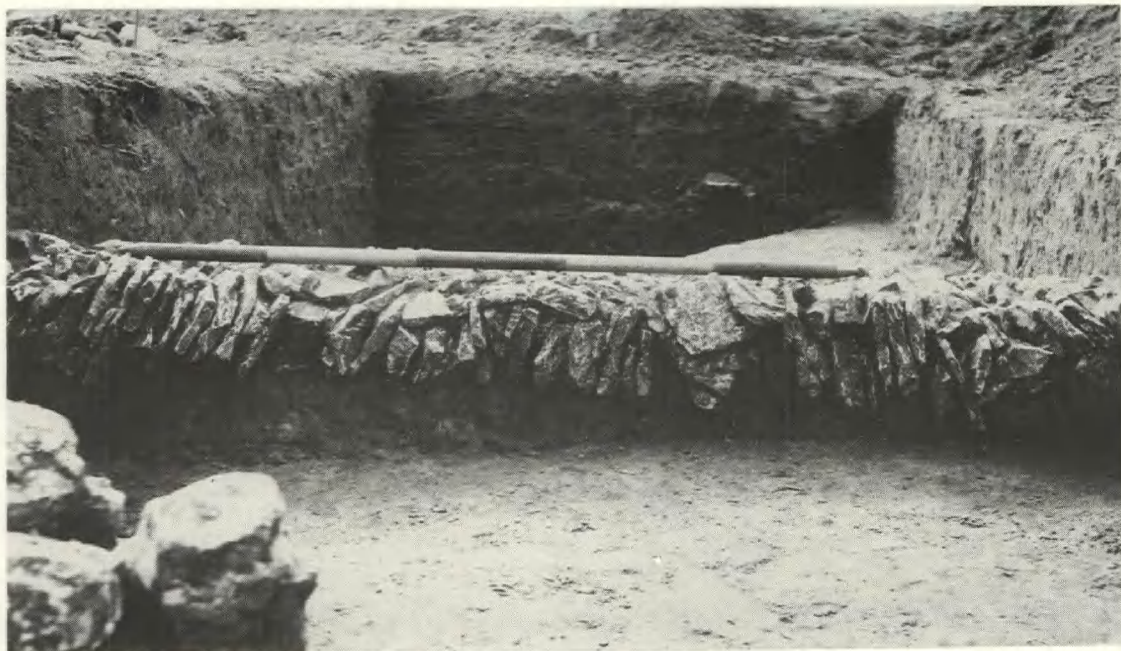


c



b

Pl. 5 Bozeat: a: Trench III looking South, showing the space between the bottom of the outer wall and the cross wall.
b: Trench I, pier B and stone cluster.
c: Trench III looking north showing construction of wall 1.

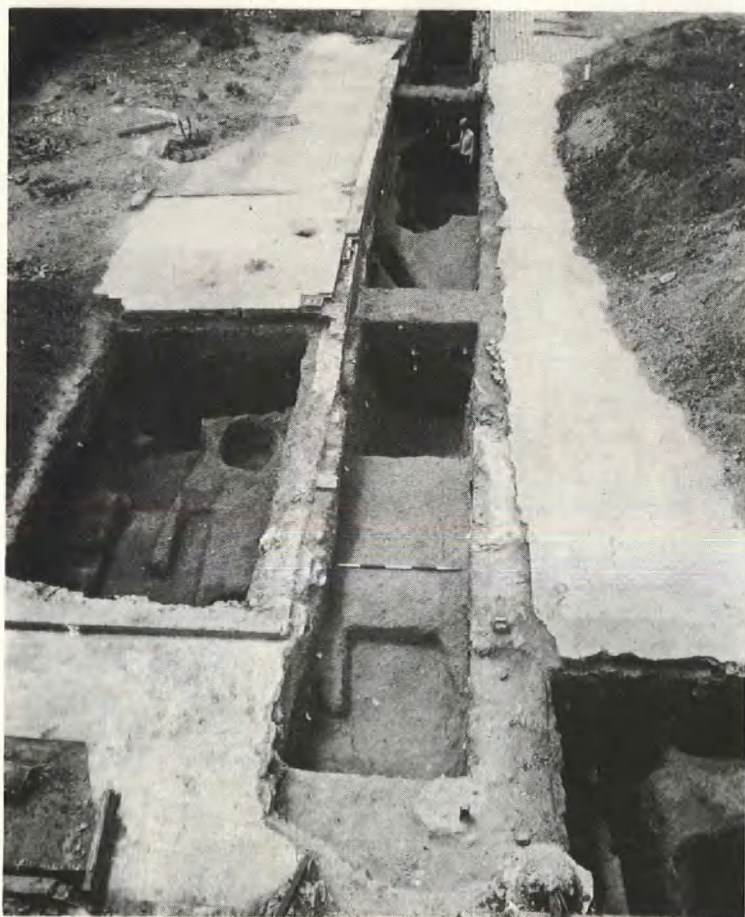


a



b

Pl. 6 Bozeat: a: Trench I looking south showing keystone in outer wall.
b: Trench III looking north, showing several courses of stonework in the outer wall and the intersection of walls l and m



a



b



c

Pl. 7 Bedford, 1967

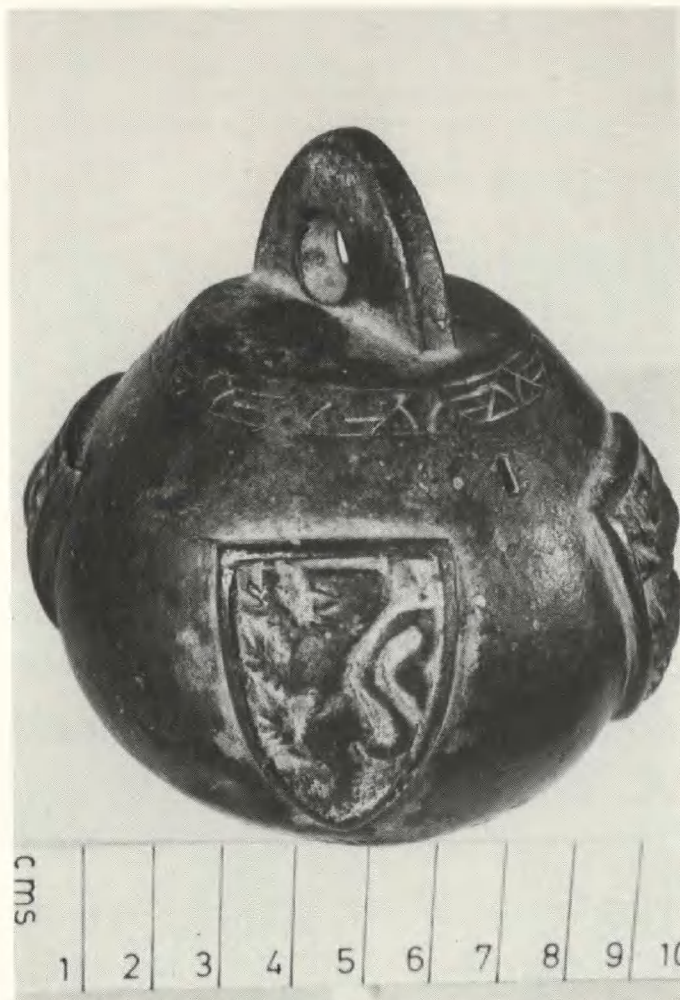
- a: General view facing west showing excavations fronting St John's Street
- b: Cauldwell Street, eighteenth century cellar, view facing west showing later modifications.
- c: St John's Street trench 4, facing west showing Pits L, R, and J.



1



2



3

4

Pl. 8 The Steelyard weight from Great Barford.

Centre, the weight.

Outer, the shields.

1. England

2. The Empire

3. The King of the Romans

4. Earldom of Cornwall.

Excavations in Bedford, 1967

DAVID BAKER

with contributions from G C Dunning, Elizabeth S Eames, Annie Grant, David Hill and Adrian Oswald

SUMMARY

Rescue excavations south of the River Ouse within the late Saxon Kingsditch produced no definitely pre-Conquest occupation evidence. Early mediaeval pits with pottery mainly in the St Neots tradition were found up to the present frontages of St John's and Cauldwell Streets. These were sealed by post mediaeval structures including an 18th century cellar and a cottage with a back-to-back hearth. Further away from St John's Street was an early 18th century pit containing an important pottery group. Finds of shell-filled early mediaeval chimney pot sherds, and a tile with relief decoration are both discussed in relation to other known finds. Clay pipes and animal bones are fully reported. The evidence for late Saxon urban development in Bedford is discussed.

INTRODUCTION

This report describes work on two adjacent redevelopment sites in Bedford, south of the River Ouse, during the last two weeks of the school summer term in July 1967. The areas fronted St John's Street, where Nos 7 and 9 had been demolished, and Cauldwell Street, where Nos 8 and 10 had last stood by the Bridewell Yard. (figs 1 and 2) (N G R TL/051493).

These sites were therefore placed centrally within the southern suburb of the town, near the main cross-roads formed by St Mary's and St John's Streets running north to south, and Cauldwell Street with Cardington Road (formerly Potter Street) running from west to east. This appears as the major junction on Speed's Map of 1611. In the Mediaeval period the square on the north of the crossroads had two churches facing each other, St Peter de Dunstable on the west, and St Mary's on the east; the former was pulled down in the 16th century.

This southern part of Bedford was bounded by the Kingsditch, a fortification whose construction is usually ascribed to Edward the Elder in 915 or

916. It enclosed an area as a fortress against Danish activity on the north bank. The original line of the Danelaw boundary had passed through Bedford. It may be appropriate to see the Kingsditch initially as a temporary military defence rather than as a deliberate piece of urban expansion: it enclosed an area as large as the northern half of the town, yet the houses shown by Speed in the early 17th century seem to have been almost entirely ribbon development along the two main roads. However the demographic patterns that would have dictated the settlement of mediaeval Bedford are obscure.

This excavation had several particular aims beyond the general one of examining an area to be rebuilt. The archaeology of Bedford is virtually an unexplored topic, and this was the first organised excavation to take place in the town. Commercial developments between the wars had produced material of unknown context now in Bedford Museum thanks to the efforts of F W Kuhlicke, and this accumulation has accelerated as urban redevelopments continue on a large scale today. Some of the pottery has been published¹ but its lack of context prevents the proposition of any overall scheme for this important centre. It was hoped to begin this task by recovering stratified pottery and pit groups. Trenches were therefore designed to test areas behind the main frontages as well as to locate any structures which had faced on to the road. Particular interest lay in ascertaining the earliest datable occupation on the site, to see if any connection appeared to exist between it and the late Saxon *burh*. This and the problem of Bedford's contribution to the study of urban origins is discussed in a separate note by David Hill.

The area available for excavation was large on the surface, but in practice limited by stretches of concrete, modern cellars, extensive modern drainage arrangements and car parking requirements. Trial trenches 6 ft (1.8 m) wide were dug at right

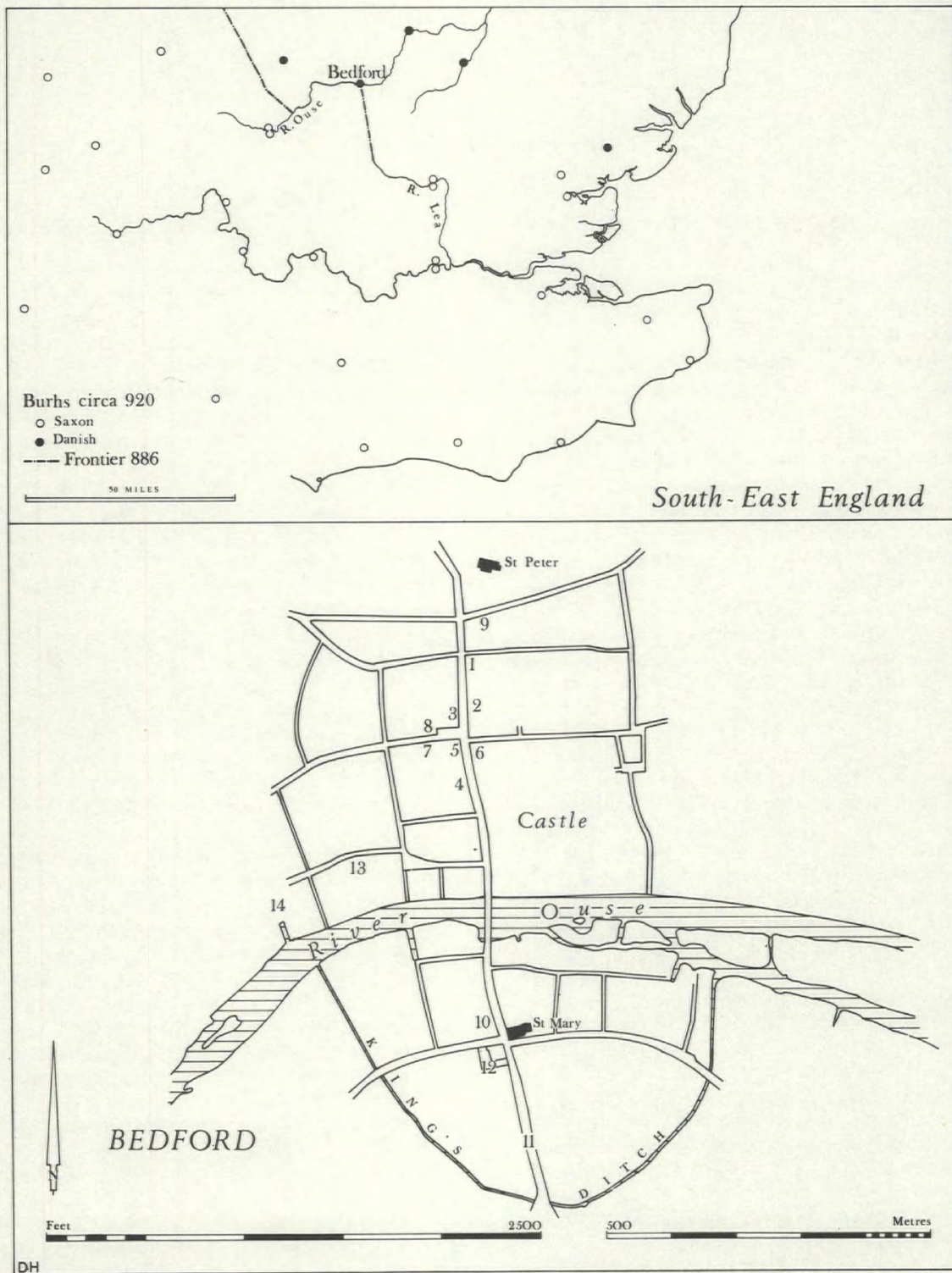


Fig 1. South east England in 920 showing Bedford with early mediaeval finds spots: this excavation is No. 12.

angles to the two main streets. On the St John's Street frontage, trenches totalled 75 ft (22.9 m) in length and were supplemented by three areas next to the modern road. The Cauldwell Street site trial was 35 ft (10.7 m) long with two small extensions at its north end and one at the south. Trenches were excavated to the natural subsoil of sandy clay and river gravels, which was cut by many pits of various dates. The site records and the finds, marked with the site code of *BSJ 67*, have been deposited in Bedford Museum.

THE EXCAVATIONS: CAULDWELL STREET SITE. (*Fig 2*)

The occupation evidence from Trench 6 can be summarised in sequence as:

- (i) pits cut into natural subsoil
- (ii) hearth, stone features and occupational layers
- (iii) 18th century cellar (*Fig 3, pl 7b*)
- (iv) 19th century brick and stone cess pit

(Pottery drawing numbers in brackets refer to sherds with closely similar characteristics to the item drawn and illustrated with that number).

(i) Undisturbed natural subsoil was relatively near modern ground surface on this part of the site, at a depth of about 2 ft (0.61 m). A large pit EE, partly excavated in the north of the trench, was the earliest feature detected here. It had a surface diameter of 18 ft (5.5 m) at the only measurable point, and at deepest was seen to be at least 6 ft (1.83 m) below the level of natural subsoil. It had been sealed by a yellow clay plug. The pottery content was consistent with a late 12th century date. (*Figs 6, 7: Nos 8, 15, (21), 26, 27, 30, (32), 33, 35, 36, 46, 47, 48, 49 and 50*). Pit DD, 3 ft 6 ins across (1.07 m) and 1 ft 10 ins (0.56 m) deep into natural subsoil, contained a mixture of pottery going towards the end of the 13th century. (*Figs 6, 7, 8: Nos 13, 31, 40 and 59*).

(ii) These pits EE and DD were sealed by a spread of sandy clay with some rubble. This was associated with two irregular stone features 13 and 22 which might have been simple footings. A small hearth 23 with a stone floor and sides rebuilt at least once had been placed over the filled pit EE. Thus an area previously used for rubbish pits may have been later occupied, though the mixed nature of the finds so near to the present

disturbed surface rendered structural identification and dating virtually impossible.

(iii) The northern part of this trench came almost directly over part of a cellar (*Fig 3, pl 7b*), whose loose fill forced an expansion of the trench out to three of its main walls and a partition. The cellar had been under the front of No 8 Cauldwell Street. Its existence had not been known prior to excavation since it had been filled during the last use of the site, and had not been detected by demolition workers. The varied building debris in the fill contained a 1928 half-penny. The deepest part of the cellar was 4 ft (1.22 m), from the surviving top of the eastern wall to the tiled floor.

The original cellar probably had had four walls of hand made bricks from the boulder clay measuring 9 in x 4.5 in x 2.5 in (22.9 cm x 11.4 cm x 6.4 cm) with yellow sandy mortar. The eastern side as excavated was a later partition butting up to the earlier sides which continued beyond it. The western side had been modified, mostly in stone, while the north and south sides showed original work. The north 3 ft 5 in (1.04 m) of the west wall consisted of five even steps, built with hand made bricks on edge, measuring 8 x 3.25 x 1.25 in (20.3 x 8.2 x 3.2 cm), showing little wear. A black slip-tiled floor was laid up to the north and south walls and to what survived of the west brick wall; it disappeared under the later east wall. These tiles were sealed together with white mortar and tar, and were laid on clay. The floor had a small ragged hole in it with burning, made at an unknown date.

Some modifications were carried out fairly soon after the initial construction. The west wall was mostly demolished, and a stone version replaced it. Its south end was placed within and up to the inturned south west brick corner; a narrow construction trench could be seen outside the stone, but not outside the earlier brick on the same side. Substantial shaped blocks of Totternhoe clunch were used as quoins. The tiled floor was destroyed in preparation for the stones except in one place where a stone lay on top of tiles still remaining underneath. The south wall and the new west wall were then damp proof coursed with 11 x 6 in (28 x 15.2 cm) roof tiles affixed upright to the lowest levels with an ash based mortar.

The type of bricks and floor tiles employed suggest a construction date in the early 18th century. It

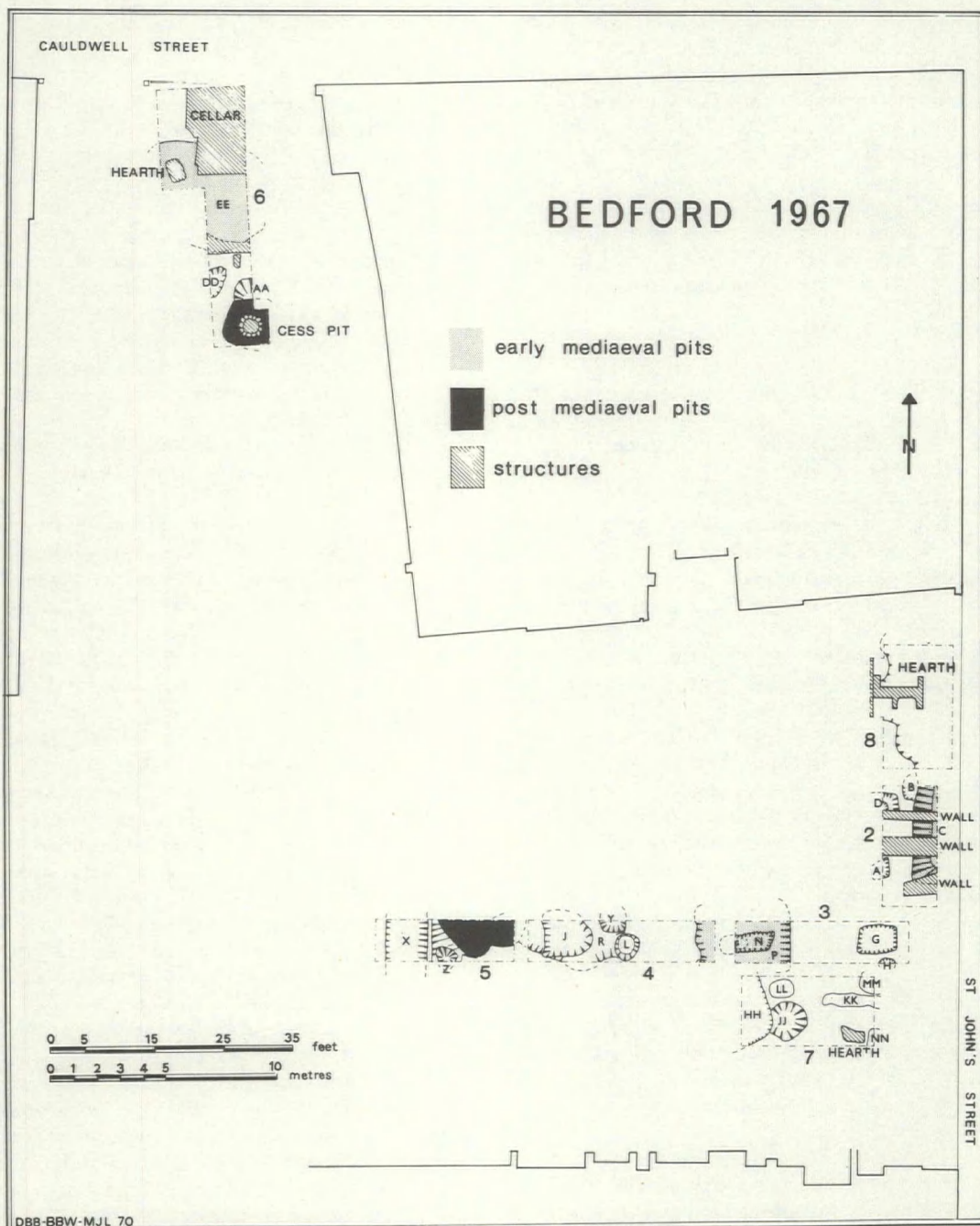


Fig 2. Main site plan.

is impossible to say on the available evidence how much time had elapsed between the first building and the first changes. Similarly the blocking of the steps cannot be closely dated beyond noting that hand-made bricks like those in the main walls were used. The worked clunch was presumably reused from another, unknown, site: the 16th century demolition of St Peter de Dunstable on the site opposite in Cauldwell Street should be mentioned here but no connection can be safely drawn. The purpose of the stone rebuilding was not evident; maybe a more substantial subterranean support was needed for a feature above the cellar.

The final set of modifications to the cellar probably date from the latter half of the last century, as suggested by the employment of machine made bricks measuring 9 x 4.5 x 2.75 in (22.8 x 11.4 x 7.0 cm). A rough, unmortared, honeycomb wall with 13 courses surviving was built to divide the cellar. The extent of the eastern part is still unknown. Two small brick pillars were built against the stone wall and seated on the tile floor; they were free-standing against it, and therefore unlikely to have been buttresses, so could more easily be interpreted as floor joist supports. This final change created a small space without any visible means of convenient entry and exit unless a floor trapdoor was employed. An understanding of the reasons for this, and of the general uses for the cellar must depend considerably upon a knowledge of the buildings standing on the site in the last 250 years. Unfortunately records are largely deficient in this matter: the Bridewell was in this area until 1802, when it was sold and cottages built eventually down the yard.²

(iv) A stone and brick cess pit was found in the south-east corner of Trench 6, sealed with brick rubble, and filled with debris similar to that in the cellar. Its internal diameter was irregular, averaging about 2½ ft (0.76 m), and its top as seen in excavation was nearly 2 ft (0.61 m) below the modern ground surface. The upper 7 ft (2.13 m) of the shaft was made of small irregular pieces of limestone. The shaft was not truly vertical, but deviated slightly to the north-east and had increased in diameter by about 9 ins (22.6 cm) before its bottom. Its filled construction pit extended a further 1 to 2 ft (30.5 to 61.0 cm) beyond the outer edge of the stonework. At a

depth of 7 ft (2.13 m) in the shaft the construction changed from irregular limestone pieces to half bricks belling out with further depth to form a cesspit chamber. The bricks were machine made and thus the whole construction would appear to date from the previous century. The size of the construction pit would have permitted the building of all that was seen in excavation. Reasons of safety and time prevented further investigation beyond the top of the brick.

DISCUSSION

Continuity of occupation on this part of the site cannot be demonstrated through structures, but the wide range of pottery from mixed layers might perhaps indicate it. It is hardly possible to discuss the early street from an examination of a 12 ft (3.66 m) width of frontage, most of which was taken up by a post-mediaeval cellar. However it may be significant that the first evidence in sequence is a pit which implies either that the contemporary frontage was further to the north, or that this was still then an open area. The rather slight stratigraphy over this pit EE might then signify either a deviation of Cauldwell Street bringing the house line further south, or the steady settlement of the area resulting in primary development of this site. Without further excavation, though, there is little here to provide any certainties on these issues.

The thorough waterproofing of the floor in the cellar is noteworthy, either as an instance of good building technique, or as some comment on the dampness of the area at its time of construction.

THE EXCAVATIONS: ST JOHN'S STREET SITE

The occupation evidence here can be conveniently summarised as:

- (i) pits cuts into natural subsoil
- (ii) occupation and structural features over pits
- (iii) structures fronting St John's Street
- (iv) recent structures and disturbances

(i) A large number of pits were found in all trenches on this site. Undisturbed natural subsoil was again at about 2 ft (0.61 m) below the modern ground surface. Except at the east side of this trench complex, the layers above were seriously disturbed by recent building activity. Few pits had clear sealing layers, so dating has to rely

BEDFORD 1967

18th cent. cellar

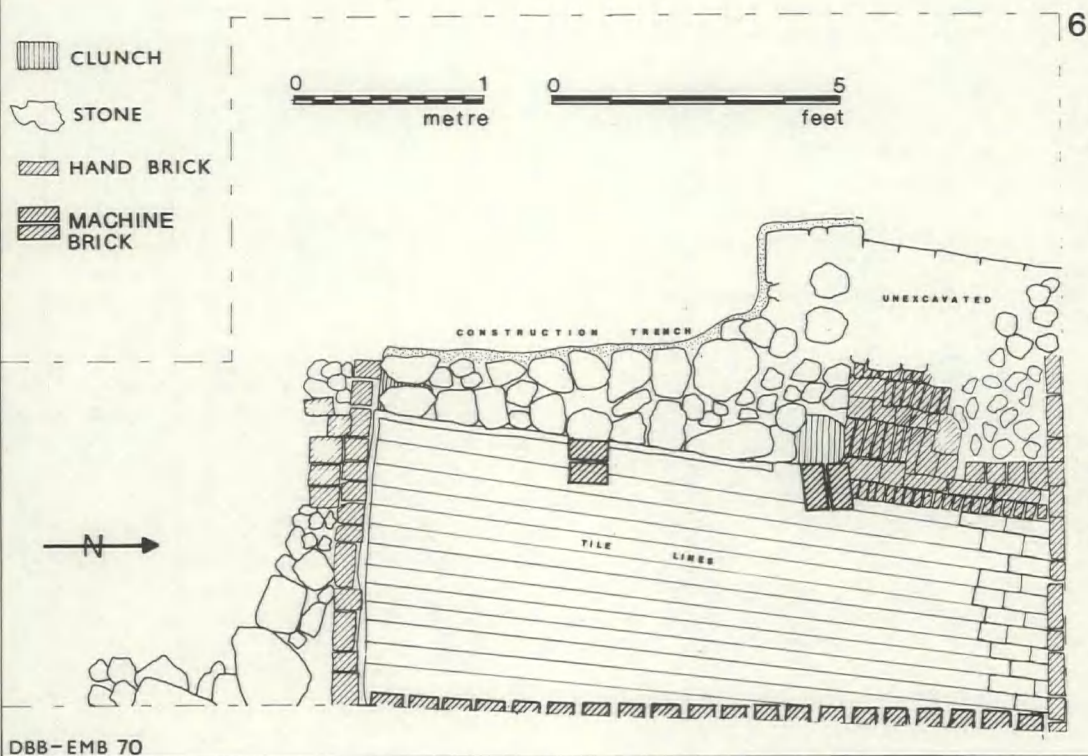


Fig 3 18th century cellar.

on pottery content. With the qualifications necessary in using such limited evidence, the description of pits can be conveniently tabulated as on table I opposite.

As a collection of pits of various dates, these were surprisingly featureless, lacking either lining or post-holes in the floors. Perhaps the identity of some as pits should be questioned when only seen in a 6 ft (1.83 m) wide trench. Pit X may be a ditch or some other linear feature. In the case of Pits M/Q, two pits had a similar fill and sherds of the same pot in each: a distinction demonstrating recutting was only seen fairly low down and in section.

(ii) Wall footings and occupation layers were

found overlying the early mediaeval pits in the trenches nearest to the St John's Street frontage. In Trench 2 a layer of dirty yellow clay 10 mixed with stones sealed Pit C. This had been cut into by a solid wall footing 18 from 2 ft 2 in (0.66 m) to 4 ft 9 in (1.45 m) below the modern surface. It was made of unshaped limestone pieces, was uncoursed, and ran east-west (Fig 5). Further south a hearth had been laid on a ground surface from which Pit HH in Trench 7 had been cut. It was made of clay tiles laid on edge and surrounded by broken packed stone. No relation to any other structural feature could be seen.

(iii) Two other later east-west wall footings were seen in Trench 2. Both were cut into a layer of

Table I Bedford: St John's Pits from Trenches 1-5, 7, 8

PIT	PLAN: PROFILE: FLOOR	DEPTH BELOW NATURAL	DATING AND PUBLISHED SHERDS
P	Large, rectangular ?; near vertical profile	3 ft 9 in at west 1.14 m at west	mid 11th—mid 12th century 3 (6) 17 18 20 25 32 39
C	Large, rectangular ?; recut ?; uneven floor	3—5 ft 0.92—1.52 m	mid 11th—mid 12 century. 16 (17), 23, (32), 37, 44 (46)
B	Rectangular; slightly sloping profile; flat floor	2 ft 6 in 0.76 m	earlier than C
N	Irregular rectangle; concave profile	2 ft 0.61 m	11th—12 century (20)
MM	Part of circumference seen only. Irregular profile	about 2 ft 0.61 m	11th—12th century
F	Rounded oblong; concave profile	about 1 ft 6 in about 0.46 m	early 12th century 21 (32)
HH	Two sides at right angles; vertical profile; flat floor.	5 ft 6 in 1.68 m	12th century. 2, (3) 6, 10, 11, (17), (18), (20), (21), 28, (30), (32), 34, (39), 45, 51
K	Long thin pit partly in trench; irregular sloping profile and uneven floor	about 2 ft about 0.61 m	late 13th—early 14th century. 53
R	Vertical sides	6 ft 3 in 1.91 m	late 13th century
X	Two parallel vertically profiled sides; sloping floor down to east	about 4 ft 9 in about 1.45 m	15—16th century 55
J	Irregularly circular; irreg. profile and narrow floor	5 ft 6 in 1.68 m	15th—16th century 52, 57, 58 60, 61, 72 ?
L	Circular; regular slightly sloping sides	about 4 ft 2 in about 1.27 m	17th century
M/Q	Irregular shape and profile; part only seen in trench; some recutting?	about 4 ft 9 in about 1.45 m	early 18th century 62-64, 66-71, 73-75, 76?, 77, 78
D	Irregular plan and profile; recut?	Deepest seen at 3 ft 9 in 1.14 m	Mixed sherds
G	Roughly rectangular; sloping profile	1 ft 2 in 0.36 m	No evidence

Table 1 (continued)

H	Irregular—corner only seen; sloping profile	11 in 0.28 m	No evidence
A	Rectangular plan; slightly sloping profile; flat floor	2 ft 6 in 0.76 m	No evidence
Y	Rectangular?; cut into R; fill not clearly distinct from it.		No evidence
Z	Circular; earlier than M/Q	about 4 ft 9 in about 1.45 m	No evidence
JJ	Roughly circular; irregular sloping profile	2 ft 6 in 0.76 m	No direct evidence but cut by HH
LL	Roughly circular; concave profile	about 1 ft 6 in about 0.46 m	No evidence
NN	Part of circular plan seen; irregular profile	about 1 ft about 30.5 cm	No evidence

black sticky earth 7 which contained a wide range of sherds including pipe clay fragments. The two footings were parallel, with the southern 5 about 2 ft (0.61 m) wide placed over the earlier footing 18 which had been cut into Pit C.

The trench to the north, which was incompletely excavated due to lack of time, produced the most substantial structure on this part of the site, a back-to-back double chimney hearth (*Fig 4*). On the south side, the hearth was semi-circular with a straight back, and lined with brick. On the north the hearth seemed of poorer quality, having three simple stone lined sides. There was some evidence that it lay over a less complex version, perhaps part of an earlier structure. On the west side, the central wall of the chimney hearth butted up to a north-south wall, whose east edge came just within the trench. There was no main east wall adjacent to the east side of the hearth, so this limit probably lay outside the trench.

The non-completion of this trench meant that little evidence was obtained to predate this structure. It overlaid layers, or the tops of pits, producing only mediaeval sherds from as far as they had been excavated. Mr Bernard West suggests that the use of stone may give an origin for the complex in the later 17th century, with the south

side reduced to a smaller brick-built grate about a century later. The north side may indicate footings for an angle-nook fireplace, with later modifications in brick. Both hearths would have been served by a common flue within one dwelling unit, in which these two rooms were probably connected by a passage between the east side of the hearths and the east wall of the house.

(iv) Recent disturbances were particularly obvious on this part of the site, where the trial trenches could only be excavated after a concrete surface had been removed. The positioning of trial trenches was similarly limited by solid brick and concrete platforms relating to the recently demolished structures. Drainage created many disturbances; five earthenware pipes ran through the site in various places, having deep construction trenches cut into the natural subsoil.

DISCUSSION

The earliest evidence on this site comes from pits which extended as far up to the modern road as trenching was possible. This may mean that there was no occupation fronting the road in the Saxo-Norman period, or alternatively that these pits were to the rear of structures obliterated or

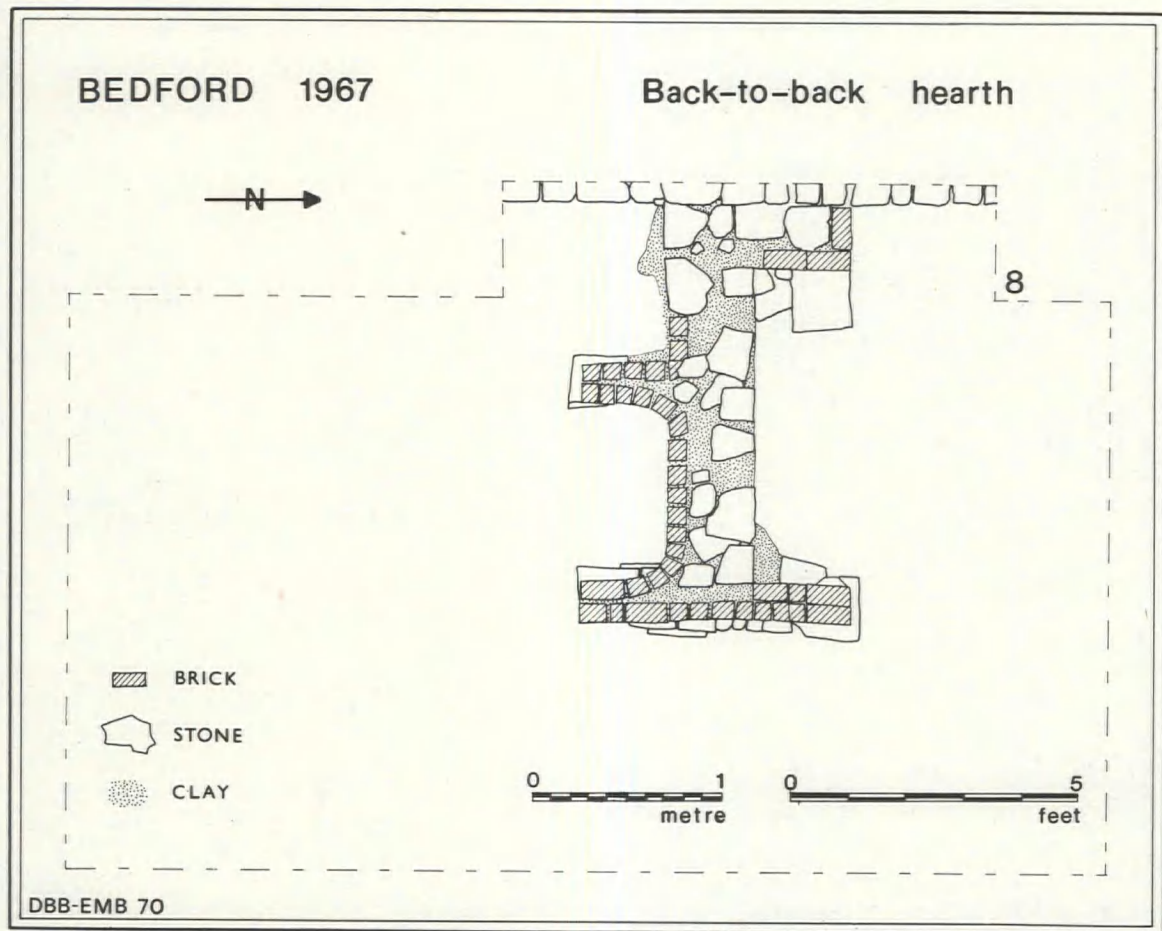


Fig 4. Back-to-back hearth.

sealed by the present St John's Street. The subsequent mediaeval occupation obviously relating to houses, and overlying the pits, is perhaps an argument in favour of earlier non-settlement. The arrangement of datable pits with Saxo-Norman occurring mainly in Trenches 2, 3, 7 and 8, 15–16th century in Trench 4 (pl 7c) and 18th century in Trench 5 may be a coincidence of positioning, or may show a development of building west from the street frontage, pushing the pits progressively west as the rear attachments to the dwellings moved out.

THE FINDS

THE POTTERY (Figs 6-9)

Much of the pottery came from layers disturbed by recent building activity; pits often contained small quantities of fairly mixed material, but several contained sealed deposits. The dating of pit groups has had to rely on the pottery alone, thus effectively basing it on material from outside the town. Knowledge of local products can be advanced when these are found in association with others securely dated from other sites, such

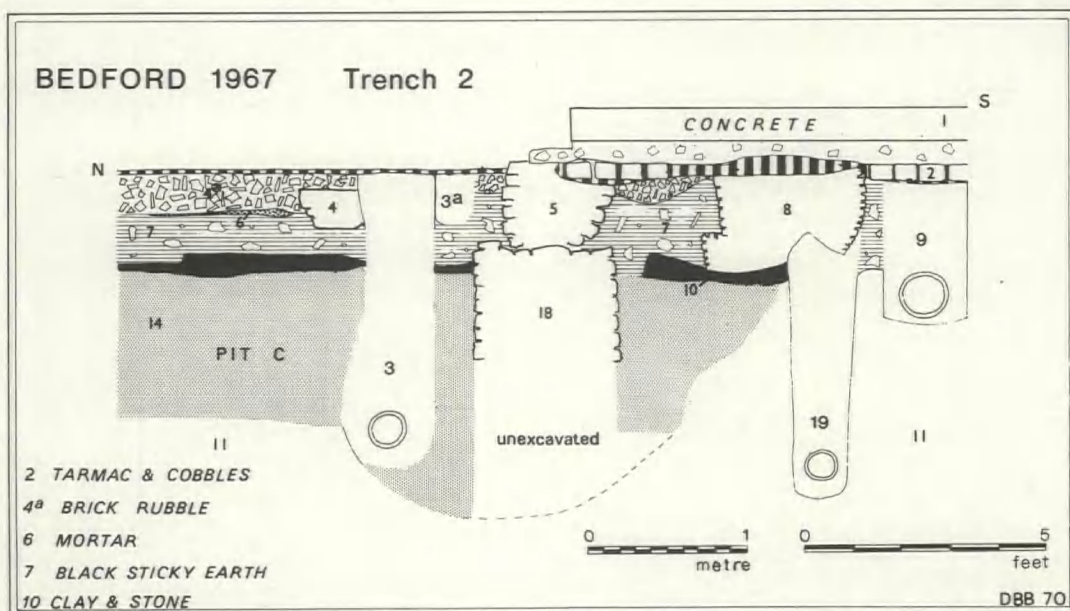


Fig 5 East section of Trench 2.

as the chamber pot No. 75 (Fig 9) with the early 18th century pottery from Pit M/Q. With groups of exclusively local material, however, like many of the Saxo-Norman groups, their chief interest at this stage may come from the internal associations they demonstrate.

Published sherds from Saxo-Norman pits therefore include major examples, either by illustration or reference, so that the groupings may be clearly shown. Sherds published from later pits are mainly those which provide their dates. In addition, some other noteworthy but unstratified examples are included as indicative of wares occurring in Bedford. It is hoped that the pottery from this writer's current excavations at Elstow Abbey and Bedford Castle will complement much of this material. Messrs J G Hurst and K J Barton have kindly given extensive advice on dating and parallels for this pottery.

The range of wares recovered was not evenly distributed in time, though this need not reflect more than the sampling of a limited area. In general the post-Conquest Saxo-Norman products were better represented than their later mediaeval successors. Sherds after the 15th–16th century were more numerous, but the proportion of post-mediaeval to mediaeval finds may have been distorted by the large Pit M/Q in Trench 5.

Certain absences were noteworthy. Only one or two residual Roman sherds occurred, and there was nothing post-Roman before the Saxo-Norman period. Better quality wares of the 13th and 14th century were scarce, particularly from the Oxford region, though known at Cauldwell Priory; imports from Lyveden in Northants, and Grimston in Norfolk occur at Elstow Abbey immediately to the south, but not on this site.

A. SAXO-NORMAN WARES (Figs 6, 7, Nos 1-51)

St Neots, Early Mediaeval and Stamford wares were represented here. On present evidence none of the pottery need be earlier than the middle of the 11th century, and much of it is likely to be 12th and early 13th century. Developed forms predominated.

Pottery in the St Neots tradition had the usual shell-filled fabrics. The smooth or soapy surface was more or less common to all, depending on the prominence of the shell-gritting. Developed examples, such as Nos 27, 30, 33 from Pit EE had a smoother surface appearance but a slightly more abrasive feel. Surface colour varied widely, from the usual purple-brown to a grey-brown buff. The core of the fabric was usually dark grey with many shelly flecks, but in more cases this

fabric was quite hard and often slightly harsh to the touch. Some variations from these standards may suggest a range of dates and local sources. The attempt to isolate fabric types is reserved until a larger volume of material is available. Bowls, dishes, many cooking pots and few jugs were found, as well as the chimney pots discussed below by Dr G C Dunning (*Figs 10, 11*).

The Early Mediaeval ware with its hard sand filled fabric occurred less than the shell filled St Neots tradition material. Bowls and cooking pots were found. The most important items found in this ware were a spout and body sherd with an applied thumbled ribbing strip which Mr J G Hurst suggests are parts of a firecover.

The lower part of a strap handle from a jug was the only notable example of the three Stamford ware sherds found.

Table 2 shows the proportions of these three wares in the dated pits, by sherds.

TABLE 2

PIT	DATE	SHELL	SAND	STAMFORD	PROPORT: SAND-SHELL
P	mid 11th-mid 12th	137	1	—	1: 137.0
C	mid 11th-mid 12th	45	13	—	1: 3.5
N	11th-12th	10	—	—	
MM	11th-12th	7	—	—	
F	early 12th	22	19	—	1: 1.2
HH	12th	132	19	2	1: 6.9
EE	late 12th	180	65	—	1: 2.8

Shell and sand filled fabrics coexist in the post-Conquest period up to the 13th century, with the former numerically dominant according to this table. The small amounts involved do not admit any general inference about changing quantitative relationships. It should be noted that similar forms occur in both fabrics, such as No 36 from Pit EE.

I. SHELL-FILLED WARES OF ST NEOTS TYPE

The fabric is dark grey, shell filled, and fairly hard unless an alternative description is given. Pit group sherds are mentioned.

1. Large thick walled bowl; rim sherd and upper part; slightly thickened and rounded simple rim. Light grey-brown surfaces.

2. Shallow dish with rounded profile and simple near upright rim; sagging base from moulded basal angle; grey-brown surfaces. Pit HH.

3. As 2 with external basal ridge more pronounced; light red-brown fabric with rough yellow-grey surfaces. Pit P. Similar example in Pit HH.

4. Bowl with rounded 'hammer-headed' rim. Pink-brown surfaces. Rim sherd only. See D H Kennett: 'St Neots Ware from Bedford', *Beds Arch J* 4 (1969) 22, fig 4, 11.

5. Bowl with rounded 'hammer-headed' rim. Internal flange more elongated than in 4 above. Rim sherd only. Fabric softer and slightly darker than normal; light grey-brown surfaces.

6. Small bowl with inturned flange rim and high sharply angled shoulder. Pink-brown surfaces with some external burning. Rim and part of side. Pit HH; similar example Pit P.

7. Large deep? straight-sided bowl with simple upright rim. Dark grey-red brown surfaces. Rim and part of side.

8. Bowl similar to 3 above, but with side at out-sloping angle. Red interior and dark burnt exterior. Pit EE.

9. Bowl with flat topped rim, making sharp external angle and small internal flange. Grey-purple surfaces. See Kennett *op. cit.* 23, fig 5, 26.

10. Bowl with simple inturned rim and pronounced external shoulder. Rim sherd; purple-brown surfaces with some external burning. Pit HH.

11. Bowl with near upright rim with slight external beading. Rim sherd. Grey-brown surfaces with some external burning. Pit HH.

12. Small bowl with slight internal flange on rim. Rim sherd. Black surfaces.

13. Bowl with squared rim and slight inturned flange. Purple-brown surfaces. Slight external burning. Pit DD.

14. Bowl with rounded 'hammer-headed' rim and raised upper edge on internal flange. Light brown-grey surface.

15. Small cooking pot with slight external flange on simple everted rim. Light grey-brown hard fabric. Grey-brown surfaces with external burning.

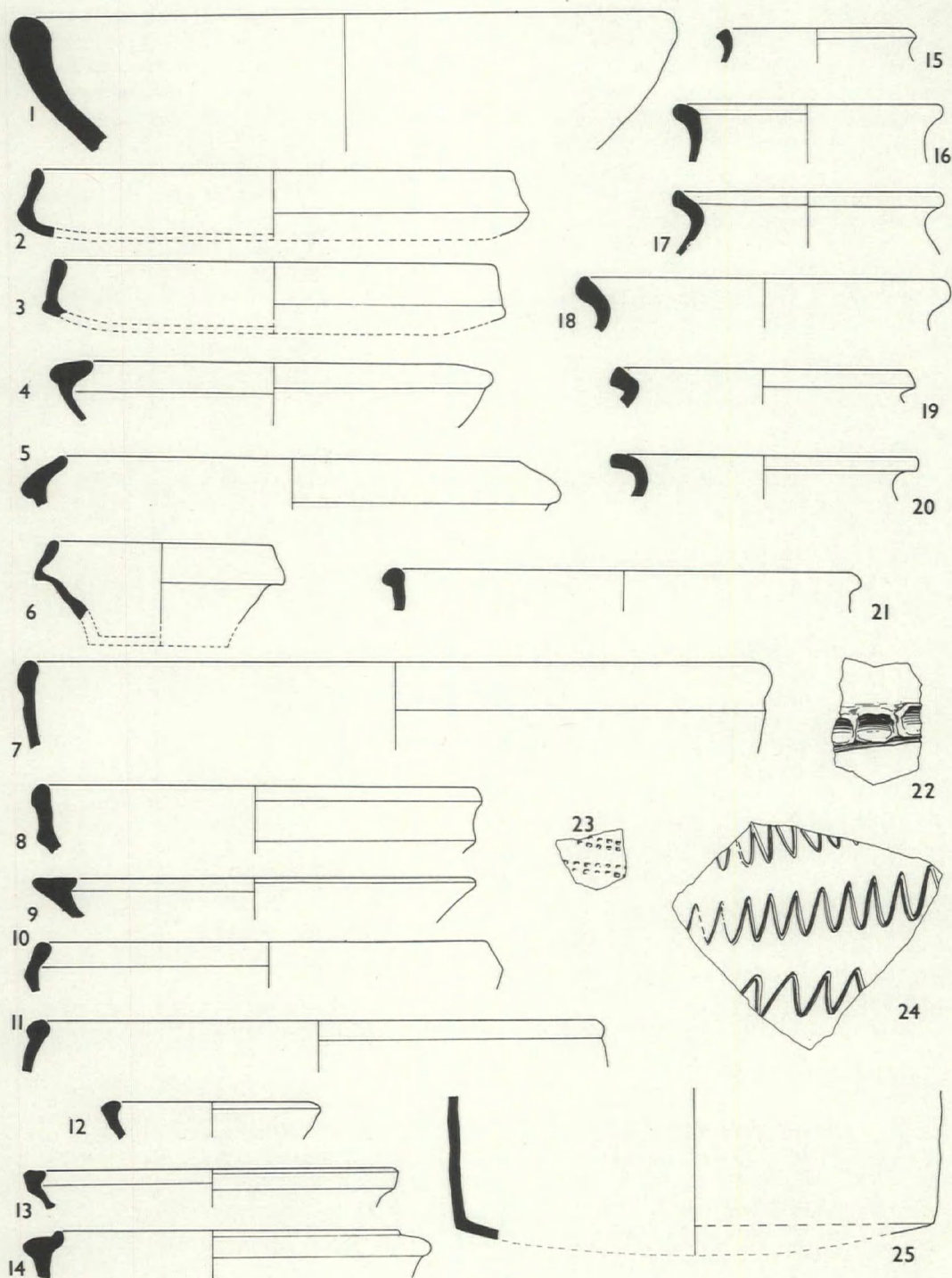


Fig 6 Pottery: shell-filled wares of St Neots type (scale $\frac{1}{4}$).

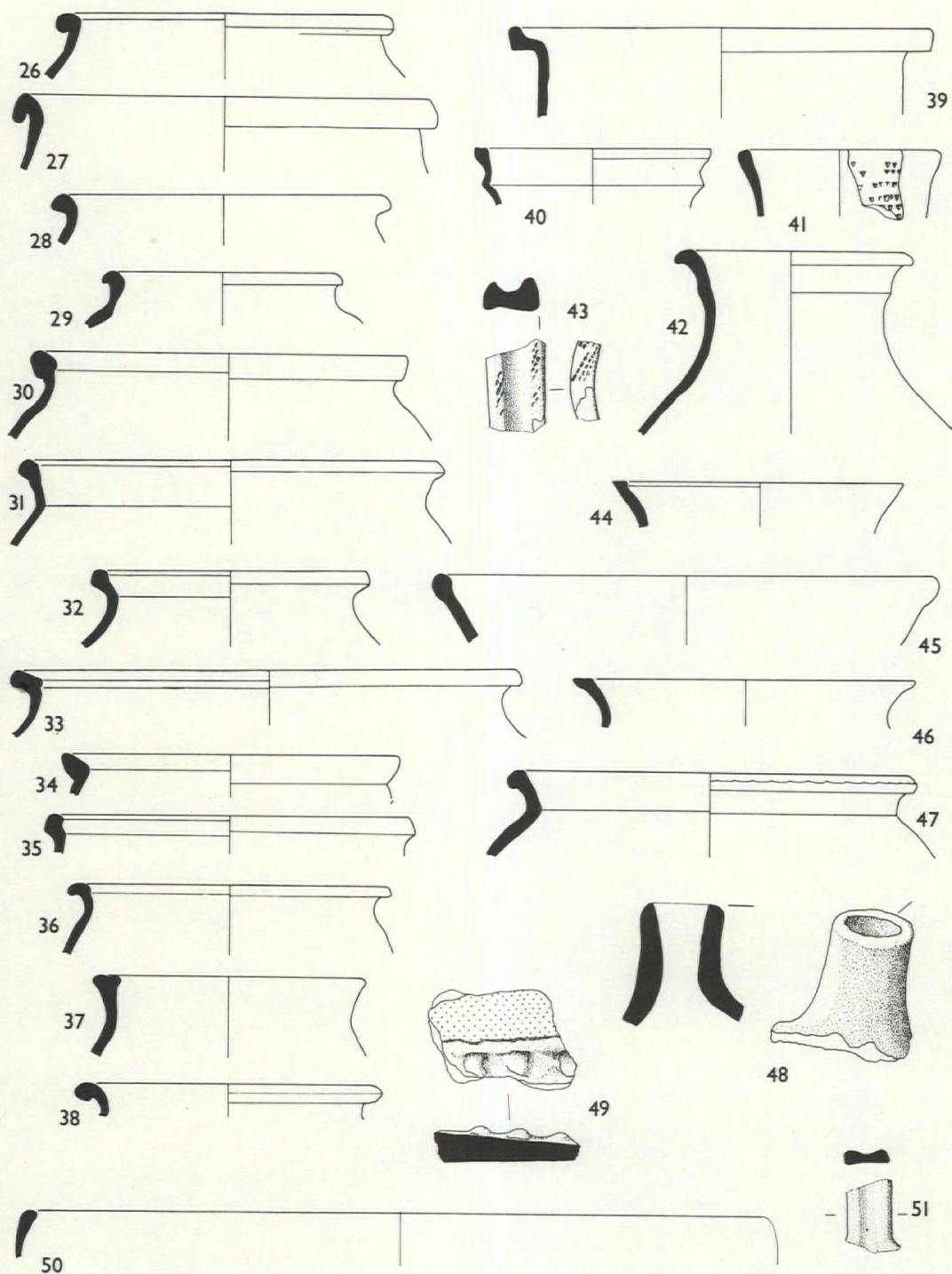


Fig 7 Pottery: shell-filled wares of St Neots type, Nos 26-42; Early Mediaeval ware, Nos 43-50; Stamford ware, No. 51. (Scale $\frac{1}{4}$).

Pit EE.

16. Cooking pot with slightly everted rim and small internal shoulder. Rim sherd. Pit C.

17. Cooking pot with everted squared off rim and slight internal hollowing. Light pink-brown surfaces. Pit P; similar examples Pit C, HH.

18. Cooking pot with everted rim and slight external bead. Light grey-brown surfaces. Rim sherd. Pit P; similar example Pit HH.

19. Cooking pot with small sharply everted squared-off rim and slight internal hollowing. Dark grey-light brown surfaces and external burning.

20. Cooking pot. Simple everted rim sherd squared off. Buff-grey surfaces with burning on exterior and top of rim Pit P; similar examples in Pits HH, N.

21. Cooking pot with upright rim and slight external bead. Dark grey surfaces. Rim sherd. Pit F; similar examples in Pits HH, EE.

22. Cooking pot body sherd with external applied finger pressed strip having slight underside underscoring. Grey-brown surfaces.

23. Body sherd with two double rows of square rouletting on outside. Thin sherd in hard dark grey fabric. Light red-brown surfaces. Pit C.

24. Storage jar body sherd with three rows of horizontal zig-zag decoration on exterior. Light red-brown surfaces. See E M Jope: 'Mediaeval and Saxon Finds from Felmersham, Beds.' *Antiqs J* 31 (1951) 48-9, fig 2. 4.

25. Sagging base and side (part of) cooking pot. Dark grey burnt external and light grey internal surfaces. Sharp external basal angle. Pit P.

26. Cooking pot rim sherd; large external bead rim and high internal shoulder; light grey-brown hard fabric with light pink-brown surfaces. Included within fabric of rim: piece of red iron ore, probably haematite, with small fossil, possibly Jurassic. (Information from Dr D P S Peacock).

27. Cooking pot rim sherd; external folded-over rim, slight internal hollowing to make pinched up rim with top cut flat. Hard fabric with light brown surfaces and external burning. Pit EE.

28. Cooking pot with thickened short everted rim. Rim sherd. Hard grey fabric with light grey-brown surfaces. Pit HH.

29. Cooking pot rim sherd with slightly turned-out rim and thinned neck. Pink-brown surfaces.

30. Cooking pot rim sherd; everted rim thickened to slight bead internally and externally. Light

red-brown surfaces, hard fabric; some external burning. Pit EE; similar example Pit HH.

31. Cooking pot, thin walled rim sherd; slightly everted squared rim; light grey-brown surfaces much blackened. Pit DD.

32. Cooking pot rim sherd; everted squared rim and internal hollowing. Light grey-brown surfaces. Pit P; similar examples Pits HH, EE, F, C.

33. Cooking pot rim sherd; elongated everted rim with slight beads internally and externally. Hard fabric, light grey surfaces. Pit EE.

34. Cooking pot rim sherd; small slightly tapering everted rim; grey hard fabric grey-brown surfaces. Pit HH.

35. Cooking pot rim sherd; rim externally square, with pronounced hollow groove internally. Pink-brown surfaces and some external burning. Pit EE.

36. Cooking pot with pulled out everted rim and small internal bead. Pink-brown surfaces, some external burning. Pit EE; similar example in hard sandy fabric Pit EE.

37. Cooking pot rim sherd with upright thickened rim having hollowed top and slight internal bead. Hard fabric and dark grey surfaces with some external burning, Pit C.

38. Cooking pot rim sherd with curving everted rim. Hard fabric with pink-brown surfaces and some external burning.

39. Straight sided cooking pot with L shaped rim square externally and hollowed internally. Light brown-grey surfaces; more friable fabric. Pit P; similar examples Pit HH.

40. Jug rim sherd with hollowed top and one horizontal neck ridge. Hard fabric; purple brown surfaces.

41. Jug ?; rim sherd; simple rim with parts of 6 rows of irregular triangular rouletting on exterior; burning on exterior. Pit DD.

42. Jug, rim, neck and upper body sherd; everted and slightly pulled out rim. Orange-grey surfaces and hard fabric.

II. HARD SANDY WARES OF EARLY MEDIAEVAL TYPE

43. Strap handle with U shaped section, having rectangular rouletting on outside raised face and on one side, in diagonal rows. Grey fabric. Pit AA.

44. Cooking pot ? Long everted rim with flat top and slight internal bead. Grey fabric. Pit C.

45. Bowl. Rim sherd with slight thickening at top. Pink-grey fabric with dark grey surfaces.

Pit HH.

46. Cooking pot; outcurving rim sherd with flat top. Grey fabric. Pit EE. Similar example in Pit C.

47. Cooking pot with everted rim having external bead and slight finger impressions along rim outside just below top. Grey fabric with pink-brown surfaces, Pit EE.

48. Spout of firecover. Dark grey hard fabric with grey-brown surface having some burning. Spout slightly flared at mouth. Pit EE.

49. Body sherd, probably of 48, of similar composition. External applied ribbing strip. Pit EE.

50. Bowl with upright rim curving in slightly. Grey fabric with orange-brown surface and some external burning. Pit EE.

III. STAMFORD WARE

51. Strap handle, lower part; in hard buff-white fabric with pale yellow-green glaze having yellow blotches. Pit HH.

B 13TH-16TH CENTURY WARES (Fig 8, Nos. 52-61)

Finds from the earlier part of this period were few, and three examples are published (Fig 8. 52-54) for their individual interest. For the later centuries Pits J and X produced a quantity of 15th and 16th century material. The sherd with lug of a chafing dish (No 55) is notable. Local coarse wares (Nos 57, 58) demonstrate the 16th century transition from later mediaeval hard sandy wares to hard red fabrics. Tudor Green (No 59) occurred in Pits L and D; sherds representing two or three Raeren jugs came from Pits J and L; in Pit J were parts of three Cistercian ware cups (two illustrated Nos 60, 61)

52. Jug, body sherd. Hard light off-white fabric, with buff exterior and purple strip decoration; two triple rows of rouletting, along strip and parallel to it. This sherd appears to be in the Oxford tradition but lacks the characteristic fabric. Mid 13th-14th century. Pit J.

53. Fish dish or dripping pan. Hard grey sandy fabric with light orange-brown surfaces. Olive green mottled glaze on inside base. Sharp diagonal knife trimming at external basal angle. Top of the rim trimmed flat. Late 13th-early 14th century. Pit KK.

54. Large bowl; base and lower part of side. Hard grey sandy fabric with grey core and red

surface area. Rough brown glaze on external sides, olive green glaze inside. Spots of clear glaze on external base. 14th-15th century. Unassociated.

55. Chafing dish with small short flattened lug. Grey fabric with pink surface. Light green glaze with some salmon pink mottling on inside. Circular hole pierced near rim. A full reconstruction is not attempted here, though the dish may have four handles. Late 15th-early 16th century. Pit X.

56. Jar ?; Rim sherd with slight external bead and internal rim for lid just above shoulder. Hard grey sandy fabric with orange-brown surface. Worn spotty clear glaze on outside. Trench 3, over Pit F. 15th-16th century. For similar form see: David Sturdy: '13th century and later pottery ... from Oxford.' *Oxonien* 24 (1959) 28, fig 12. 4, 8, 11.

57. Cooking pot, rim sherd. Hard sandy fabric in red-grey-red sandwich. Rim deeply hollowed on top. 16th century. Pit J.

58. Bowl? Rim sherd. Rim folded over to give external protruding ledge. Hard red fabric with grey core in rim only. Orange-brown surface with spots of clear glaze on top and inside. 16th century. Pit J.

59. Cup ?; Rim sherd. Light buff fabric, all over deep green glaze. Tudor Green. Pit D.

60. Small Cup, base and side up to top of shoulder, including lower handle attachment. Hard purple fabric with shiny black tin glaze inside and outside except base. Cistercian Ware. Pit J.

61. Small Cup, base and side including lower handle attachment. Hard purple fabric with shiny black tin glaze inside and outside except base. Cistercian ware. Pit J.

C. 17TH AND 18TH CENTURY WARES (Figs 8, 9)

Nearly all this material came from Pits M and Q, and consists mainly of fine wares. The small amount of material might suggest that deposition occurred over a short period, and concluded with the chamber pot (No 75) in view of its near completeness. The pit groups represent trading with London and Staffordshire; the presence as far inland as Bedford of a sherd possibly from the Western Mediterranean is noteworthy (No 78). In general the group includes the wares that might be associated in an early 18th century context, with the important addition of the more localised chamber pot (No 75). Drawn sherds are from Pits M and Q unless otherwise stated.

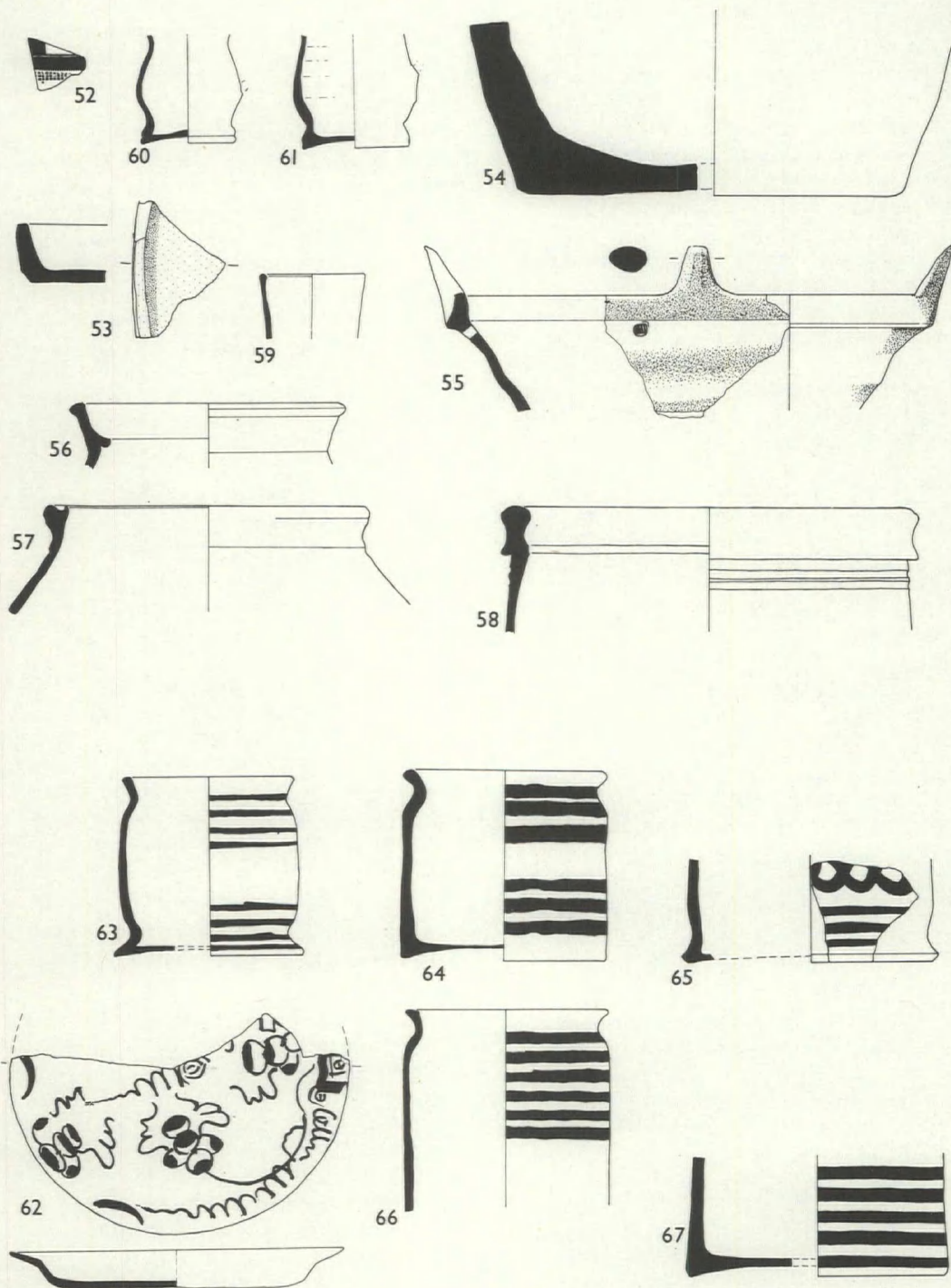


Fig 8 Pottery: 13th-16th century wares, Nos 52-61; early 18th century English Delft, Nos 62-67. (Scale $\frac{1}{4}$)

I. ENGLISH DELFT WHITE TIN GLAZED BUFF EARTHENWARE

62. Plate with irregular blue decoration influenced by Chinese style over entire upper surface. Mid-late 17th century.

Not Drawn: Plate base sherd with blue floral motif on blue-white glaze, early 18th century; Bowl body sherd with internal blue linear decoration, early 18th century.

63-67. *Lambeth Drug Jars.* This group may have been broken and discarded at one time, except for 65. Surviving bases had unglazed raised undersides. Late 17th-early 18th century.

63. Jar with slight shoulder and everted flat-topped rim; body narrows above flared foot-ring base. Two sets of four blue rings at top and bottom of exterior. Internal white glaze slightly pinkish.

64. Jar with slight shoulder and everted rim, straight-sided below. Two sets of three blue rings around exterior at top and bottom of jar. Blue-white glaze.

65. Jar, base and lower part of side. Three blue bands around base with interlocking pair of wavy bands above. Rubbish survival in 20th century fill of cellar in Trench 6.

66. Jar; rim and upper part of side with slight shoulder and everted rim with flat top. Six blue rings around upper part of exterior. Blue-white glaze.

67. Jar; base and lower side. At least five blue bands around base. Blue-white glaze.

Not Drawn: Parts of at least two other jars, including two base and two rim sherds.

68. Basin: plain white delft, with slight blue tinge. Handled? Simple flanged rim. Base below angled foot rim thinner than body above it. Early 18th century. See K J Barton: 'An 18th century Rubbish Pit in Trinity Street, Chester.' *Chester Arch Soc J* 44 (1957) 25, Fig 2, No. 14.

II. ENGLISH SALT-GLAZED STONEWARE

69-70: *White Salt-Glazed Stoneware*

69. Small saucer with squared foot ring and plain rim. Early 18th century.

70. Bowl: slightly outward flared rim; engine-turned grooves, single on outside of rim, double 3 cms. from top of rim, double at bottom of side. Short broad square footring and slightly sagging base. Early 18th century.

Not Drawn: Jar, rim and side, double groove around outside of upright rim 4 mm beneath it, early 18th century; globular tankard, part of

lower body with handle attachment, lower part of handle attachment has one finger wipe, engine turned grooves starting 42 mm above bottom of lower handle attachment.

71. *Other stonewares*

71. Half-pint tankard, base, Buff orange fabric, brown salt-glaze externally, brown slip internally, Six horizontal raised rings above basal angle with some knife trimming. Glaze poor on base. Nottingham, early 18th century.

Not Drawn: Tankard; sherd in grey stoneware. London or Bristol.

III. FINE YELLOW FABRICS FROM STAFFORDSHIRE AND BRISTOL

72. Rim of small cup. Fairly coarse cream coloured fabric. Yellow lead glaze and brown raised spots on top of rim. Mid 17th century. Pit J (stray?) see: K J. Barton: 'St Nicholas' Almshouses, Bristol' *Med Arch* 8 (1964) 202, Fig 67, No 21.

Not Drawn: Mug?; yellow slip ware, having part of applied black dot decoration with slight downward run. Late 17th-early 18th century. Staffordshire or Bristol. See: K J Barton: 'Some evidence for Two Types of Pottery Manufactured in Bristol in the early 18th century.' *T Bristol and Glos Arch Soc* 80 (1962) especially 165, fig 2 Nos 4, 5.

73. Yellow slip ware dish; buff yellow fabric, internal glaze, notched rim, trailed brown decorations on inside. Staffordshire.

Not Drawn: other examples with; pinkish fabric, plain rim, trailed brown decoration; buff yellow fabric, notched rim, feathered decoration; pinkish fabric, joggled brown decoration. Late 17th-early 18th century.

Not Drawn: Staffordshire mottled wares: Tankard handle with brown slip and buff fabric; handle and part of body as above with mottled brown slip. Early 18th century.

IV. RED OR ORANGE EARTHENWARE

74. Colander; orange fabric, clear internal glaze, external orange brown slip with splashes of glaze. Round holes pierced at slight angle in base, in lines radiating out from centre of base. 17th century; unassociated. Some similarity of form with Potterspury products; see: Philip Mayes: 'A 17th century Kiln Site at Potterspury Northants' *Post-Med Arch* 2 (1968) fig 28. 17-19.

75. Large bowl with handle; chamber pot. Hard

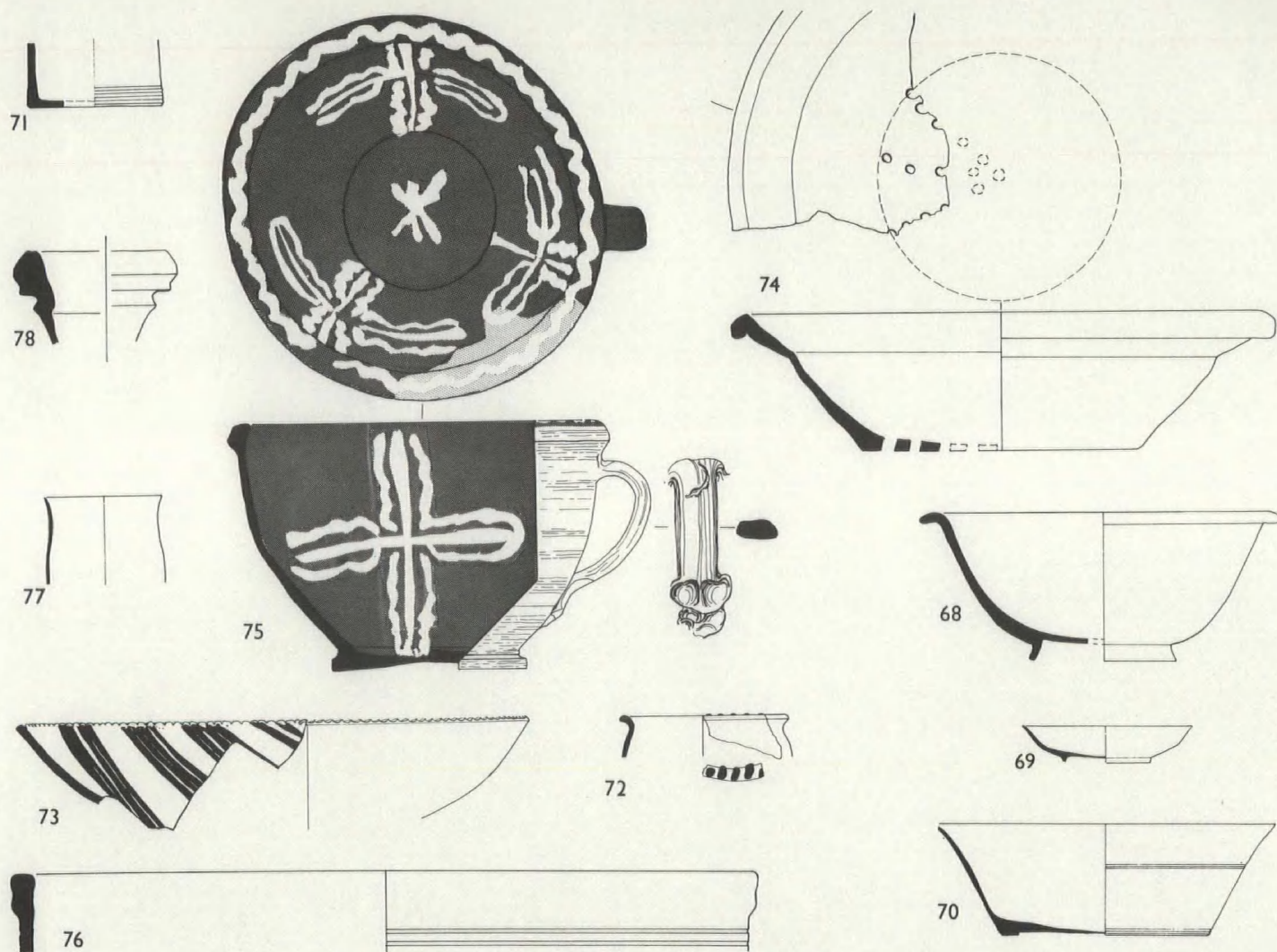


Fig 9 Pottery: 17th-18th century wares, Nos. 68-78. (Scale $\frac{1}{4}$)

thin brickred earthenware fired rapidly and hard in a reducing atmosphere, lying sideways on flange. Olive green and clear mottled glaze showing signs of flaring on inside. White slip decoration on rim and inside; three cross motives on inside and small star on inside base. Strap handle with top moulded into body just below rim, and bottom spread out and pressed against body two-thirds way down. Some glaze splashes on base underneath. First quarter of 18th century. This vessel is not paralleled by contemporary wares from Stoke-on-Trent; in form its character is similar to, but not the same as, vessels from Pottersbury; its decoration has some parallel with that on Metropolitan wares found at Harlow.

Not Drawn: Tall tygs, ten sherds including four bases all rising to some extent, red fabric with brown lead glaze, 17th century. see: K J Barton: '17th century pottery: Sites at Harlow, Essex,' *T Essex Arch Soc* 25 (1960) 364-8.

76. Bread crock, rim sherd. Hard fired coarse red fabric with heavily slipped interior. Iron slip overlain with near-black iron permeated glaze. Late 18th century. The existence of one small sherd of such a large vessel, out of step with the fairly tight chronology of the remainder of the group from Pit M/Q may indicate that it is a stray.

V. FINE RED WARE

77. Tankard, rim sherd. Red ware with, black glaze. Trench 4, layer 4.

Not Drawn: Cup ?; lower part of cranked handle adhering to body sherd, small projection with flattened end just below lower joint, red ware with black glaze, early 18th century.

VI IMPORTS

78. Large jar. Rim sherd in hard off-buff fabric evenly fired with small leached out inclusions. Top of rim slightly hollowed; deep broad horizontal internal groove 2.5 cm below top of rim with slight pulling out of fabric above and below. Thin-walled below rim. Smooth surface with small irregular pittings containing white powder. Its appearance suggests a final turning on a slow wheel allowing some irregularities to appear. Mr J G Hurst suggests a Western Mediterranean origin for this piece.

Not Drawn: Saucer, rim sherd. Hard paste Chinese porcelain. Internal light blue criss-cross band 2 mm in from rim. Second quarter 18th century,

possibly Ming type.

ROOF-FITTINGS IN POTTERY FROM ST JOHN'S, BEDFORD

by G C Dunning

Among the considerable amount of shell-filled late St Neots ware from St John's Bedford, are two exceptional pieces. These do not conform with any of the long series of domestic forms from this site, nor with other pottery of this type and fabric from sites elsewhere in Bedford.³ Neither, as yet, are parallels forthcoming for either form in the long series of St Neots ware pottery from Cambridge⁴ or elsewhere in East Anglia and the Midlands.⁵ In fabric both pots, though made of thicker ware than usual, are of hard grey ware with crushed white flakes of shell. The surfaces are smooth, almost soapy in feel, and light brown in colour with particles of the shell showing on both surfaces.

1. VENTILATOR-FINIAL

Fig 10: Ware as above. Thickness of side about 1 cm. The outside of the top is stained black, and inside is also stained black on the upper part and also at the lower end. The top is slightly domed and its edge is moulded, 16.3 cm in diameter. The side is incurved, with the profile again turning outwards at the lower part as present.

In the upper part of the side, about 4.8 cm below the summit, is a hole made before firing, with its margin burred over and smoothed on the inside. In shape the hole is an irregular oval, 2.65 cm by 2.1 cm. About one half of the circumference is present at this level, without another hole in the side, but in view of the analogies quoted below, it may be taken as certain that there was a second hole diametrically opposite to and about the same size as the one preserved.

Because of its shape, the perforation in the side, and the black staining of its surfaces, this object is identified as a finial attached to a ridge-tile. Moreover, the perforation shows that it was a functional ventilator, and the black staining of the surfaces has been noticed many times on such roof-fittings and explained as caused by deposit from the smoke escaping through the apertures in the side.

Analogies for the Bedford finial exist among two classes of roof-fittings in Southern England. First, the chimney-pots of Sussex type,⁶ discussed further below, are broadly similar in shape at the top,

though here pierced by a large central hole, and invariably these have a pair of holes in the side, at about two-thirds of the height of the chimney-pot, and secondly, ventilator-finials of the type attached to the ridge-tiles. These finials have the summit closed as on the Bedford example, and several of them have two or more holes through the side, so that they could act as ventilators.⁷ No precisely close parallels for the form of the Bedford ventilator can be quoted, but this is not surprising, since the shape and details vary considerably within the requirements of the dynamics of these structures.

The main interest of the Bedford ventilator-finial lies in the occurrence of such a structure in the Midlands, and in its relationship to the numerous roof-ventilators in pottery, of one type or another, now known from thirty or more sites in the southern counties. Taken in conjunction with the chimney-pot also found on the St John's site, the finial demonstrates that other forms of roof-fittings, both functional as ventilators and solely decorative, may be expected in the Midlands region.

In the drawing (Fig 10) the finial is illustrated in two views at right-angles, and it has been reconstructed as about 23 cm in height above the line of the ridge-tile. It may be added that attached roof-finials vary considerably in size; several from Hampshire and south Wiltshire are from 25 to 35 cm high above the tile; the record is held by a tall and slender finial from Portsmouth, which attains 41 cm high above the tile.

2. CHIMNEY-POT

Fig 11, 1. Ware as above. The thickness of the side is about 1.6 cm. The core is dark grey, with light reddish-brown monolayers on both sides and at the surface. The backing is mainly crushed shell, but there are a few stone grits. The inside is partly stained dark grey.

The profile slopes inwards from the base, and the outside surface is lightly ridged and grooved horizontally. The edge of the base is thickened and moulded on the outside, increasing the width to 2.6 cm. Round the lower part of the moulding is a sharply-defined girth groove; the inner side of the base is bevelled upwards and has a beading. The basal section is of the kind usual on chimney-pots of the Sussex type.⁸ From the diameter at the base, 21 cm, the height of the chimney-pot can be restored as about 25.5 cm.

The top would be pierced by a central hole, and there would be two holes in the side, diametrically opposite each other, at about two-thirds up the height of the pot; these structural features are shown in the drawing.

The scarcity of mediaeval chimney-pots away from the homeland of the type in Sussex, and in the peripheral counties to the south of the Thames, justifies the publication here of three others. One (Fig 11,2) was found in High Street, Bedford (in the Bedford Museum); and the second (Fig 11,3) at the cemetery at Fenny Stratford, Bucks. (on loan to the Aylesbury Museum No 453.67); and the third, kindly brought to my notice by Mr J M Steane, was found at Blakesley, Northants. (in Northampton Museum No 242).

Fig 11,2. Upper part of chimney-pot, made of grey ware with much crushed shell; both surfaces are light red. The inside shows broad rilling marks. The side is about 0.8 cm to 1 cm thick, increasing markedly inside up to the flat top, 2 to 2.3 cm wide. The outside diameter of the top is 13.6 cm, and diameter of the central hole in it is 8.4 cm. The profile of the pot is almost cylindrical, widening slightly at the lower part. Its side is decorated with vertical applied strips reaching up to the edge of the top, and indented by deep thumb-marks. The spacing allows for nine strips. Between each strip is a deeply incised groove, flat-bottomed in section, also running vertically from the top but slightly undulating. The top of the chimney-pot has a single row of stab-marks about 1 cm in depth, flat at the lower end, and so made by a blunt-ended tool. A single stab-mark is at the upper end of each strip and groove down the side of the pot.

In the shape this chimney-pot differs from the more or less conical form usual in Sussex. Cylindrical chimney-pots are, however, represented there and elsewhere; for instance, the upper parts of two found at Chichester, and a complete one from Cissbury (in the British Museum). This sub-type also occurs in Hampshire, at Winchester and Dibden, near Fawley, and at Sible Hedingham, Essex. Most of these examples are plain, but that from Cissbury has four prominent applied strips extending from the top down to the base, all heavily thumb-pressed. The upper part of this pot is closely stab-marked, and similar stab-marks are in two concentric rows on the top. Chimney-pots with similar elaborate decoration are from the pottery kiln at Binsted, near Arundel, and that from Sible Hedingham, Essex, also has thumb-

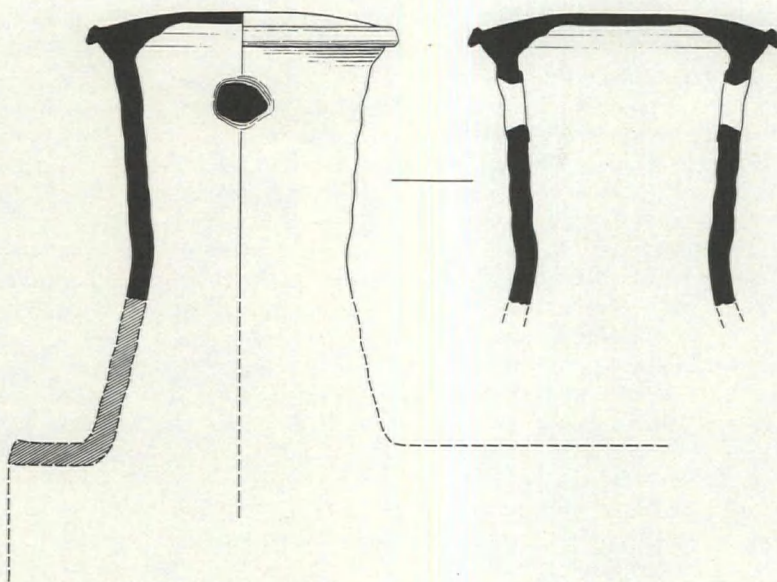
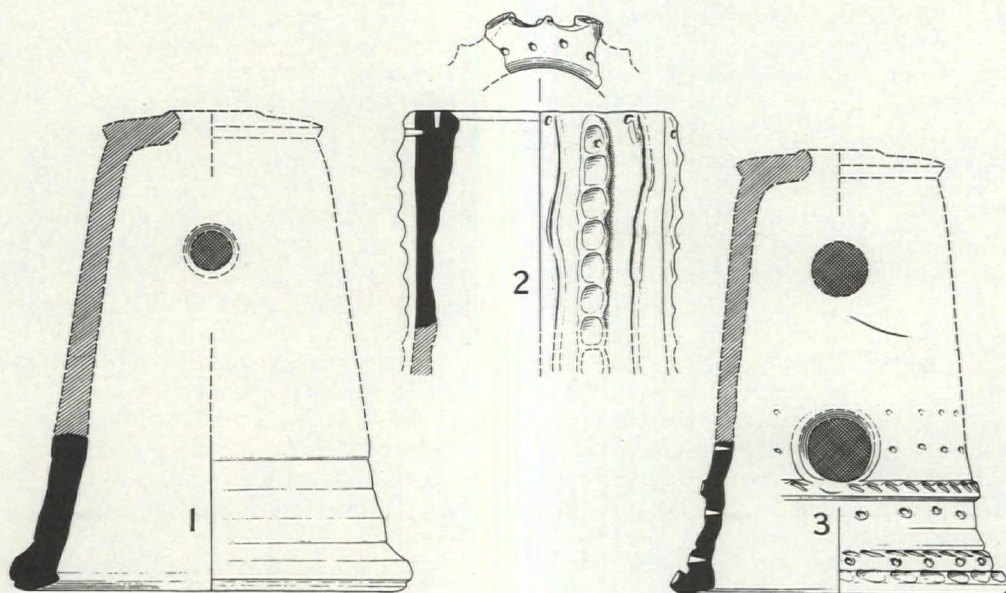


Fig 10 (above) Ventilator-finial, side view and section. St. John's, Bedford. (Scale $\frac{1}{4}$)

Fig 11 (below) Chimney pots. 1. St. John's Bedford; 2 High Street Bedford; 3 Fenny Stratford (Scale $\frac{1}{4}$)



pressed strips down the side.

The hole in the top of the Bedford chimney-pot is exceptionally large, but parallels for this feature are on pots from Bramber Castle and Pevensey Castle in Sussex, Dibden in Hampshire, and from Pleshey Castle and Sible Hedingham, Essex. For dynamical reasons because of the large hole in the top, it is likely that no holes were present in the side of the Bedford chimney-pot. Again, the absence of side holes is known elsewhere; it is certain for the Cissbury chimney-pot, and two of hour-glass shape from Pleshey Castle, Essex.

Fig 11.3. Lower part of chimney-pot, made of coarse grey ware with large flakes of crushed shell. The outside surface is light reddish-brown, with a large part dark grey nearer the base; the inside is light red. The profile slopes markedly inwards from the base, which is sharply moulded outside, and undercut on its upper side. The outer slope of the basal moulding is decorated with a row of closely-set finger-tip marks. The base is slightly bevelled on the inner side. The side of the pot for 4.8 cm above has three raised cordons, of which the topmost and lowest are angular in profile, and the middle one more rounded. The middle cordon is plain, and both the other two are decorated with sloping tool-cuts; in addition, the lowest cordon has deep conical stab-marks at intervals. The side of the pot below the topmost cordon also has a line of similar stab-marks. Moreover, the side of the pot above the cordons was also stab-marked, though only the lowermost line is present. Similar stab-marks are frequent in Sussex, sometimes covering the entire surface from top to base, so that probably the Fenny Stratford chimney-pot was profusely decorated in this way. At the height of 7.7 cm above the base the side is pierced by a large hole, irregularly circular in shape, about 3.3 cm in diameter. On both surfaces the margin of the hole is burred over and pressed against the side. From the basal diameter, 17.8 cm, the height of the chimney-pot is estimated at about 23.5 cm, as restored in the drawing.

In several respects the Fenny Stratford chimney-pot differs from the two found at Bedford, although all three are derived from the Sussex type and are to be dated 13th century, perhaps to the latter half rather than earlier. First, it is highly decorated in three techniques, namely, a wide zone of raised cordons above the base, in conjunction with incised patterns of two kinds,

tool-cuts and deep stab-marks. In the latter features it has numerous parallels on chimney-pots in Sussex, notably from Chichester, Cissbury, Saxon Down, Glynde, and Abbot's Wood, Arlington. Only three instances of raised cordons above the base can be quoted: at Tarring, Sussex, and towards the periphery of the distribution at Enborne, Berks, and Arkley, Herts. Stab-marks covering the whole surface of the chimney-pot are a regular feature in Sussex, and occur only sparingly elsewhere, as at Portchester Castle and Bentley, Hants. Secondly, the position of the hole in the side of the Fenny Stratford chimney-pot was at first puzzling, since it is only at about one-third of the height of the pot. However, on chimney pots from two sites in the south, the pottery kiln at Binstead, Sussex, and Portchester Castle, two holes are present, one vertically above the other. The Fenny Stratford pot has been restored accordingly, with another hole at about two-thirds of the height and above the larger hole nearer to the base. The rather splayed profile above the base of both the Bedford and Fenny Stratford chimney-pots has many parallels in Sussex, and also at Portchester Castle, Leatherhead, and Northolt manor-house, Middlesex.

Analysis of the features of the Bedford and Fenny Stratford chimney-pots thus shows that in all respects they have numerous and close analogies in the south, particularly in Sussex, and to a lesser extent elsewhere in the main area of the distribution of the Sussex type. The horizontal cordons on the Fenny Stratford pot are an atypical feature, known only once each in Sussex, Berkshire and Hertfordshire.

Fig 12a. Chimney-pot, 15.5 cm in height, complete except for a small part missing from the base. Grey ware with stone grits; light red on both surfaces, unglazed. The side is 1.1 to 1.2 cm thick, increasing towards the heavily moulded top, flat on the upper surface. The top, 11.7 cm in diameter, is decorated with a single row of seven large stab-marks, conical in section, which pass right through the moulding. The hole in the top is irregularly circular, about 3.4 by 3.7 cm., and appears to be an enlargement of a smaller, round hole. The side of the chimney-pot is slightly conical, with a bulge at mid-height. The base, 10.5 cm in diameter, is slightly everted and bevelled on the inner side. The side is decorated with sharply incised sloping lines which end, alternately, at the bulge and near the base. No

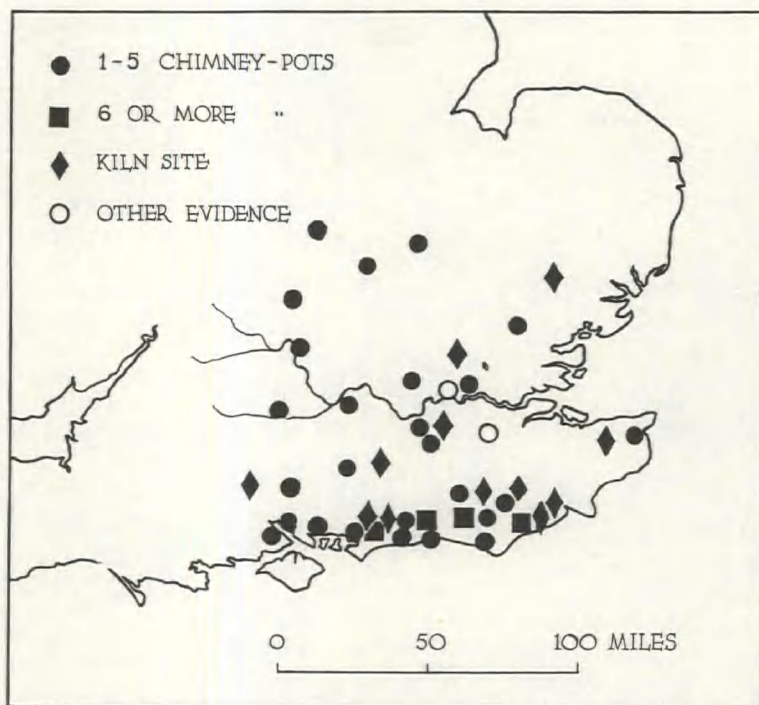
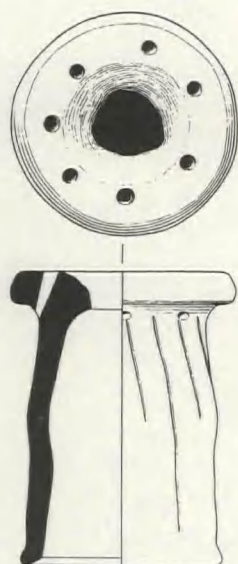


Fig 12a Chimney pot from Blakesley, near Towcester (Scale $\frac{1}{4}$)

Fig 12b Distribution map of mediaeval chimney pots.

holes are present in the side.

The Blakesley chimney-pot is remarkable in several respects. It is the smallest example known, the next in size, found at Chichester, being 18.5 cm in height. The top is massive for a chimney-pot of this size, and actually it is greater in diameter than the base. The circle of large stab-marks piercing the top has several analogies in Sussex, the closest being on a chimney-pot from Lewes. The incised lines on the side have partial analogies at Binsted and Chichester, on chimney-pots with decoration of applied finger-printed strips. It may be noted that both the incised lines and the applied strips are present on the chimney-pot from High Street, Bedford (Fig 11,2). The absence of holes through the side of the Blakesley pot appears to lack a definite parallel in the southern counties, though this may be due to the comparatively few complete chimney-pots in this region. However, holes in the side are certainly absent on the two chimney-pots found at Pleshey Castle, Essex, so that even this unusual feature has a parallel elsewhere. While, therefore, the Blakesley chimney-pot has many features showing its derivation from

the 'Sussex type', it also shows divergencies not at present known at the primary region of this type.

Since the initial publication on chimney-pots in 1961, a number of additional finds have been made, and this opportunity is taken to publish the list up to date and a distribution map (Fig 12b). The density of the find-spots in Sussex is still the dominant feature of the map, and justifies the label of 'Sussex type' for the majority of the chimney-pots as yet found in England. The chimney-pots have now been found at twelve pottery-kilns or kiln sites (as shown by wasters), of which six are situated in Sussex, four in adjacent counties south of the Thames, and the other two in counties north of the Thames. It is thus evident that the production of chimney-pots was carried on in all the regions covered by the distribution, though the source of the type and its major incidence remain in Sussex.

The additional finds confirm that the main period of the chimney-pots was throughout the 13th century. The initial date should now be extended back to the end of the 12th century, according to

evidence recently obtained by Mr Alec Down at Chichester.

As a key to the distribution map a complete list of chimney-pots follows, arranged in counties south of the Thames (primary region) and north of the Thames (secondary region). The sites new since 1961 are in *italics*.

LIST OF MEDIAEVAL CHIMNEY-POTS IN POTTERY

1. COUNTIES SOUTH OF THE THAMES

SUSSEX

Aldingbourne, Tote Copse Castle, *Sussex Arch Coll* 107 (1969) 172, fig 18, 2-3.

Arlington, Abbot's Wood. Kiln site.

Binsted, near Arundel. Pottery kiln, *Med Arch* 11 (1967) 316.

Bosham

Bramber Castle.

Chichester, East Pallant, etc.

Chichester, Orchard Street. Pottery kiln. Chichester Civic Society, Excavation Committee *Report for* 1968. 7

Cissbury.

Glynde, Saxon Down

Hamsey, near Lewes

Hastings, Bohemia. Pottery kilns, *Sussex Arch Coll* 12 (1860) 268.

Lewes

Pevensey Castle

Pevensey, quays, *Med Arch* 11 (1967) 299-31, fig 66.

Ringmer. Pottery kilns.

Rye. Pottery kilns.

Seaford.

Tarring, *Sussex Arch Coll* 102 (1964) 25, fig 6.22-23.

KENT

Canterbury, Darwin College, University of Kent. Pottery kiln, *Kent Arch Rev* 19 (1970) 26 and 21 (1970) 11. Information from Mr G A Crump. Stonar, near Sandwich.

SURREY

Ashtead. Kiln site, *P Leatherhead Local Hist Soc* 3 (1968) 59, fig left.

Leatherhead, *P Leatherhead Local Hist Soc* 2 (1961) 130

Packesham, manor-house.

HAMPSHIRE

Bentley. Pottery kiln.

Binsted.

Dibden, near Fawley

Portchester Castle

Southampton. Information from Dr Colin Platt. Winchester.

WILTSHIRE

Laverstock. Pottery kilns, *Archaeologia* 102 (1969) 142, fig 25. 202.

2. COUNTIES NORTH OF THE THAMES

BEDFORDSHIRE

Bedford, St John's site and High Street.

BERKSHIRE

Enborne.

Wargrave, Borough Farm.

BUCKINGHAMSHIRE

Fenny Stratford.

ESSEX

Pleshey Castle, P A Rahtz, *Pleshey Castle, Essex: First Interim Report* (1960) 31, fig 18. Since this publication the lower part of the same chimney-pot has been found, giving the complete profile of hour-glass shape, and the greater part of a smaller chimney-pot of the same type. Information from Mr Rahtz.

Sible Hedingham, Foxborough Hill. Pottery kiln. Information from Mrs J E Sellers.

HERTFORDSHIRE

Arkley. Kiln site, D F Renn *Potters and Kilns in Mediaeval Hertfordshire* (1964) 9.

LONDON

Watling Street

MIDDLESEX

Northolt, manor-house. Information from Mr J G Hurst.

NORTHAMPTONSHIRE

Blakesley, near Towcester.

OXFORDSHIRE

Deddington Castle.

Oxford

A PIECE OF TILE WITH RELIEF DECORATION FROM BEDFORD

by Elizabeth S Eames (fig 13a)

One broken, roughly triangular piece from the edge of a tile; 93 x 70 x 35 mm thick. The body is earthenware, mainly reduced and grey in colour, but with a thin skin of oxidised fabric on the unglazed surfaces. The top is covered with lead glaze applied directly to the body. The glaze contains some copper and looks a dull speckled green. There are no scooped keys or stabbed holes in the base. The remaining piece of the side is vertical and irregular and shows marks of sand. These features suggest that it was moulded and not cut off to form a bevelled edge as was the normal practice.

The tile is decorated with a pattern in relief on two planes only, flat at the top and bottom, and without any modelling to provide detail. The remaining piece shows part of a scroll with large solid looking terminals, some of which are probably parts of fleur-de-lys. A border along the edge of the tile consists of two raised lines, the inner about 5 mm and the outer about 10 mm wide.

This tile is most probably of thirteenth century date. Large tiles with relief decoration were made at that time.⁹ I cannot at present find an exact parallel to the scroll with which it is decorated but it is closely related to a scroll on a border tile from North Berwick, East Lothian,¹⁰ and the style of decoration is similar to that on other tiles from North Berwick, East Lothian,¹⁰ and the style Priory in Derbyshire and Revesby Abbey in Lincolnshire.¹¹ The uncut, vertical, sides, and the unusual thickness of the piece of tile from Bedford resemble the form of the sides and the thickness of the tiles from those sites and one may suppose that they are related by other factors besides their common style of decoration.¹²

A kiln for the manufacture of this type of tile has been found at North Berwick,¹³ and such tiles were found with other types in a kiln on the site of Repton Priory, in Derbyshire.¹⁴ It is generally considered that in the thirteenth century it was usual for tile makers to move from site to site rather than to establish a more permanent centre and to distribute their products from one place. It is possible that this piece of tile from Bedford marks a hitherto unknown stage in the southward migration of a band of tile makers, who may have begun to work at North Berwick and

may eventually have settled in East Anglia. At Butley Priory in Suffolk¹⁵ there are smaller tiles decorated in relief designs closely related to those at North Berwick and it is possible that a more centralised industry was established in East Anglia in the earlier part of the fourteenth century. It is known that a flourishing relief tile industry was established at Bawsey, King's Lynn, in the latter part of the fourteenth century.¹⁶

Large tiles decorated in relief are known from other sites widely scattered over England and Wales but most of them have no apparent connection with the series mentioned here. So far too few examples of any related types are known to provide a really clear picture of their origins and distribution.

[The current excavations at Elstow Abbey, about a mile to the south of this site, have produced two fragments of relief decorated tile in a context that may be thirteenth century and certainly must predate the middle of the fourteenth century. One of these resembles the fragment discussed above in most details. (D B)]

CLAY PIPES

by Adrian Oswald (fig 14)

Eighteen groups were submitted of which four had some stratigraphic significance. The numbers involved were not sufficient in the stratified groups to permit of useful stembore dating. The other groups (excluding a stem and bowl of mid 18th century date from the topsoil) numbered 157 fragments. These suggested a date of 1670–1700 on Harrington's formula and 1693 on Binford's.¹⁷ The bowls typologically would seem to be nearer the earlier than the later date. The sample is small and probably the typology of the bowls is a more reliable dating factor than the stem bore tests.

The stratified groups have bowl shapes of c. 1670–90 and one stem mark.

Pit J has one bowl (*No 1*) poorly made of a white clay with badly cut off foot. In shape it is near Parsons type 9¹⁸ c. 1680–1720 with a probability towards the earlier date.

Pit M/Q has a similar bowl with a better finish (*No 2*). It also has a bowl of London type 12¹⁹ with a round base. The type occurs in Lincolnshire at Kettleby Thorpe c. 1670 and at Badby in Northants. (*No 3*). It is made of pinkish clay as also a stem of the same group. Pipes of pinkish brown clay c. 1640–70 occur at Stamford. The

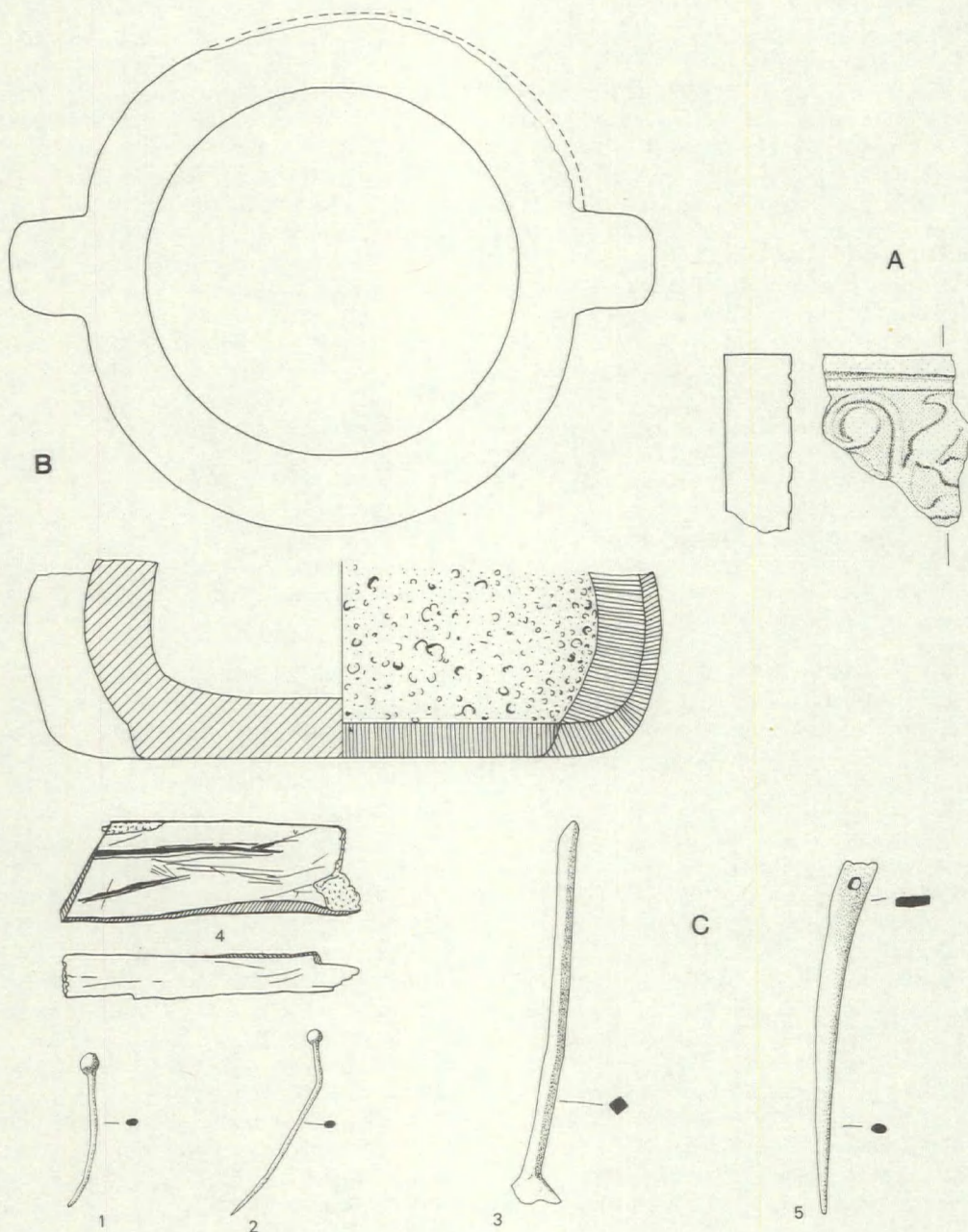


Fig 13a Tile with relief decoration. (Scale $\frac{1}{4}$) b Mortar. (Scale $\frac{1}{4}$) c Small finds of stone, metal and bone. (Scale $\frac{1}{2}$)

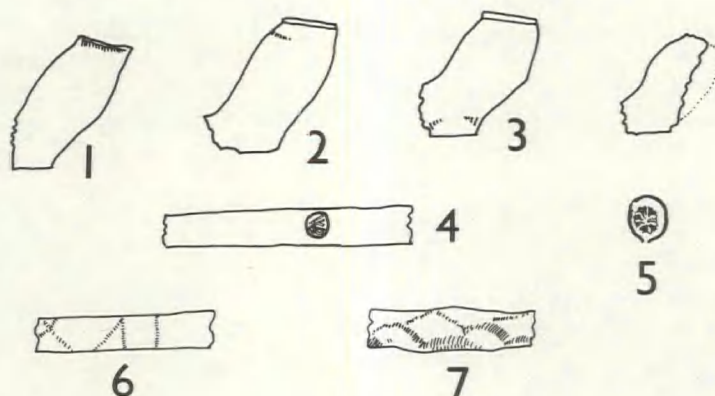


Fig 14 Clay pipes: (Scale $\frac{1}{2}$)

1 Pit J. Type Parsons 9. c. 1680-1720; 2 Pit M/Q 1; 3 Pit M/Q. Type London 12. c. 1660-80; 4 Pit M/Q. Stem Mark WB in relief; 5 Trench 8 Layer 5. Type London 5. c. 1620-40; 6 Trench 5 Layer 3. Rouletted stem: late 17th century; 7 Trench 4 Layer 4. Pinched Stem. c. 1700.

stem mark WB (*No* 4) is very similar in style to a mark WP at Stoney Stratford. It is probably the mark of William Brown of Bedford who is recorded in the parish registers of St Cuthbert. 1720 is a date that might suit the mark. Stem marks of this type occur from c. 1690-1750.

Pit L has one stem which calls for no comment.

Among the unstratified groups is a marked bowl (*No* 5). Three similar pipes are in Guildhall Museum, London, two in the Bousfield Collection, British Museum, and one from the Thames at Battersea (Atkinson Collection). There are two stems, one with roulette decoration and one pinched in the Dutch manner, compare Plymouth Nos 35 and 36.²⁰

Much of the collection seems to be local in style (the pink clay fragments in particular). The shapes seem to be intermediate in type between London and Lincolnshire. There are no highly polished pipes.

TABLE 3

Stem Bore Test on unstratified fragments

9/64	8/64	7/64	6/64	5/64	Nos.
3	15	53	72	14	

Suggested date on Harrington analysis: 1670-1700
on Binford formula: 1693

STONE

based on geological notes by Dr Brian Daley, Chemistry and Geology Department, Portsmouth Polytechnic.

Mortar, complete base and part of side and lugs. Trench 4 Layer 6. (Fig 13b). A predominantly bioclastic limestone, probably obtained from the locally exposed Middle Jurassic rocks. The base is circular, about 22 cm in diameter and smooth apart from natural pitting or other irregular damage. The sides of the mortar survive up to 10.8 cm at the highest point. It is circular with a maximum diameter of 28 cm at a height of 7 cm from the base. It has two opposed lugs square in plan but with chamfered corners, protruding 4 cm from the external circumference. They are solid and run the full length of the surviving sides, being rounded at the bottom where they come down to the main base. The chamfering line on the lugs connects with the top of the base, where the curving side becomes straighter for its last 2 cms to the basal angle. Originally the mortar may have had one or two spouts at rim level. The external sides and handles are smoothed, but rather more pitted than the base. No obvious tooling is visible. The inside of the mortar shows much wear, with the centre slightly raised above the level of the more worn perimeter. It did not

come from a clearly stratified context and therefore little can be said about its date in the mediaeval period.

Whetstone, (Fig 13c4) Pit C Grey slate, a lithological type not found locally as bedrock, but which outcrops widely in North Wales and other western localities. Whilst it is possible that the slate was obtained directly from such areas it seems more likely to have been obtained locally from fragments found in the Drift, distributed by glaciers, during the Quaternary Ice Age.

Whetstone: Flat and rectangular in shape with grooves worn in main surfaces; considerable wear on sides; ends broken. Pit J.

METAL (Fig 13c)

Bronze token. Charles I Rose farthing token, minted at Bristol, after 1635 and before 1644. Information from Miss M Archibald. Not drawn.

Bronze pin with point missing. Circular section and rounded head. Pit AA (No. 1).

Bronze pin, about 5.5 cm long. Circular section and rounded head. Trench 2, Layer 7. (No 2)

Bronze spoon, handle and small part of bowl. Handle is of rectangular section, with a diagonally cut end, and is continuous with the start of the bowl, which is thin in section and angled to the handle. Trench 4, Layer 4. (No 3)

A group of bronze objects from Pit J, undergoing conservation at the time of writing, will be the subject of a short note in a forthcoming volume of this journal.

CARVED BONE (Fig 13c) (No 5)

Bone needle, 9.6 cm long, with point at one end. Head flatter and broader, with near circular hole cut in it. Trench 6, layer 19.

THE ANIMAL BONES

by Annie Grant

The pits exposed by the excavation of the St John's site at Bedford contained animal bones which are assumed to be domestic refuse. The bones contained in the undisturbed layers at the bottom of the pits were examined and are the basis of this report. They are dated to the period c. 1050 to c. 1200 from their pottery associations.

The proportions of species represented were calculated by counting the numbers of leg and jaw bones for each species. This was to try to avoid the distortion due to factors such as the presence

of horn cores in only cattle, sheep and goat, and the greater fragmentation of the vertebrae, ribs and skulls of the larger animals as compared with the same bones in the smaller animals. The results are shown in Table 4.

TABLE 4

Species	No	%
Cattle	184	39.7
Sheep*	179	38.8
Pig	68	14.7
Horse	6	1.3
Dog	3	0.6
Bird	23	4.9
Total	463	100.0

* Because of the difficulty in distinguishing between the closely related species of sheep and goat, especially from small fragments, the bones of both these animals were treated together. Where 'sheep' is used in this report, it should be taken to mean 'sheep and/or goat'.

The proportions of the main domestic animals were adjusted in order to take account of the differences in meat yield per animal. The carcass weights used are those given by D Phillipson *et al* (1965)—Cattle: 900 lb.; sheep; 125 lb.; pig: 200 lb. The results are shown in Table 5.

TABLE 5

Species	%	% after adjustment for meat yield
Cattle	42.7	82.2
Sheep	41.5	11.1
Pig	15.8	6.7

The figures indicate that beef formed the main bulk of the meat represented by these animal bones, followed by mutton then pork. The bird bones range in size from quite small birds to chicken size birds. At least some of these bones would probably be the remains of meals. One might assume that the horse bones and especially the dog bones do not represent a regular food source, but that they represent animals kept for riding and traction and as household pets.

What is perhaps surprising is the lack of any fish or deer bones. Both animals would almost certainly have been present in the locality. The site is very close to the River Ouse, which is certainly fished today, and there is no reason to assume that deer would not have been found in the forested

areas around Bedford. It is possible that since the area excavated was relatively small, bones of these species may have only by chance been absent from the particular pits excavated. Alternatively, venison and fish may not have been eaten by the people whose domestic refuse we are considering. Venison was a food commonly eaten by only the rich at this period. Fish bones are small and fragile and prone to decay and this might also account for their absence.

The percentages of some of the bones for each of the main species were also calculated. The results are shown in Table 6. In the main meat bones of the legs the proportions of different bones are similar for all three animals, with in each case more fore-limb than hind-limb bones. In all cases the meat of the tibia seems to have been preferred to that of the femur, while in the case of cattle and sheep both humerus and radius are well represented. In sheep, the scapula is also well represented, while in pig the humerus is the most common leg bone. In the case of the cattle bones the large number of horn core fragments is notable. This is not a meat bone, and may indicate the presence of some local or home industry using horn as a raw material.

The large number of skull fragments for cattle and pig contrasts with the small number for sheep. These figures should not be compared directly with the percentages of the other bones, because of the thin, friable nature of the bone of the skull. Another notable fact is the large number of pig and of sheep jaw bones even allowing for the fact that there are four per animal. The jaw bone yields very little meat, so it is difficult to account for their relatively large numbers. Because the sample is small, especially in the case of pig, it is difficult to be too dogmatic in one's conclusions about butchery techniques. What does seem indicated is that since some bones are very much more numerous than others, joints of meat rather than whole carcasses were generally bought and used. It is assumed that since this is a town site, the meat was bought in from farms outside the town, rather than reared by the townspeople themselves.

Evidence of chop marks is slight, partly because it is not always possible to be sure whether a bone has been chopped, or merely broken at a later date. However, some obvious chop marks were found on ribs, radii, tibiae and vertebrae: One cattle humerus was split down the centre, perhaps

TABLE 6

Bone	CATTLE			SHEEP			PIG		
	No.	%		No.	%		No	%	
Horn core	52	16.3		1	0.5		—	—	
Skull	83	26.0		11	5.8		34	33.3	
Jaw	18	5.6		32	16.8		25	24.3	
Scapula	12	3.8		23	12.0		4	4.0	
Humerus	29	9.1		16	8.4		9	8.8	
Radius	24	7.5	83	24	12.6	40.8	4	4.0	24.6
Ulna	9	2.8		6	3.1		6	5.8	
Metacarpal	9	2.8		9	4.7		2	2.0	
Pelvis	7	2.2		6	3.1		3	3.0	
Femur	7	2.2		16	8.4		1	1.0	
Tibia	31	9.9	52	40	20.9	35.0	8	7.8	13.8
Metatarsal	7	2.2		5	2.6		2	2.0	
Calcaneum	8	2.5		1	0.5		—	—	
Astragalus	8	2.5		1	0.5		1	1.0	
Phalange 1	10	3.1		—	—		2	2.0	
2	1	0.3		—	—		1	1.0	
3	4	1.2		—	—		—	—	
Totals	319			191			102		

for marrow, and the top of one horn core was cut off.

In one pit were found two horse bones, a radius and a metatarsal, and a cattle radius. On all these bones, one side of the bone had been rubbed down flat and smooth, and the epiphyses of the radii had been knocked off. There were also striations running parallel to the length of the bone, indicating that the bones had been rubbed on something. The bones could have been used in some process such as the rubbing down of leather, or they could have been used as skates. There are several examples of bones that have been rubbed down in this way for use as skates (as in the Science Museum, London), and I believe this custom still persists in some country areas.

The bones and teeth were also examined for evidence of age at death, using tooth eruption and bone fusion ages in accordance with Silver (1969). Where several alternatives are given for the ages of tooth eruption, those for ancient cattle rather than for modern improved breeds were used. Only a small percentage of bones excavated showed any ageing characteristics. The results are shown in Table 7. What seems indicated by these results is that the majority of cattle were killed when they were between two and four years of age, while sheep and pigs were killed off steadily from under two years to over three or four years. The danger in reading too much into these results lies in the distortion of the picture that might lie behind the 'Over 2-2½' and the 'Under 4' and 'Under 3' groups.

TABLE 7

Cattle	No	%
Under 2-2½	2	7.1
Over 2-2½	13	46.4
Under 4	11	39.3
Over 4	2	7.1
	28	
Pig	No	%
Under 2-2½	5	29.4
Over 2-2½	4	23.5
Under 3	4	23.5
Over 3	4	23.5
	17	
Sheep	No	%
Under 2-2½	9	23.7
Over 2-2½	10	26.3
Under 4	9	23.7
Over 4	10	26.3
	38	

The results of an analysis of such a small group of bones, covering as they do a 150 year period cannot hope to reveal any very precise information. The value of such a study would lie in its comparison with other sites in the same area and/or of similar date.

Acknowledgements

The work for this report was undertaken while the author was a student at Newnham College, Cambridge. Grateful thanks are due to Mr E S Higgs and Mr D Allen, and to Miss S Guzder, a fellow student who helped in the identification of the bones.

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Silver I A, 1969, 'The Ageing of Domestic Animals', in E S Higgs and D R Brothwell, *Science in Archaeology* (1969) 283-302.

LATE SAXON BEDFORD

by David Hill (fig 1)

The paper by David Baker in this journal marks the beginnings of scientific excavation in Bedford, though considerable information had been gained from the tireless fieldwork of F W Kuhlicke, without whose generous co-operation this note could not have been written.²¹ And this may perhaps be the moment to re-examine some problems of the origin of the town in the light of developments elsewhere.

Following its defeat by the West Saxons in 878, the Danish Army under Guthrum-Athelstan occupied East Anglia. A treaty defined the frontier between the new Kingdom and the lands dependent on Alfred the Great as "along the Lea to its source, then in a straight line to Bedford (*Bedan-forda*) then up the Ouse to the Watling Street."²² The mention of Bedford does not necessarily imply more than a well known ford but the Ipswich Ware sherd (No 13 on Fig 1), the carved stone of possible early date re-used in the tower of St Peter, together with what weight can be given to the provenances of the coins of Archbishop Ethelheard²³ would seem to imply a settlement on at least a minor scale. It is noteworthy that the frontier is drawn in such a way that the Lea and the Upper Ouse are left open for navigation by both parties. The natural

trade entry to at least a part of the Danelaw, regulated by the same document, would be through Bedford.

The frontier was not respected for long and the Danish Settlement spread into north Buckinghamshire and southern Bedfordshire.²⁴ For a quarter of a century Bedford was the centre for a Danish army, the present county evolving from the lands occupied by the people looking for leadership and security to Bedford.²⁵

When Alfred's son, Edward the Elder, King of the West Saxons, embarked on his campaign of conquest of the Danelaw he consolidated his gains with fortified garrisoned *burhs*. As a result of the construction of the two *burhs* at Buckingham, "Earl Thurcetel came and accepted him as his lord, and so did all the earls and the principal men who belonged to Bedford."²⁶

The annal for the following year, 915, is central to any discussion of Late Saxon Bedford. "In this year King Edward went with his army to Bedford, before Martinmas, and obtained the borough (*burh*) and almost all the townsfolk (*burgware*) who dwelt there before, submitted to him." And he stayed there four weeks, and before he went away ordered the borough on the South side of the river to be built (*atimbran*).²⁷

This clearly states that there was a pre-existing Danish fortification or *burh* with a population, and the annal for the previous year makes it clear that since the submission of the *burh* and people came without a direct attack, the result of Edward's visit was not large scale fighting. The length of time that the king of the West Saxons stayed at Bedford would seem important. At Buckingham he stayed four weeks and built two *burhs*; at Bedford he also stayed four weeks. The Danes of the area had already submitted, so why was the King and, more importantly, his army, in the *burh* for the four weeks? It would seem probable that the army was re-building the walls, laying out and building the town and occupying it. It is difficult to surmise whether the garrison was West Saxon or, as at Nottingham in 918 a mixture of Danes and Saxons. All the elements of this process can be clearly seen in the Chronicle accounts of the foundation of the string of *burhs* upon which the re-conquest of the Danelaw hinged.

When discussing what this would mean in terms of the topography of Bedford it would be best to start with the established evidence. It has long

been recognised that the "borough on the south side of the river" is that area of Bedford south of the Ouse contained within the artificial watercourse known as the King's Ditch. The name and purpose of this ditch is closely paralleled in Cambridge, and presumably pre-Conquest ditches with the same name are known from Hereford and Tamworth. Within this ditch one might expect the earth bank and palisade clearly shown by Kuhlicke Map 2.²⁸ The purpose of this southern earthwork should not however be misunderstood; it was not designed primarily to control the northern, Danish, *burh*. It would have been a curious tactic to keep the river between the two *burhs* and thus add an additional defence to the Danish *burh*; to control the northern *burh* it would have been wise to expel the alien element of the population as King Athelstan did at Exeter²⁹ or to adopt the Norman tactic of placing an enclave in one corner of the town.

The main purpose of the southern work was to provide a bridgehead or flank work to a fortified bridge blocking the Ouse at this point to Danish attacks from Huntingdon or Cambridge. The concept may have been borrowed from Frankish parallels or may be an independent Saxon answer to a common problem. Certainly there were several double *burhs* closing the rivers in this period; Buckingham, Hertford, Nottingham and Stamford are all recorded in the *Chronicle*. To this we might add London,³⁰ Cambridge, Wallingford³¹ and the temporary *burhs* on the Lea built to bottle up a Danish fleet in the Lea during their raid of 895; King Alfred "rode along the river and examined where it could be obstructed, so that they could not bring their ships out" but the work did not need completion, the Danes saw the situation, abandoned their boats and fled.³²

The use of a bridgehead where the bridge may be of secondary importance is to be seen at Lyng, Somerset, and perhaps at Hereford on the river Wye where the Rowe ditches enclose a southern earthwork.³³ Here it may be the Bridgework which is important but the site is far up the river Wye.

It is surprising that the minor *burh* of any pair, where they can be recognised, should be so large; at both Bedford and at Hereford the area is considerable. Southwark, the southern end of the Bridge at London, was a town in its own right, but it is the only other place apart from Bedford where permanent settlement in the suburb took

place in early mediaeval times.

Assuming then that Late Saxon Bedford has three main elements, the southern suburb, defined by the King's Ditch, the bridge and the northern *burh*, there remains a problem of interpretation over the last of these.

There are two lines of enquiry here perhaps that may offer us some insight to the topography of the main *burh* at Bedford; one is the location of the known Saxon and Saxo-Norman finds, plotted on Fig 1; the other, and more hopeful line, is the comparison of it with the other sites of Saxon England. Later evidence would lead us to believe the northern settlement was the major site, it must have been walled and contained an area equal to or greater than the southern *burh*. The scatter of finds shows the areas of occupation and these are important, although it must be realised that the Saxo-Norman pottery reflects a wide date-range, and there is no reason why, like Lewes, Winchester and Oxford, the town might not have spilled beyond its walls before the close of the period. It is also possible that the deposit of waste material outside the walls can distort the picture.

It would seem however that the ends of the wall of the southern *burh* must to some degree reflect the ends of the wall on the north of the river. It is also a feature of Norman castle building within towns that the castle is sited either in the corner of a town, or athwart the walls. This allowed the interior to be dominated and the inhabitants would have had no fortified line in the heart of the town to keep the Normans out; also it would have allowed free access to the countryside for the garrison.

Finally, the position of the pre-conquest churches is important. The church of St Peter's is firmly dated³⁴ with the period 950–1100. It must therefore have taken some account of the position of the *burh* wall. It may of course, represent a suburban church, but any line of wall near to the tower would be overlooked. The alternatives would seem to be for the church to be within the wall, or to form a strong point and additional strengthening to the wall by placing its tower and stone walls as a bastion or a flanking guard to the gate. There are many examples of the construction of Saxon churches in such a position; well-known are Wareham, Wallingford and Cricklade.

It is tempting to use the placenames within Bedford to bolster a tenuous argument but the

use of 'bury' names inside towns is a complex problem and usually are taken to represent town houses with their own fence or stockade, such as 'Erlesbyri' Exeter.³⁵

It is possible then to draw any number of lines around Bedford and call these the line of fortification, but the general area enclosed is clear. A line from the east of the Castle area curving round to pass close to St Peter's Church to the area of the junction of the Saffron Ditch (No 14 on Fig 1) would fit all the requirements. Detailed excavation and criticism can alter the particular but not the general implications of this fortification.

It is clear that the earliest known street plan, which can only be carried back to the thirteenth century by documentary means³⁶ but appears to have the castle as an insertion into it, is a regular, recti-linear one. These have recently been discussed in their relation to Late Saxon Towns³⁷, where it is suggested that these are the result of a planned laying out of the town, in keeping with the functions of defence, trade and settlement which were imposed on them. It is a feature to be found only up to *circa* 930. It would seem in agreement with this view to date the regular pattern of Bedford, together with its walls and bridge to the four weeks that Edward the Elder spent at Bedford.

EARLY MEDIAEVAL FINDS FROM BEDFORD FOR WHICH THE SITE IS KNOWN

Saxo-Norman Pottery

Site	1	High Street, Barclays Bank
	2	High Street, Westminster Bank
	3	High Street, Leonards
	4	High Street, The Silver Grill
	5	High Street, Rose's Extension 1936
	6	High Street, Taylor Brawn Ltd.
	7	Silver Street, Meakers Cellar
	8	Silver Street, Old Jail Site
	9	St Peter's Street, The Old House; Royal Insurance Company; Roger's Porter shop; Granada cinema.
	10	St Mary Street

Sites 1-10 are partially summarised *Beds Arch J* 4 (1969) 84; partial publication of this material may be found *Beds Arch J* 3 (1966) 19-21; 4 (1969) 17-25. It is hoped to publish the more significant of the remaining St Neots ware material from Bedford in a future issue of *Beds Arch J*.

- 11 St John's and Cauldwell Street Excavations, see above.

Other Sites

- 12 Spindle whorl and threadpicker from road opposite St John's Hospital site found circa 1935. Information from F W Kuhlicke
- 13 Ipswich Ware sherd, Horne Lane, *Beds Arch J* 3 (1966) 58
- 14 2 Bone combs, off Horne Lane found in 1887, 10 feet from the surface in a thick deposit of mud, datable to c. 900-1100, Information from F W Kuhlicke.

St Peter's Church; Axial Tower and chancel datable to 950-1100 A.D., H M and Joan Taylor *Anglo-Saxon Architecture* (1965) 58; *Beds Arch J* 3 (1966) 8-9 and fig 3
St Mary's Church; South Transept, possibly Saxo-Norman, *VCH Beds* 1 (1904) 186; *Beds Arch J* 3 (1966) 9-11 and fig 5.

It is unclear if the present Church of St Paul's occupies its pre-Conquest position.

Acknowledgements

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Other acknowledgements are made in the main report or with specialist contributions. I am particularly grateful for the encouragement and help received from Messrs K J Barton, J G Hurst and Dr G C Dunning.

FOOTNOTES

- 1 Most recently in: D H Kennett: St Neots Ware from Bedford: Jugs and Bowls. *Beds Arch J* 4 (1969) 17-25
- 2 Information from Bedfordshire County Record Office
- 3 *Beds Arch J* 4 (1969), 17-25
- 4 *P Camb Ant Soc* 58 (1965), 74-137
- 5 *P Camb Ant Soc* 49 (1956), 43-70; Eaton Socon Castle, Beds., *P C A S* 58 (1965), 38-73; Oakham Castle, Rutland, *T Leics A S* 34 (1958), 17-38; Humberstone, Leicester, *T Leics A S* 35 (1959), 1-32
- 6 G C Dunning, 'Mediaeval Chimney-pots,' in E M Jope (ed) *Studies in Building History* (1961), 78-93.
- 7 G C Dunning, 'A Mediaeval pottery Roof-Finial found at Portsmouth,' *P Hants F C* 25 (1969) 95-101.
- 8 G C Dunning, 1961, figs 2-3 and 5-6
- 9 J B Ward Perkins, 'English Mediaeval Embossed Tiles' *Arch J* 94 (1937) 128 ff.
- 10 J S Richardson, 'A Thirteenth-century Tile Kiln at North Berwick, East Lothian, and Scottish Mediaeval Ornamented Floor Tiles' *P S A Scot* 63 (1928-9), fig 18, 5.
- 11 J B Ward Perkins, 1937, and Elizabeth S Eames *Mediaeval Tiles, A Handbook* (British Museum 1968) 25-6 and pl XI.
- 12 The presence of tiles of this type from North Berwick, Repton and Revesby and of related tiles from Butley and St Albans in the British Museum has enabled the writer to compare size, fabric, glaze and other technical details.
- 13 Richardson (1928-29) 281-4.
- 14 Ward Perkins (1937) 144 and fig 7, 4.
- 15 J N L Myres 'Butley Priory, Suffolk' *Arch J* 90 (1933) 265-275, fig 5, and pls. VIII and IX
- 16 Elizabeth S Eames, 'The Products of a Mediaeval Tile Kiln at Bawsey, King's Lynn' *Antiqs J* 35 (1955) 162-181
- 17 I C Walker, 'Statistical Methods for Dating Clay Pipe Fragments,' *Post Med Arch* 1 (1967) 90-101
- 18 J E Parsons 'The Archaeology of the Clay Tobacco-Pipe in North-East England,' *Arch Ael* 43 (1964) 231-254.
- 19 D Atkinson and A Oswald 'London Clay Tobacco Pipes' *J B A A* 32 (1969) Fig 1
- 20 A Oswald and J Barber 'Marked Clay Tobacco Pipes from Plymouth, Devon,' *Post Med Arch* 3 (1969) 122-142.
- 21 D Hill is also indebted to Mr D B Baker and Miss P L Bell, Mr R Carr and Miss J Hassell for the assistance and encouragement he has received on this note.
- 22 D Whitelock *English Historical Documents*, 1 (1955) 380
- 23 E Hawkins *Silver Coins of England* (1887) 104. *Numismatic Chronicle* (1865) pl XIV 102
- 24 F M Stenton *Anglo-Saxon England* (1947) 258
- 25 *Ibid.* 334
- 26 Anglo-Saxon Chronicle *sub anno* 914, translated in Whitelock *E H D I* 195

- 27 Anglo-Saxon Chronicle *sub anno* 918, *recte* 915;
idem
- 28 F W Kuhlicke 'The First Bedford' in *Bedford, A Survey* (1950) 3-7
- 29 Whitelock *E H D I* 386
- 30 The bridge is not mentioned specifically until 963 x 975 (Whitelock *E H D I* 519). But the form of the name Southwark, mentioned c. 919 in the Burghal Hidage, together with the action of the Danes who turned aside up the river Lea before reaching London in 895 (*E H D I*) would lead us to believe the bridge was constructed at least by Alfred.
- 31 I am indebted to Mr Nicholas Brooks for this observation.
- 32 Anglo-Saxon Chronicle *sub anno* 895; *E H D I* 188.
- 33 M D Lobel *Historic Towns* (1969) plan of Hereford 'Anglo-Saxon Burh and The Site'.
- 34 H M Taylor and Joan Taylor *Anglo-Saxon Architecture* (1965) 58; *Beds Arch J* 3 (1966) 8-9 and fig 3
- 35 *The Placenames of Devonshire* *supra* 'Exeter Street Names'.
- 36 *VCH Beds* 3 (1912) 1-33
- 37 M Biddle and D Hill *The Late Saxon Planned Town Antiqs J* (forthcoming)

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The Burial Ground at Chicksands Priory, Bedfordshire

JAMES DYER

SUMMARY

Due east of Chicksands Priory lay a garden with gravel path and flower bed on its eastern edge. Beyond this a strong brick wall bounded a graveyard 120 ft wide, containing the remains of monks and a child. The eastern side of this graveyard was marked by a ditch, and beyond it again a dump contained domestic refuse including pottery and keys of 12th to 17th century date.

CHICKSANDS PRIORY is situated on the Lower Greensand ridge of central Bedfordshire (TL/122393). It was founded in 1150 by Pain de Beauchamp and his wife Countess Roese, for the only English monastic order, the Gilbertines. Since this order was completely confined to England, it was totally destroyed at the Dissolution. Chicksands was a double monastery 'in which a society of regular priests, ministered to the spiritual needs of regular women.' Early in the 13th century its numbers were probably at their highest, with some 120 nuns and 55 brothers. A small Gilbertine Priory for both men and women was also built near St Mary's church at Hitchin, Hertfordshire. (TL/185289). It was known as the *New Bigging* (today the Biggin), but its date and founder are unknown.

The early history of both establishments is rather sparse and for Chicksands is mainly concerned with the Countess Roese and the Beauchamp family, and with financial difficulties which by the middle of the 13th century resulted in the reduction of numbers by fifty nuns and ten lay brothers. The difficulties continued into the next century, to be followed by the Black Death, which had a disastrous effect on the order, although what happened at Chicksands and the Biggin is not recorded. The affairs of the Bedfordshire Gilbertines improved towards the end of the 15th century, only to be brought to a conclusion on 22nd October, 1538, when the Priory was surrendered to Dr Richard Layton, one of Cromwell's

four chief commissioners. (For background information on the Gilbertines, and Chicksands in particular, see R Graham *St Gilbert of Sempringham* (1901) and Sister Elspeth in *V.C.H. Beds.* 1 (1904) 390-393).

Chicksands today is largely early 18th century in character, the work of Ware and James Wyatt. Nothing is visible of the initial foundation, but work of the 13th century survives in the shape of a doorway which led north from the cloister into the church, and the western side of the vaulted undercroft which ran round the cloister. The later house is arranged around this cloister. The east, west and south walls are of considerable thickness and are probably also of 13th century date.

The 25 inch Ordnance Survey map shows the traditional site of the Priory burial ground, as lying 47 yards east of the present buildings. At the beginning of June 1969 a pipe line was mechanically cut east-west along the south side of the Priory buildings and extended 350 yards to the east. In the process the graveyard was cut through and numerous pieces of human bone and sherds of pottery were thrown to the surface. The writer, with the permission of the Commanding Officer of R.A.F. Chicksands and on behalf of the Ministry of Public Building and Works, was called to the site, and this report is the result of his visit.

The position of the pipeline is shown on the accompanying map, (fig. 1). It ran parallel to the south front of the Priory and 30 ft south of it. At a distance of 130 ft east of the house it ran under an 18th century ha-ha wall, 17 ft south of the southern stone gate pillar. At this point it was 19 ft south of the metalled road surface. It ran in a straight line for 100 ft and at that point it was 14 ft south of the road. It then continued in an easterly direction, south of the road and parallel to it, until it ran into modern made-up ground, some 200 yards east of the Priory.

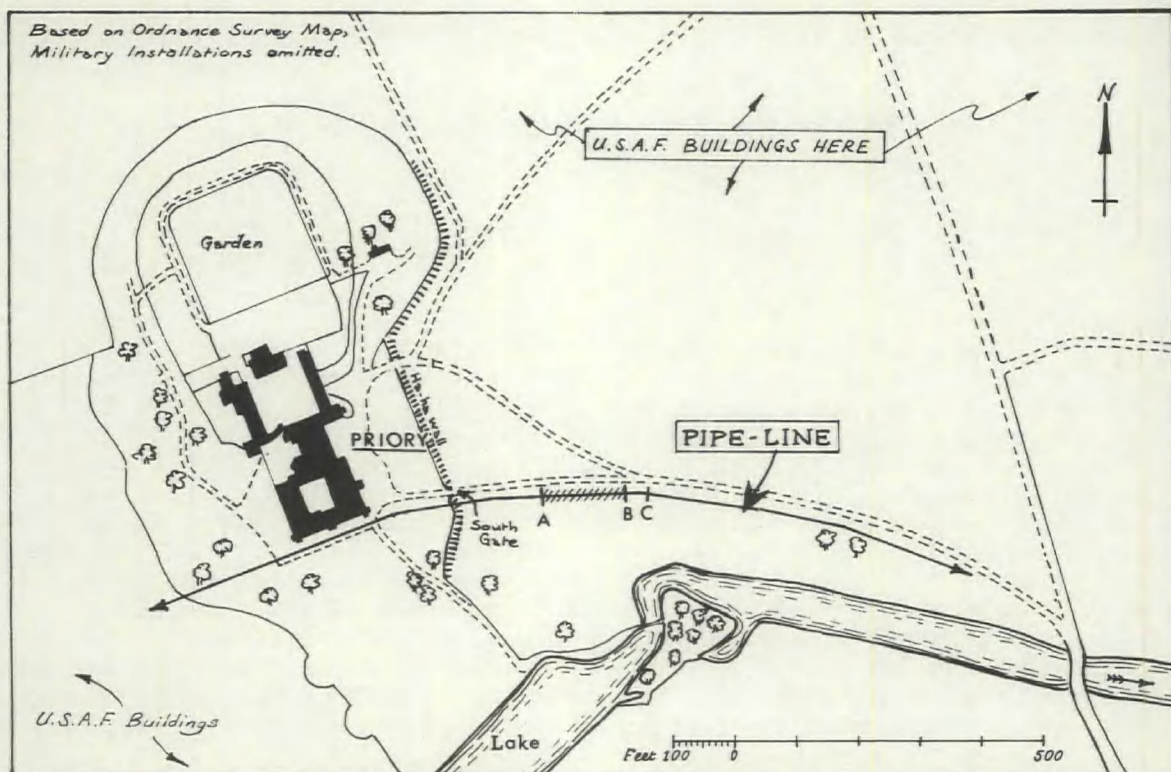


Fig 1 Chicksands Priory: site map.

THE EXCAVATED TRENCH

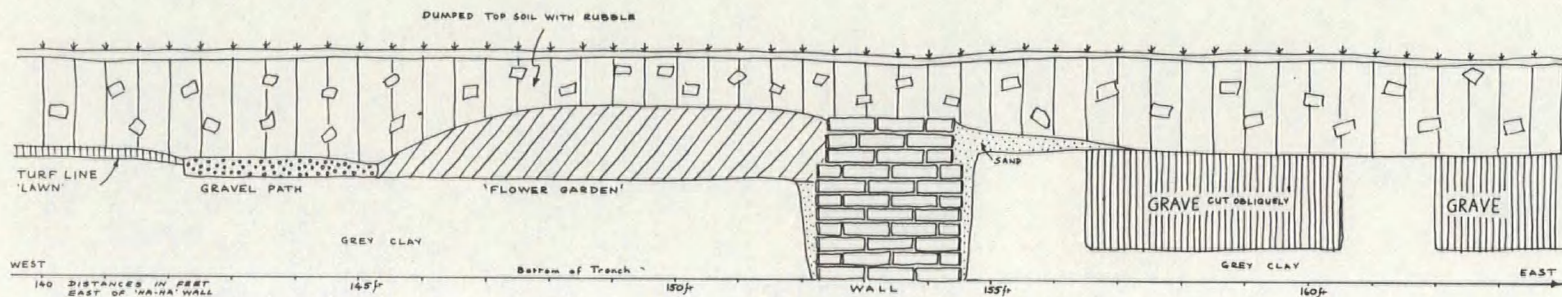
The following features were observed in the trench from west to east (fig. 2). The surface today is at all points an extensive flat lawn

The 'Garden'

1. From the ha-ha wall for 142 ft east undisturbed clay was observed at a depth of 1 ft 6 in, above this was a thin dark turf line, and then darker grey dumped soil containing rubble suggesting made-up ground. This area can best be interpreted as a former lawn, raised to a higher level by covering it with dumped soil.
2. On top of the undisturbed clay was a gravel path 3 ft wide and 4 ins thick, also buried beneath dumped rubbly soil.
3. A garden 7 ft 6 in wide lay east of the path, also covered with dumped soil.
4. At 152 ft from the ha-ha wall was the foundation of a substantial brick wall, 28.75 ins thick at the base. The bricks were of

Flemish-type, all soft and hand-made, without frogs and orange in colour. Their measurements varied between 9.1 ins long by 2 ins thick and 9.75 ins by 2.75 ins. The wall was composed of 8 courses of 3 bricks wide topped by 3 courses of 2½ bricks wide. Of note was the fact that although this was a cross-section of the wall, the bricks were lying lengthwise across it (see fig 2).

The bricks were set in lime mortar, and the wall had been constructed in a foundation trench at least 2 ft deep. Its base was not reached in the mechanically excavated trench. The wall seems to have marked the western limit of the burial ground which lay beyond it. Its considerable thickness deserves particular note. It is not possible to date it, on the evidence only of its Flemish-type bricks which could have been made at any time during the life of the Priory subsequent to the third quarter of the thirteenth century. It could be late enough to have been constructed



CHICKSANDS PRIORY 1969 - Significant Sections

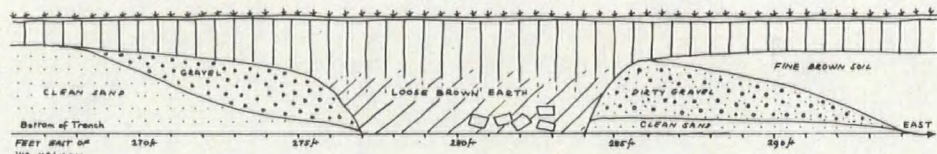
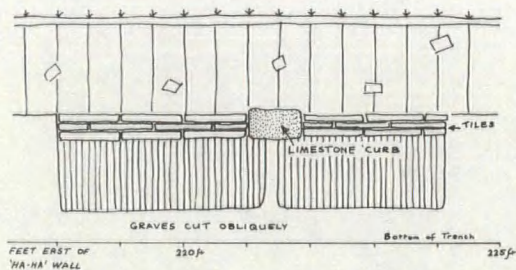


Fig 2 Chicksands Priory: Significant Sections.

after the Priory ceased to exist as a religious settlement and had become a private dwelling.

The Graveyard (See fig 1, A-B)

Below the modern lawn surface the made-up soil continued to a depth of 1 ft 6 in. Under this was undisturbed grey clay into which the graves were dug. There were occasional natural pockets of sand in the clay.

The burials lay diagonally across the pipe trench with heads to the west, feet to the east. The trench had disturbed the graves in such a way that many burials had been partially sliced through. Since most of the bones had been thrown out of the trench by the mechanical excavator, many were buried under spoil heaps, whilst others were taken as souvenirs by the workmen. A representative collection of bones was made and submitted for examination. (See appendix II). Some twelve graves seem to have been disturbed in some way, this is not a precise figure due to the disturbed nature of the ground. The graves were 3 ft deep below the present made-up ground surface, and perhaps as little as 1 ft 6 in below the former surface, although this may have been reduced in connection with earlier garden construction on the site. Two adjoining graves were covered with three layers of undecorated orange 'floor' tiles, and were separated from each other by limestone curb blocks. There were no signs of coffins or shrouds, although a few iron nails were found in the spoil heaps.

The graves ended after 120 ft, at a distance of 276 ft east of the ha-ha wall. At this point a ditch 9 ft wide at the top seems to have been dug to act as a boundary. Its bottom was not reached in the pipe trench.

For 14 ft beyond the boundary ditch was an apparently undisturbed area of brown earth and sand. This was followed by an hollow 11 ft wide, filled with rich brown soil, building rubble, pottery, tiles, animal bones and a few scraps of iron. It was from this area that all the pottery described in Appendix I was salvaged. It seems to have been a dump of domestic rubbish, perhaps connected with alteration to the Priory at the beginning of the 18th century, and placed in a convenient hollow that needed filling before landscaping. The pottery ranged in date from the 12th to 17th centuries.

Beyond a point 350 ft from the ha-ha wall the pipe line trench ran into modern building rubble and

Air Force waste materials.

DISCUSSION

As this was not a planned excavation, but only the results of observing disturbance caused by the digging of a pipe line *after* it had taken place, many questions are left unanswered. Whilst the east-west dimension of the burial ground has been determined, we have no indication of its north-south extent. The traditional site marked on the Ordnance Survey map should also not be overlooked.

The examination of the bone fragments clearly indicate the remains of men, presumably monks, one of them at least sixty years old, none showing signs of abnormal disease, although two appear to have suffered accidents during their lifetimes. Mr Martin has drawn attention to the rather refined hand-structure, which would be in keeping with their calling. There was no dating evidence accompanying these remains.

The skeleton of a young child of between 3 and 6 years poses a problem, and may indicate that the yard was used by neighbouring parishoners or by domestic help at the Priory. It may cause speculation on the point made by Dr Layton when he visited Chicksands in 1535 and professed to have discovered that two of the eighteen nuns were guilty of incontinence. A charge normally dismissed by historians as prejudice on the part of a man instructed amongst other things to investigate the faults of the monastic system.

The unstratified pottery shows the range to be expected from a site inhabited for nine hundred years and exhibits nothing unusual. An iron key from the site, and another from the Biggin, are both of early medieval workmanship.

APPENDIX I

Medieval Pottery from Chicksands and the Biggin, Hitchin

S A MOORHOUSE

A Chicksands, (fig. 3. CH.)

The assemblage of pottery from Chicksands illustrates some of the fabrics current from the 12th to the 17th century although dating within the period has had to be general. It is hoped that the recent excavations within Bedford and at Elstow Priory by David Baker will produce a series of fabrics and forms for the area which will enable the present group to be more closely dated.

The individual sherds are identified below by their catalogue numbers.

CH 52 A single rim in a totally reduced fine grey sandy fabric with smooth surfaces; knife trimmed internally several times, leaving faceted surfaces, whilst externally the shoulder is badly finished where a pad of clay has been applied subsequent to throwing. This sherd is probably the earliest of the whole assemblage dating from the 12th–early 13th century.

Group A Developed St Neots Ware

Only two sherds are represented and can be referred generally to the 13th century. One other sherd (CH 26) is included within this group; although it is harder fired with different tempering it is probably of the same general date.

CH 22 Base sherd with purpley brown soapy surfaces and dark grey core tempered with chalk some of which has baked out on the surface. One other similar body sherd.

CH 26 One sherd from below the shoulder of a small cooking pot in a lumpy reduced fabric with a dark grey core and dark brown lumpy surfaces with very small crushed limestone inclusions. Covered all over internally with black soot.

Group B

The largest group of sherds in a hard fired sandy ware generally reduced with smooth surfaces. The sand particles are large, therefore making the surfaces rather harsh to touch except where they have been smoothed. The date range of the group, mostly jugs but including cooking pots can be generally referred to the 13th–15th centuries.

CH 1 Cooking pot rim in a hard-fired fine sandy fabric with dull reddish brown margins and surfaces and dark grey reduced core.

CH 88 Bowl rim in a hard-fired sandy fabric, dark grey to dark purpley surfaces and a dark grey core; the surfaces although smooth are coarse textured.

CH 72 Near complete strap handle of simple section in a fine sandy paste totally reduced with a dark grey core and light brown margins beneath a dark grey surface. Broad diagonal stabblings down the back with three parallel incisions at the

top. The handle appears to have been applied on a spigot with an additional internal pad of clay obscuring it internally.

CH 18 Handle base in a hard-fired coarse fabric with bluey-grey core, dark grey-brown external surface and dull reddish-orange internal surface. The back of the handle has three parallel grooved lines, deeply thumbbed at the bottom left hand side.

CH 14 Upper part of plain strap handle in a hard-fired sandy reduced fabric with grey core and brick red margins beneath dull brown surfaces.

CH 74 Rod handle in a hard-fired sandy fabric with pimply surfaces; bluey-grey core and yellow-buff oxidized surfaces. Decorated down the back with a single groove stabbed either side in pairs.

CH 10 Base from a large jug in identical fabric and firing to CH 14, but with dark bluey-grey core; well pronounced vertical thumbing on the base angle.

CH 85 Base from a jug in a hard-fired fine sandy fabric totally reduced with dark bluey-grey core and dark grey surfaces; the remains of two thumb marks on the base angle c. 2½ ins apart.

CH 27 Base from a small jug? in a hard-fired sandy fabric with smooth surfaces, totally reduced to a dark grey. The pronounced foot ring has slight thumbings on the edge.

CH 73 Rim sherd in a fine sandy fabric with dark grey reduced core and light-red margins beneath and very smooth dull brown surfaces. A wide band of clay has been externally applied in the concave shoulder and thumbbed horizontally with large deep thumb impressions.

CH 12 Clubbed-rim from a bowl in a hard-fired sandy fabric with dark grey core with brick-red margins of 0.16 cm uniform thickness and purpley under surface.

Group C

The fabric of this group is a lot finer than Group B above and in all cases it is oxidized. The sherds CH 20 and CH 11 are similar in general to the whole range of similar fabrics covering the Midlands as typified by the Brill kilns. However, more comparable material can be found from excavations in Bedford, and therefore a local source for the material is probable. A date in the 2nd half of

- than the rest of the group and can probably be referred to the 16th century.
- CH 80 One piece of Cistercian ware in a hard-fired thin reddy-brown fabric with an overall deep purple metallic glaze. The form of this sherd is difficult to determine, but can safely be assigned to the period late 15th to early 16th century; possibly from a type 7 or 15 (*Antiqs. J.* 46 (1966) 265, fig. 6.14, and 266, fig. 7.23 respectively. The initial type series is published *P. Thoresby Soc.* 49 (1962-64) fig. 38).

Group D

Five sherds fall into a general post-medieval group of the late 16th to 18th centuries of which only three are worthy of illustration.

- CH 78 Lid rim (?) in a sandy fabric with grey reduced core and light pinky smooth surfaces. 16th to 17th century date.
- CH 67 Base in a fine sandy totally oxidized pinkish fabric with dull yellow-buff outer surface; very smooth internally. 17th century.
- CH 79 Base in a very fine smooth reddish-brown fabric covered all over in a bright bronzy glaze. Probably Staffordshire 18th century.

All the pottery from Chicksands described in this report has been deposited in Bedford Museum.

B The Biggin, Hitchin, Herts. (fig. 3.B)

During 1968-9 Mr Christopher Beresford-Webb carried out excavations at the other local Gilbertine Priory, the Biggin, at Hitchin. A brief account of four sherds of pottery from that site is here given for comparison, prior to Mr Beresford-Webb's own publication.

- B 161 Large sherd giving a complete profile from a steep-sided bowl in a hard-fired fine sandy fabric with small sporadic chalk inclusions, a light grey reduced core and dull brick-red margins beneath a dull brown inner surface and a dark grey fire-blackened outer surface. The fabric is very similar to CH 26, in Group A from Chicksands Priory, and of similar 13th century date.
- B 156 Large rim from a cooking pot in a very hard-fired sandy fabric with a dull brick-red core and dull brown surfaces. Probably 14th century.

- B 167 Jug handle in a light grey hard sandy fabric with dirty off-white core. Decorated along the upper edges with deep incisions with a central line of more sporadic incisions. Probably 14th century.
- B 163 Body sherd from the shoulder of a jug in light brownish-grey sandy fabric with dull brown outer surface tempered with very sporadic small chalk inclusions. Two oblique incisions cut across faint annular grooving. Probably 13th century.
- B 168 Body sherd from a large cooking pot in a hard-fired sandy fabric, with a dark grey core, as well as inner and outer surfaces. Small section of vertical thumb-strip. Probably 13th century.

APPENDIX II

The Human Remains

CLIVE MARTIN

THE bones received are stained yellow externally, and where there are fresh breaks, the colour of the interior is shown to be white. Older breakages show a discolouring of the interior and to an extent the destruction of it. Several bones show marked erosion due to the action of the soil. Since all the bones had been collected from the spoil heaps after the mechanical excavator had disturbed them, no complete skeletons could be expected. The most that could be hoped for was an approximate indication of the number of burials under consideration, and details of their age, sex and health.

The pelvic bones afford the best indication of sex, and of all those studied, only males were represented. One skull was found and this also appeared to be male.

Several of the bones give a good indication of the individual age of the skeletons, these include ribs, teeth and pelvic bones. On the evidence of Dr Landells, the ribs show characteristics in keeping with old age. There is mainly evidence of ossified cartilage at the sternal end of the ribs making at least one person well into his sixties at death. A tooth present in a piece of skull shows considerable wearing of the grinding edge and some cracking of the enamel surface suggesting old age and a good diet, as there were no signs of caries.

Dr Landells could not find much evidence of

disease except that some of the ribs showed a degree of periostitis (inflammation of the bone), the probable cause of which was traumatic; a heavy blow across the chest for example. In no bone studied was there evidence of disease that would have been a prime cause of death.

From calculations based on the measurement of femurs and humerus bones, the skeletal stature of six persons has been determined. It must be noted that this is the skeletal height and that an estimation of the thickness of the sole of the foot and the scalp should be added to obtain a true height. The heights of the six individuals, in feet, were: 5.230 ft; 5.244 ft; 5.300 ft; 5.317 ft; 5.437 ft and 5.610 ft.

In addition to the above adult skeletons uncovered I examined part of the pelvic bone of a young child. On the size of it and the stage of ossification it is in, I would say that the child was over three years old at death and probably under the age of six. This particular bone is the same colour as the other bones and burial probably took place at roughly the same period as the others.

Another bone which aroused interest is a thoracic vertebra which shows a marked depression on the upper aspect of its body. It was either incurred after death (which I think is unlikely as no other bones show this phenomena as they would if the soil had been a cause of disfigurement) or before death, which I think is more likely. It could have happened as the direct result of a fall which in some way compressed the spine, perhaps a fall from a height, landing on the head or the feet. If this were the case, I would expect to find other bones in similar condition; I have not done so, but this might be just that they were not dug up.

Several phalanges were pieced together and gave the impression of long slender hands. The left os calcaneum (heel bone) is quite a good specimen and is from a small foot.

I should like to thank Dr J W Landells, Reader in Pathology to the University of London and the London Hospital Medical College, for his kind help and encouragement, and S Rouse of Enfield Grammar School who has given me much assistance.

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Somerles Castle: Some Reconsiderations

TERENCE P SMITH

THE name 'Somerles Castle' is applied to two sites of archaeological interest near Luton (N.G.R. TL/119201): one a moated enclosure, the earth-work of which is still visible; the other, part of a fifteenth century brick-built manor house. The latter especially is important in that it is an early use of English brick. Another paper of mine discussed both these sites, with the emphasis on the brick building (Smith 1966). The present paper reconsiders certain problems pertaining to both sites, which it seems likely only archaeological excavation will be able finally to solve. To this end the author had planned to excavate at Somerles for a short period during the summer of 1969, but unfortunately he was indisposed after only one week's work and the excavation had to be abandoned. It is very much to be hoped that opportunity for excavation will present itself in the not too distant future, especially in view of the threat to the site under the redevelopment plans for Luton Airport. The aims of the present paper are (i) to delineate those problems which any future excavator will most need to bear in mind; (ii) to discuss certain aspects of the sites in the light of the consideration given them by Mr James Dyer in the second edition of *The Story of Luton*; and (iii) to report on the findings of the one week's (attempted) excavation. As will be seen in the course of the paper, these aims are interconnected.

The present paper, in order to avoid too much repetition of descriptive matter, assumes a knowledge of my previous paper.

THE MOATED MANOR

In my earlier paper I asserted that the moated enclosure belongs to the thirteenth century (Smith, 1966, 35); no argument was there given but it was based on the fact that there is a reference to the estate of Somerles right at the beginning of the fourteenth century; the *Calendar of Inquisitions post mortem* (2 Edward II, 58) records that in

1309 the manor passed by descent from Agnes, wife of Roger de Somery of Dudley Castle to her son John. As the *Victoria County History of Bedfordshire* observed, the fact that the property already included a capital messuage points to there having been some sort of structure here at that time. (*V.C.H. Beds.* 2 (1908) 364).

But the most we can infer from the 1309 reference is the existence of some sort of structure on the site, not necessarily the *moated enclosure*. Recent investigations show that even substantial buildings may have existed on a site prior to the construction of its moat (Hurst, 1967). It has also been shown (Hurst, 1967, 83; Emery, 1962) that the majority of the moats that occur in a liberal sprinkling on the Ordnance maps were constructed during the latter part of the thirteenth century and the early part of the fourteenth century. And its *form* would suggest that the moated enclosure at Somerles belongs to the latter part of that period. Indeed, Mr John Hurst in conversation suggested to the author that it should be assigned to the fifteenth century, on the basis of the rectilinearity of its plan. This is perhaps a little over-scrupulous, but certainly a late date is suggested and one in the fourteenth century might seem most likely. Contrary to the assumption in the previous paper, a date in the thirteenth century is not probable.

The Excavation

As was explained earlier, the excavation had to be abandoned after only one week's work; however, a trial trench across the moat and onto the lip of the inner mound was 'begon ... but not finischid'(!). The trench was cut across the south bank and ditch, 29.25 m from the south-west corner at the top of the bank. I here report the findings of that excavation. Six inches of humus overlay the whole of the area excavated. Beneath this on the counter-scarp bank was a capping of hard, compact, brown clay but with some stones

including flints; this represents bank make-up, but the abandonment of the excavation meant that the depth of this layer could not be ascertained. The outer ditch was not excavated. The inner bank was capped by a layer of hard, compact, brown clay make-up with stones, similar to that on the counter-scarp. Beneath this was a layer of flints and other small stones in brown clay representing stony make-up of the bank. On the south-east side of the bank this finished abruptly, but on the north-west side it thinned out down the slope. Below this layer was a layer of light brown loamy earth with a few small clay patches, again representing bank make-up. The depth of this layer was not ascertained.

At the centre of the inner ditch (or *yard*, according to Dyer (1966, 66-67)) was an almost horizontal layer of stones of undiscovered depth. At the south-east side this was overlapped by a shallow layer of brown earth and at the north-west side by a layer of light brown, loamy earth containing numerous small stones. On the surface of the central layer of stones were found sherds of sixteenth and seventeenth century bellarmine. The uppermost layer on the inner mound was a layer of stones containing small amounts of charcoal and a few brick and tile fragments of indeterminate date. Beneath this was a layer of light brown, loamy soil with many stones in it. Below this, and running across the trench, was a band of dense brown clay about three feet wide. A setting of fairly largish flints was in this clay, but no definite pattern was made by these and they may be a purely fortuitous feature and of no significance.

In all layers (except the humus) on the inner mound and in the inner ditch small sherds of poor domestic pottery of thirteenth century date were found together with one sherd of fourteenth century poor domestic ware.

The finding of thirteenth century pottery indicates occupation of the site at that date, thus confirming the evidence of the *Calendar of Inquisitions post mortem*; but it does not necessarily show the *moat* to be of that early date. A more complete excavation is needed to discover the date of construction of the moat.

THE BRICK BUILDING

John Lord Wenlock received the estate of Great-hampstead Someries from one John Aylesbury

of Edeston in 1464. (*V.C.H. Beds.* 2 (1908) 364) Leland in his *Itinerary* (VI, 66) described the building as 'a faire place within the Paroche of Luton caulyd SOMERYS, the which house was sumptuously begon by the Lord Wenlock, but not finischid.' Probably we may accept Leland's statement as true. But the question still remains: does this mean that only the chapel and gatehouse were *ever* completed, or that more—but not *all*—of the building was completed and has been subsequently demolished? Neither of these alternatives may be automatically rejected. In the first edition of *The Story of Luton* Dyer argued that only the chapel and gatehouse were ever built, but I subsequently demonstrated that the structural evidence itself was insufficient to support Dyer's contention (Smith, 1966, 44); but this did not invalidate Dyer's conclusion. It only showed the basis of this conclusion to be a false premise.

In the second edition of the same book Dyer advanced the rather different thesis that only the chapel and gatehouse were completed, *and that Wenlock and (later) Rotherham continued to live in buildings on the moated site* (Dyer, 1966, 98). This was not stated in the first edition, though it was probably implicit in the theory therein held. As evidence for this view Dyer mentions the inventory of 1606 which was reported by Davis (1874, 91). What is most notable about this document is that it *fails* to mention the chapel and gatehouse. On the supposition that it is to the brick building that the document refers it is very difficult to see why this omission should occur. In the earlier paper the author was unable to explain this curious fact, as was Dyer in the first edition of *The Story of Luton*; but on Dyer's new interpretation the inventory would describe not the brick building at all, but the complex of buildings on the moated site, and in this case there is no problem about the absence from the document of the chapel and gatehouse. Unfortunately, Davis lost the inventory after making his transcript of it and its authenticity is not entirely beyond question. On the other hand, assuming the document to be genuine, Dyer's new theory certainly makes more sense of this document than the author was able to do in the earlier paper.

It has already been mentioned that during the short excavation in 1969 sherds of sixteenth and seventeenth century bellarmine were found in the upper layers at the north-west end of the trial

trench. These indicate some sort of sixteenth and seventeenth century occupation of this moated enclosure, but it would be rash to suppose that they give any firm confirmation to Dyer's theory; yet they do oblige us to regard that theory with increasing confidence.

On the other hand, there are some points which appear to militate against the theory. In the first place, the inventory lists a total of twenty-four rooms, so that we must envisage a fairly large structure; yet Leland could describe the building on the moated site as '*part of the Olde Place* [which] standeth yet.' (Emphasis added). This certainly does not sound like the description of a twenty-four roomed building (Manning, 1956, 157 Smith, 1966, 35). The later building on the other hand is described as '*a faire place*'. And the whole of Leland's passage reads as though it was the brick building which formed the dwelling in his time, that is, over half a century before the date of the inventory.

In the second place, the document referring to the demolition of Someries states that in 1742 Napier pulled down *a great deal* of the house (Smith, 1966, 48). If this were a reference to the building(s) on the moated site then *some* of this building must have been left standing. But there is nothing at all to be seen there today, apart from the earth-work. This does not make the matter certain, of course, since all sorts of things might have happened to the remaining fragment of the building, but it may cause us to have a few doubts about Dyer's thesis. Added to this is the fact that in the nearby eighteenth century farmhouse are thousands of bricks of Someries type. It is just possible, but hardly likely, that this many bricks were left on the site when work on the fifteenth century building was stopped, and that they were used from brick-stacks after some two hundred and fifty years. It is much more likely that these bricks were originally part of a larger fifteenth century building and that they were obtained for use in the farmhouse at the demolition of 1742. The date of the farmhouse is consistent with this suggestion. Also, the latter situation certainly fits well the statement of the document just referred to that Napier demolished a great deal—but not all—of the building at Someries.

Thirdly, as was recorded in the previous paper, there are a few window blockings in the chapel and gatehouse; it is not easy to see why anyone should go to the trouble of blocking the windows

of a half-finished, unoccupied building.

For these reasons I do not think one can regard Dyer's new interpretation of the evidence with quite the confidence with which he appears to regard it, although it does have its attractions. The matter must be left unsettled for the present; only archaeological excavation will enable the question finally to be answered. It is to be hoped that such excavation will be able to take place soon.

APPENDIX 1

POTTERY AND GLASS FROM THE EXCAVATION

(1) Pottery

Group I: 13th century, possibly early 14th century

1. Small sherd, reddish brown homogeneous fabric; a few quartz fragments showing in generally smooth surface.
2. Small sherd, red tile like fabric with black core; brown glaze.
3. Small sherd, very fine smooth fabric; orange-buff; apparently wheel-made.
4. Small sherd, gritty grey fabric with a few tiny quartz fragments.
5. & 6. Two sherds fitting together to make rim of vessel; dark buff fabric; somewhat coarse, with quartz fragments.

Group II: 16th century

7. Part of rim of bellarmine; red surface with grey core; fairly smooth fabric; grey and brown glaze.

Group III: 17th century

8. Part of wall of bellarmine; greyish buff surface with grey core; smooth fabric; grey and brown mottled glaze.
9. Part of base of bellarmine; grey-buff fabric with buff and brown mottled glaze; projecting base with moulding just above (see illustration).

(2) Glass

Two pieces of glass vessels were found in layer 10, close to sherd 9. Both are dated to the seventeenth century, or possibly to the eighteenth century.

1. Markedly curved green glass; very clear; perhaps part of neck of bottle.
2. Slightly curved green glass, thicker than 1. Translucent, with very poor surface. ?part of bottle or glass vase.

APPENDIX 2

THE OWNERS OF THE SITE, 1309-1724

In 1309 the manor passed from Agnes, wife of Roger de Somery of Dudley Castle, to her son John, who died in 1321 leaving two sisters as co-heiresses: Joan de Botecort and Margaret, wife of John de Sutton of Dudley (*Cal. Inq. p.m.* 16th Edward II, no. 72; *G.E.C. Complete Peerage*, vii). The manor itself passed to Margaret, as is indicated by the fact that the trustees conveyed this property to Sir John de Sutton in 1380; this John de Sutton was Margaret's grandson, and in 1380 he came of age (*Close Rolls* 3rd Richard II, no. 35d). There is no further reference to the site until its transfer by John Edeston to John Lord Wenlock in 1464 (*Close Rolls* 3rd Edward IV, no. 21). Until 1611 the estate followed the same descent as the manor of Luton, (*V.C.H. Beds.* 3 (1912) 'Luton manor'). In 1611 Sir John Rotherham alienated the manor of Luton and retained Greathamstead Someries, which he sold to his son-in-law, Sir Francis Crawley in 1629 (Lysons, *Magna Britannia*, 1, 110; Cobbe, *History of Luton Church*; Crawley Papers, no. 137). The Crawley family retained the estate until 1724 when it was purchased from them by Sir John Napier, and again follows the same descent as the manor of Luton (*Bibl. Topog. Brit.*, 31).

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Notes

Iron Age sites at Wollaston, Northamptonshire

D N HALL and N NICKERSON

During autumn 1966 a grader removed 9 in (23 cm) of topsoil in advance of quarrying for ironstone at the site (fig 1) (coded W17 on the system used *Beds. Arch. J.* 3 (1966) 1-6) (N.G.R. SP/909641) revealing the boundary ditch and living area of an early Iron Age enclosure, whose area, assuming the enclosure to have been rectangular, would have been at least 4.7 acres (fig. 3). The east limits were not exposed and the ditch did not continue the full length of the south side. It was approximately 10 ft (3 m) wide and very shallow, at 2 ft (60 cm) deep, (measured into the subsoil as are all depths), no doubt because of the 20 ft (6 m) thick stratum of solid limestone beneath.

The NW side had a complex series of cuts and a narrow parallel trench on the outside 14-18 in (35-45 cm) wide and 5 in (13 cm) deep, possibly for a palisade. The living area was on the S. side where several large hut circles were marked by post holes approximately 10 in (25.5 cm) diameter and 1-12 in (up to 30 cm) deep generally filled with black deposits. A patch of intensely burned pebbles marked the position of a hearth.

A rectangular set of post holes forming a building 20 ft by 16 ft was found outside the enclosure. The complex of holes at the SE, were presumably caused by superimposed dwellings which can not now be distinguished.

Little occupation refuse survived: none was visible in the ploughsoil before grading. All the finds came from the S side of the enclosure. Only 3 post holes contained sherds (marked P). The few rim sherds found are not instructive, but seem to be in the Iron Age A tradition, being from vessels with wide mouths rather than the smaller mouthed globular shapes of the B period. Few of the sherds were well fired, most did not have the usual 'sandwich' appearance in section; the colours of the

inside and outside penetrate the surface until they meet in the middle. The pottery closely resembles material from Irthlingborough, Northants, (*Beds. Arch. J.* 4 (1969) 1-5, figs. 1 and 2.10) and is therefore Iron Age A.

Since the area is not entirely closed in, and the ditch is so shallow, it cannot be a defensive encampment. This and the sparse nature of the occupation suggest an agricultural settlement of fairly short duration.

Discovered also were the furrows of the medieval strips in parts of two furlongs. It is interesting to note that the boundary between these furlongs (area with no furrows) is aligned along the Iron Age ditch. At the NW side were two mid-19th century lime kilns and the contemporary quarry. The kilns were 4 ft. diameter with about 3 ft. of walls surviving.

Housing development revealed the plan of a further Iron Age site (coded W18) (N.G.R. SP/913630), drawn in the inset, appears to be the fragmentary remains of part of a hut footing sleeper trench together with a few pits and post holes. The hut trench no 1, only 7 in (18 cm) deep, containing many burnt pebbles, widened at the west end in the manner of an entrance ditch. The 'pit' no 4 narrowed down to a post hole 14 in (35.5 cm) deep and is in line with post holes nos 2 and 3. These appear to make up the west side of a rectangular building. Pits 5 and 8 were shallow, only 14 in (35.5 cm) deep. Pit 6, vertical sided with a flat bottom at 33 in (84 cm) down, contained much occupation rubbish and limestone. Pit 7 was bottle-shaped (*Beds. Arch. J.* 4 (1969) 1 and 8, fig. 6.84-98). The ditch, no 9, was 5 ft (1.5 m) wide and 30 in (76 cm) deep. The pottery is in the A tradition but shows B influences. The site can only have been occupied for a very short time, perhaps by a single family.

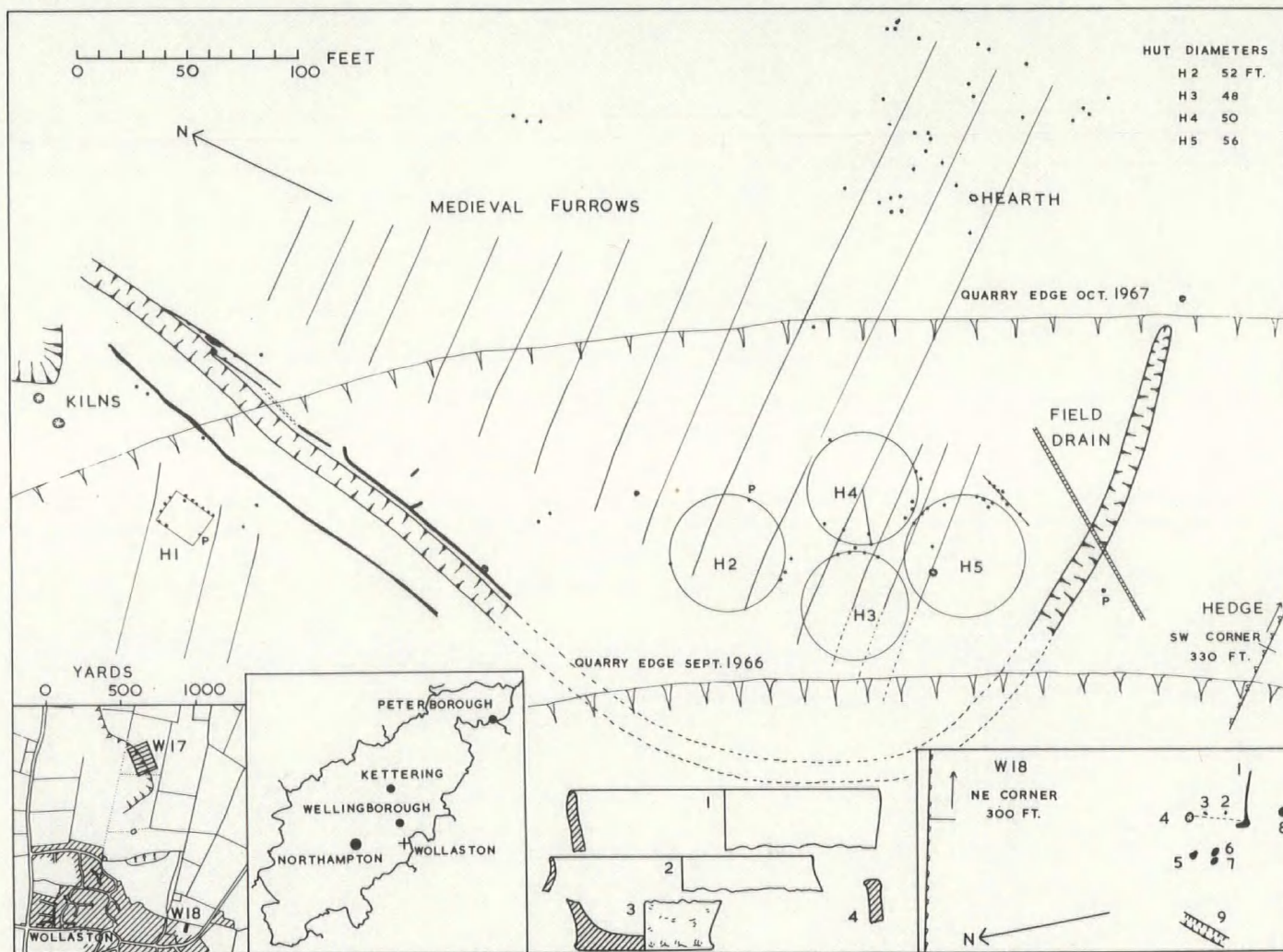


Fig 1 Iron Age Sites at Wollaston.

A Medieval Steelyard Weight from Great Barford.

F W KUHLCHE

In 1929 J H Brown of Great Barford gave to the Bedford Modern School Museum a bronze steelyard weight found on his farm in 1926. The late Dr G H Fowler exhibited this weight to the Society of Antiquaries of London in 1926. The subsequent note (*Antiqs. J.* 6 (1926) 449) stated that although the weight bore the arms of Richard, Earl of Cornwall it could not be contemporary with the Earl as it had upon it the double headed eagle, claimed not to have been displayed heraldically on seals until 1378. The weight, however, is not a seal and from the roll of arms ascribed to Matthew Paris, c. 1250, (British Museum MS Cotton Nero D1 ff 170, 176) we know that the eagle, single or double-headed ('aquila biceps vel moniceps') was born by Frederick II sable upon a golden shield. There is therefore no reason to doubt the earlier dating of the weight: mid thirteenth century.

Bedford Museum have now acquired a second weight from Great Barford, found on land belonging to Messrs J & B Green. In view of this it is worth considering both weights in the light of Drury's paper on thirteenth century steelyard weights occasioned by the discovery of a weight at Wareham, Dorset, in 1925 and the classification he proposed (Drury, 1925).

Weights—General Observations

All the weights are bronze; originally and often still, filled with lead; are spherical with flattened top upon which is a perforated lug by which the weight is attached to the steelyard. They vary but little in size, 7 to 12 inches in circumference (12 inches is exceptional) and bear three or four shields of arms. They fall into two classes: I with the heraldry in relief and II with incised shields. In Class I the shields are part of the original casting, in II they have been incised after it. Bedfordshire has no examples of Class II.

In general the arms displayed upon Class I weights are all connected with Richard, Earl of Cornwall

Count of Poitou whilst those of Class II are, on the whole, connected with his son Edmund and Edmund's wife, Margaret de Clare. With Edmund's death in 1300 the earldom of Cornwall became extinct and no more weight of either type appear to have been made.

The weights of Class I have three or four shields and display, in various combinations the arms of England, the Empire, the Kingdom of the Romans, the Duchy of Cornwall, in four cases, the honour of Clare. In two cases the quartered arms of Leon and Castille occur and on one weight the fleur-de-lys. Every weight in Class I bears either the rampant lion or the displayed eagle and in all except eleven both occur. Drury dealt with about 60 weights and a few more have been examined since.

The arms displayed are, heraldically described (nos as pl. 8):

1. England (Richard was a son of King John and brother of Henry III). Or, gules, three leopards.
2. The Empire (Richard was 'heir' to the imperial throne). Or, an eagle displayed sable (either one or two heads).
3. As King of the Romans.
Or, a lion rampant.
4. Earldom of Cornwall.
Argent, a lion rampant gules crowned, or, within a bordure sable bezanté.
5. Clare
Or, 3 chevrons, gules (not illustrated)

The presence of the eagle gives the dating of the weight as between 1257 when Richard was elected King of the Romans and 1272 when he died. The weights with the arms of Clare are to be associated with the 2nd Earl of Cornwall, Edmund, who succeeded his father in 1272 and died without heir in 1300. Thus all these weights belong to the second half of the 13th century. Mr Drury points out the significant fact that there are no two quite alike and when they resemble in the arms they

differ in size and weight.

Bedfordshire Examples *Toddington*

In November 1862, Major Cooper-Cooper of Toddington exhibited to the Society of Antiquaries of London a bronze steelyard weight dug up locally (*PSA* 2nd ser 2 (1863) 43). It belonged to class I and had three shields: one with an eagle, two with lions rampant. No other details were given and its present whereabouts are unknown. The weight was not in the catalogue of the sale of the Cooper-Cooper collection in 1905.

Barford 'A'

Bronze, lead filled. Two incised lines round top of bulb. Three shields in relief: England (3 leopards passant): The Empire (double-headed eagle displayed): Poitou (a lion rampant). The shields are 3.8 cm high, 2.5 cm wide at the top and 3.2 cm, 4.7 cm, 5.4 cm apart. Weight 10.78 kg. Height (to top of lug) 8.9 cm. Height of lug 2.5 cm. Circumference 25.4 cm. Just above right hand corner of the shield England there is a hole in the casing; from it a fissure runs down the side of shield to another hole by the point of the shield. This may be a partial burst caused by the inflow of hot lead. There are no 'pin holes'. (*Antiqs. J.6* (1926) 449 with figure).

Barford 'B'

The second Barford weight (pl. 8) is hollow the lead having been extracted through an irregular hole about 1.3 x 1.1 cm from which a fissure runs up almost to the ornamental band round the top. Another fissure runs from near the hole along the side of one shield and thence to the band whilst a third runs from the hole to the base of another shield.

There are three narrow oblong 'pin holes', two vertically one above the other and 7.0 cm apart lie in a line with the thin end of the lug just above and just below the lion and leopards. A third pin hole occurs between the fesse line of the Cornwall and Empire shields.

The well defined shields are in good relief and 1 in wide at the top and 1.5 in from top to base point. The spacing between them is irregular: 4.6 cm, 2.3 cm, 3.2 cm, 2.5 cm.

The English leopards are well modelled in good relief. The arms of the earldom of Cornwall, a lion rampant, crowned, within a bordure bezanté

are equally well drawn but the 'bezants' are more like billets i.e. rectangular. The other two shields are good but not quite so fine.

Like all weights of this type it is spherical with a flattened top which has a triangular lug 3.2 cm thick pierced with hole of 1.3 cm diameter and rises 1 in above the top. The ends are slightly curved.

Round the top of the sphere runs an incised band of equilateral triangles and parallel lines. The triangles are sub-divided into three by slightly curved lines.

All the four shields are found on some or other of this type of weight the number of four being less common. The pattern of triangles is fairly common but that of sub-divided triangles occurs in only one other known specimen. This is a weight found near the Huntingdon road, 4 miles from Cambridge, now in the Museum of Archaeology and Ethnology, Cambridge, (Drury, 1925,8) which has the same four shields as Barford B and a bordure of the Cornwall shield has fifteen regular bezants. Weight recorded as 5 lb 6 oz (11.85 kg) height 3.4 in (8.6 cm), circumference 10.1 in (25.7 cm), it and Barford B form the closest matching pair of weights recorded.

Historical Considerations

Born in 1209, Richard, Earl of Cornwall and Count of Poitou, was the second son of King John. Under Henry III he was regent of England during his brother's absence in Gascony. Probably as a result of his work in the crusades (1240) early in 1257 he was offered the German crown (in the Holy Roman Empire) and elected King of the Romans, being crowned at Aachen in May that year. He held, among many other estates, the Castle of Berkhamstead. In 1260 he obtained from his royal brother a charter for the Hansa merchants in London whose depot was known as the Steelyard. In 1266 there was a commercial re-organisation through which the control or weights passed into the earl's hands and this would probably be reflected in the application of his arms with the royal arms to the weights.

Richard was connected with Bedfordshire in several ways. He held manors and lands in Luton Hoo, Sundon and Pertenhall and intervened in several county matters during his term as regent. For instance, Robert Malherbe had placed his estates in the hands of Jews and Richard authorised Abraham the Jew of Norwich to seize them. As

Malherbe was an under tenant of the Beauchamp barony in Hockliffe he attempted to seize that but failed. However, Earl Richard did seize William de Beauchamp's barony of Bedford when that presumptuous baron refused to answer some seventeen writs from the Abbot of Warden. The abbot appealed to Richard as regent who thereupon seized the barony.

By virtue of his manors of Sundon and Luton Richard attempted to withhold market dues from Dunstable and there was some friction between him and the town.

Richard left a son Edmund, last Earl of Cornwall who did not inherit the princely German titles. Edmund married a daughter of the house of Clare and many of the Class II weights have the three chevrons of Clare instead of the imperial eagle. Edmund's death in 1300 marks the latest date for the weights and more or less coincides with an edict forbidding the official use of steelyards for

weighing.

It is significant that most of the weights were found on or near land and water routes associated with the wool trade.

These two weights were found near to an important crossing of the Ouse. Not long after the period assigned to the weights a bridge was constructed at Great Barford apparently as a better means of crossing the Great Ouse on what must have been a wool or sheep route from the Cotswold country to the eastern ports trading with Flanders. The building of this bridge was the cause of a complaint by the burgesses of Bedford whose tolls suffered considerably. There was a wool staple at King's Lynn by the mid 14th century and there was a considerable wool trade before that date.

Bibliography

D Drury, 1925, in *P Dorset N H & A S* 47 (1925) 1 ff.

The Bedfordshire Archaeological Council wish to thank Bedford Corporation for a grant towards the illustrations of this note.

Bedfordshire Archaeology, 1969-70

compiled by D H KENNETT

The summaries below are intended to serve as a guide to current fieldwork, excavations and museum research on the archaeology of Bedfordshire. Important isolated finds and museum acquisitions are also included.

The compiler wishes to thank all those who have contributed notes for this section and hopes that future work and finds will be brought to his notice for inclusion in subsequent issues of the *Bedfordshire Archaeological Journal*.

BEDFORD Castle TL/052497

A second trial trench on this site in 1969 was supervised by David Baker (cf. *Beds. Arch. J.* 4 (1969) 85). It ran N-S from the S side of the wall on the S side of the Ram Yard car park. Bricks in the footings showed the superstructure of this wall to be post-mediaeval, though sealing an earlier footing associated with occupation layers immediately on natural subsoil. A stone lined pit of uncertain date was seen in the south end of this trench.

Mechanical extension and deepening of the original trench produced one side of a deep rubble filled feature cut into the natural subsoil. This may have been a robber trench, and belonged to the earliest period at this point.

It is hoped to excavate more extensively on the Castle in 1970. Generous help with the 1969 work came from Bedford Corporation, Division of Technical Services.

BEDFORD: Medieval Pottery

Work has continued on the collection of medieval pottery in Bedford Museum derived from commercial redevelopment of Bedford in the 1930's, (*Beds. Arch. J.* 4 (1969 17-25; 84). The Cauldwell Priory finds and jugs from the Westminster Bank, 81-83, High Street, Bedford, have been drawn and catalogued (*Beds. Arch. J.* forthcoming).

An unusual item is a three-handled vessel, from an unknown site on Bedford High Street (fig. 1).

Two large sherds give a complete profile of the vessel with a handle at each end of the rim sherd, in one case broken off before reaching the body of the vessel. The vessel has a dark grey shell-gritted core with larger pieces of filler in a harder texture. Surface breaks show clearly a laminated structure of the fabric with surface breaks on the lines of the laminations. The inner surface is light grey fading to light purple; the outer originally light red-brown to light brown, but largely flaked off or smoked to dark grey (Bedford Mus. 3721).

In size this vessel resembles the Thetford ware spouted pitchers, known from Ely (*P. Camb.A.S.* 50 (1956) 52, fig. 7.1), Thetford (*Med. Arch.* 3 (1959) 35, fig. 13), and Colchester (*P. Camb. A.S.* 50 (1956) 46, fig. 6.1), which, however, are spouted with two handles on opposite sides with the spout set between them. On the Thetford pitcher there is an additional handle opposite the spout. Thetford ware pitchers are known in some quantity from Cambridge (*P. Camb.A.S.* 50 (1956) 51-52, fig. 7) but this would seem to be their western limit. In a shelly ware, this vessel is related to St Neots ware, but its texture is different to the norm at Bedford. Possibly this vessel is an attempt to imitate the pitcher in size but without the spout and with a different handle arrangement. One cannot easily date such a vessel, but the general dating for shelly wares at Bedford would suggest a range of 850 to 1250 A.D. for the three-handled pot.

BLETSGOE TL/019586

The North Bedfordshire Archaeological Society have continued excavations under the direction of David Hall to determine the extent and dating of the cemetery. A single row of inhumations, buried at irregular depths, aligned NW-SE, appear to be Christian Saxon. The skeletons lay with hands crossed, a position similar to the late Saxon skeletons excavated at Brixworth, Northants. The

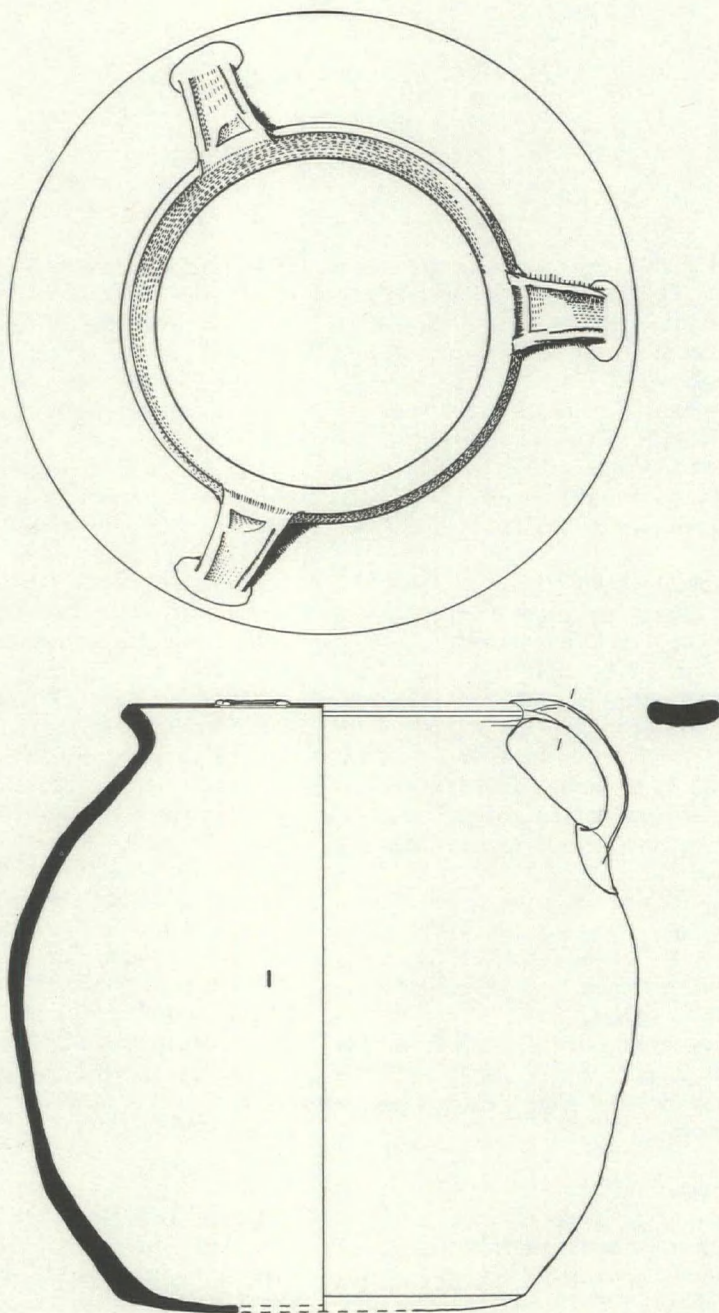


Fig 1 Three-handled pot from High Street, Bedford ($\frac{1}{4}$).

graves, of both sexes, but no children, cut into late fourth century levels with pottery and coins; sherds of Romano-Saxon pottery were also present.

BLETSOE TL/021593

The North Bedfordshire Archaeological Society recovered a group of pottery from a contemporary pit or ditch. The sherds were insufficiently representative to determine whether they were pre-Roman Iron Age or Anglo-Saxon.

BRICKWORKS

A W Guppy is collecting information about early brickworks in Bedfordshire.

CADDINGTON

The palaeolithic floors discovered by Worthington G Smith in 1915 are to be re-examined by a team from the Universities of Oxford and Oregon. Prior to this R Hagen has been examining the Worthington Smith finds in Luton Museum and has been able to establish correlations between the floors and the flint artefacts (*Beds. Arch. J.* forthcoming).

CAMPTON

A group of six worked flints have been presented to Bedford Museum. They are two scrapers, a flake, a tanked and barbed arrowhead, a burin and a small knife blade broken off to leave only the final 5.c.m. before the point.

CARLTON SP/493548

M J Hare has examined Carlton church and reports the earliest structure to have been a two cell Anglo-Saxon church. (*Beds. Arch. J.* forthcoming).

CHICKSANDS, Rowney Warren TL/1040

A Belgic urn (fig. 2) found in Rowney Warren, Chicksands, has been placed in Bedford Museum on an indefinite loan. It is thought to be one of a number from the area, though the others have yet to be seen by an archaeologist. The present vessel, of a hard, black ware, is complete save for slight damage to the rim and body. It has horizontal grooves on the main part of the body with light vertical striations between them. On the neck are indistinct diagonal striations. The vessel is 22.0.cm. high and has a rim diameter of 9.8.cm. Though many Belgic cremation urns are known

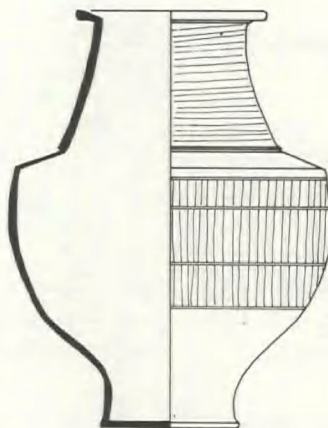


Fig 2 Belgic Urn from Chicksands (¼).

from Bedfordshire, mainly from Kempston though other sites are represented (*Beds. Arch. J.* forthcoming), there are none which exactly parallel this one in shape, though the use of vertical striations on the main part of the body is a common decorative feature. Much of the Bedfordshire Belgic material is readily paralleled by urns of the Aylesford-Swarling group (*P.P.S.* 31 (1965) 241-367) and includes more of these types than was suspected in 1962. However, the Rowney Warren urn does not find a comparison there nor in the pottery of the rich 'Welwyn-type' burials (*Archaeologia* 101 (1967) 1-62). It is hoped the illustration of this vessel will elicit further information both as to its parallels and the other vessels from Rowney Warren.

COPLE

During ploughing of a field near Cople on 23 March 1969 a hoard of thirty-five silver coins of the 16th and 17th centuries was found at a depth of approximately 18 inches, with some scattered near the ground surface. The hoard was declared a Treasure Trove, and after examination and recording in the British Museum was returned to the finder as none of the coins was required for the national collection or for Bedford museum. Contents: Elizabeth I—2 shillings, 11 sixpences; Charles I—8 halfcrowns, 5 shillings, 2 sixpences; Commonwealth—1 shilling; Charles II—4 crowns, 2 halfcrowns. The latest coin was a crown of Charles II dated 1680. (*British Numismatic Journal* 1970).

DUNSTABLE

The Manshead Archaeological Society of Dunstable under the direction of C L Matthews are currently excavating a large timber building, of perhaps a post Roman date, on Friary Field, Dunstable. (*Manshead Magazine* 20).

DUNTON

The *Biggleswade Chronicle* have reported to Bedford Museum the find of a bronze flanged palstave without a loop in Dunton parish. It is hoped this find may be acquired for Bedford Museum.

EATON BRAY SP/969207

Examination of the five-bay north arcade of Eaton Bray church has revealed that the east respond, the most easterly pier and the column next to the most westerly have slightly detached shafts. The feature can be seen in the central pier of the westward looking views published in J Godber *History of Bedfordshire* (1969) pl. 17 and N Pevsner *The Buildings of England: Bedfordshire ...* (1968) 81-92, pl. 29. Examination of the four detached shafts on the two piers and the two of the east respond has shown these are wood, not stone. It may be suspected that the use of wood rather than stone is a prime factor in the lean of the arcade. The reasons behind the use of wood are obscure: either a dishonest mason or one supremely confident of his abilities as a civil engineer.

ELSTOW TL/058476

Excavations by G J Dring have continued on the kiln site at Mile End Road, Elstow.

ELSTOW Abbey TL/049474

Excavations on this site in its fifth season, 1969, were directed by David Baker for the Bedford Archaeological Society and Portsmouth Polytechnic.

- (a) No further lengths of the ? pre-Roman circular ditch were seen when the remaining available ground was trenched.
- (b) No further 5th/6th century pagan Saxon cremations were found, though the sample of late Saxon inhumations has been improved, as well as that of mediaeval burials around the east end of the church.

- (c) Work on the church to July 1969 has not altered the basic sequence, though a large robbed building probably of 12th century date was found south of the south quire aisle chapel, extending as far east as the main presbytery itself. This may be the Chapter House: however the modern churchyard as yet prevents the establishment of relationships between it, the eastern claustral ranges and the church.
- (d) The eastern claustral range has been shown to have moved westwards in the major 14th century reconstruction, unlike the other two ranges which expanded outwards. The evidence of first trenches at the southern ends suggested at least two phases of building within each of the two main periods: the earliest rere-dorter with its drain has been located.
- (e) A complex series of outbuildings was found to the south of refectories and dormitories, with at least five of six phases, and likely to have had timber superstructures. Investigation will continue in 1970.
- (f) A resistivity survey was made south-west of the main claustral area in preparation for work in 1970.

FELMERSHAM

The metalwork and pottery from Felmersham (*Antiqs. J.* 29 (1949) 37-61; *Beds. Arch. J.* 4 (1969) 81-82) have continued to receive attention. Apart from exhibition of the bronzes in the exhibition of Celtic Art at the 1970 colloquium in Edinburgh and subsequently at the Hayward Gallery, London, attention has been focused on the reconstruction of the metalwork and the nature of the deposit. The fish-head spout (*Beds. Arch. J.* 2 (1964) 74) has been studied and found to be a wine strainer spout most probably fitted to one of the two extant bronze bowls, with the segmental plate as a cover (*Antiqs. J.* 50 (1970) 86-88). The reconstruction of this vessel suggests that the interpretation of the deposit as a bronze-smiths scrap hoard may well be untenable. It seems more probable that a deposit of a wine strainer, a wine bucket, a bronze plated wooden box together with an extensive deposit of pottery is more probably a burial. (*Beds. Arch. J.* forthcoming).

GREENFIELD

In 1965 a group of Roman pot sherds were brought by Mr Majewicz into Bedford Museum for identification. Found during excavations for a gas pipe-line at Greenfield, they were deposited by the finder in the museum. While none is sufficiently distinctive or complete to merit illustration, the group deserves some record. Fragments of five vessels were brought in (Bedford Museum 65/B/720-724).

The first (65/B/720) is the remains of a hunt cup (height 8.4.cm.) in Castor ware, dark surfaced on the upper part but red on the lower. Only half the design is extant: a hare in full flight done in barbotine. There is a similar cup from Putnoe, Beds., now a number of joined sherds in Bedford Museum, and another from Hauxton, Cambs., whose dating is suggested as A.D. 120-230. (*P. Camb.A.S.* 51 (1957) 16 no 1.a. fig 8).

The second and third vessels are both samian ware of Dragendorf form 33. The smaller (65/B/721) is without a stamp; the larger (65/B/722) is stamped C-IPPI-M. The form is not easy to date within the late first to second century dating usually ascribed. Other cups of the form in Bedford Museum are a wall sherd from Putnoe (unnumbered); an unprovenanced cup (B.M.21) with the stamp ... VINOS; and one from Biddenham (3386) stamped TIBERI-M.

The other pieces from Greenfield are the upper portions of a small jug in yellow ware (65/B/723) and a wall fragment from a coarse grey vessel of Belgic type (65/B/724).

HARROLD, Lodge Farm SP/933553

Excavations were conducted here during September 1969 by A E Brown of the University of Leicester on behalf of the Ministry of Public Building and Works, on the site of a Roman pottery manufacturing establishment located by members of the Wolverton and District Archaeological Society (*Bull. Northants. Fed. Arch. Soc.* 3 (April 1969) 10). An area of some 80 square metres was cleared, revealing two pottery kilns of updraught type and what was probably the stoke hole of a third. The furnaces of both kilns contained examples of large jars in a pink shelly fabric, of forms dateable to the middle and later years of the first century AD. Both kilns have been damaged by the later digging of pits over 2 metres deep, presumably for the extraction of clay for pottery; these pits, of which four were located, were filled sub-

stantially of loose limestone, but their upper levels contained domestic rubbish and pottery of the fourth century AD. This pottery was similar in fabric to the 1st century material. Pottery from the dense surface scatter suggests that this factory was producing coarse shelly wares throughout the Roman period, and it is hoped to test this idea by further fieldwork and excavations during 1970.

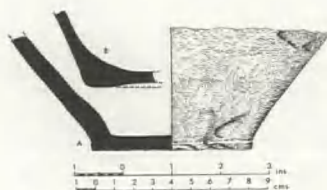


Fig 3 Collared Urn Bases from Hinwick (¼).

HINWICK: Bronze Age Cinerary Urns SP/928612 J Dyer reports that during 1969 a box of fossils, rocks and curiosities found in the attic of Dunstable Road Primary School, Luton, was sent to the Archaeology and History Department at Putteridge Bury College of Education for identification. Amongst the contents was the complete base of a Bronze Age cinerary urn, and a sherd from the base of a second similar urn (fig. 3). Both pots were coarsely made in orange shell and flint-gritted ware. The complete base shows the impressions of what appear to be two or three ears of grain, at present unidentified. From an almost illegible label on the larger base it is possible to ascertain that the urns were found in the northern corner of Great Close field at Hinwick, some four or five from the top hedge, and enclosed in a head of stones. Other details cannot be deciphered. The site of the find lies at about 310 feet above sea level, on the eastern side of the Roman road which runs south from Irchester, at N.G.R. SP/928612. Other material in the box of curiosities associates the find with R.R.B. Orlebar of Hinwick House and suggests a finding date early in the present century. How the material reached the attic of a Luton school remains a mystery. The pottery has been placed in Bedford Museum.

LUTON

Commercial redevelopment of the central area of Luton is being watched by Luton Museum.

LUTON

T P Smith has made a preliminary investigation of the house types connected with the Luton hat industry. All houses were terraced. The basic type, current 1860-70, had two downstairs rooms, with a stair between rising from a small lobby between the two rooms. At the rear was a narrower extension, with both a downstairs and an upstairs room, each entered directly from the house. The first modifications were to separate the kitchen and downstairs workroom, to put a narrow passage between each pair of houses to give access to the rear yard and to insert a passage beside the back bedroom to give access to the upper workroom. The second type was current 1870-1900. A development, mainly dating to 1900 to 1914, was the house with a wide passage, with a bedroom over.

MAULDEN: Ruxox Farm TL/051363

The Ampthill Archaeological Society have continued investigations of the Romano-British settlement at Ruxox Farm. The prehistoric finds, mostly flints, are noted elsewhere in this journal. Other important items include the bronze handle of a late Roman knife, decorated in relief with a hound chasing a hare.

MEPPERSHALL TL/138364

Destruction of the north-west side of a medieval fish-pond in 1967 was observed by J Dyer who reports a bank of clay without rivetting or lining of either wood or stone. It is supposed any associated structures would be to the south of the site, near the present rectory, as only nineteenth century pottery was found on the site watched.

PAINTED POTTERY

Two sherds of late pre-Roman painted pottery have been discovered in the collections of Bedford Museum. One is without an exact provenance; the other is from Sandy.

RAVENS DEN: Mowsbury Hill, TL/067533

G J Dring, for Bedford Museum, is investigating this moated site which has also produced Iron Age pottery.

SHARNBROOK

One of the few pieces of medieval pottery from Sharnbrook in Bedford Museum is the handle of a St Neots ware firecover; Firecover (fig 4); handle and adjacent part of top; black core with shell and some stone grit, stone grit visible on under side of top; light red surfaces, fading in some places to a deeper red-purple; under side blackened especially round smoke holes; unglazed; on top decoration of scored sgraffito grooves up to 40.mm. long, of 1.mm. average depth, and 2.mm. average width; decorated on handle with thumb pressings at junctions of top and handle to disguise luting; handle divided in three by central depression, with the ridges on outside being pressed into undulations; four scored grooves 13.mm. long, 1.mm. deep, and 2.mm. wide on higher ridge; 35 punctuations to let out air during firing, distributed 9 on central depression, 11 on lower ridge, 15 on higher ridge.

This is the second St Neots ware firecover to be published. The other is fragments of a more complete example from Brafield-on-the-Green, Northants. (*J. Northampton Mus.* 6 (1969) 51-53). Both are among the earliest known firecovers: a type which is found throughout the medieval period. Another local example is the sides and ridge of one from Cauldwell Priory, a sherd in a hard, black, sandy ware, now in Bedford Museum. (For a general discussion of firecovers see *Archaeologia* 102 (1969)).

STOTFOLD

F W Kuhlicke reports the find of a flat bronze (?) axe without decoration from Stotfold: it is hoped this object, now in private possession, will be secured for exhibition in Bedford Museum.

STOTFOLD TL/223364

D C King reports the discovery of Roman finds from Stotfold in August 1969. Post-holes apparently set in a levelled gravel area were discovered during building development. Finds include Belgic sherds; much samian; including a piece with the stamp CIOE; castor ware in some quantity; a puddingstone quern; many nails; and four metal objects. These were two bronze brooches, a group of niello domed studs, once attached to a leather object, and a metal band with silver facing with a scene depicted on it.

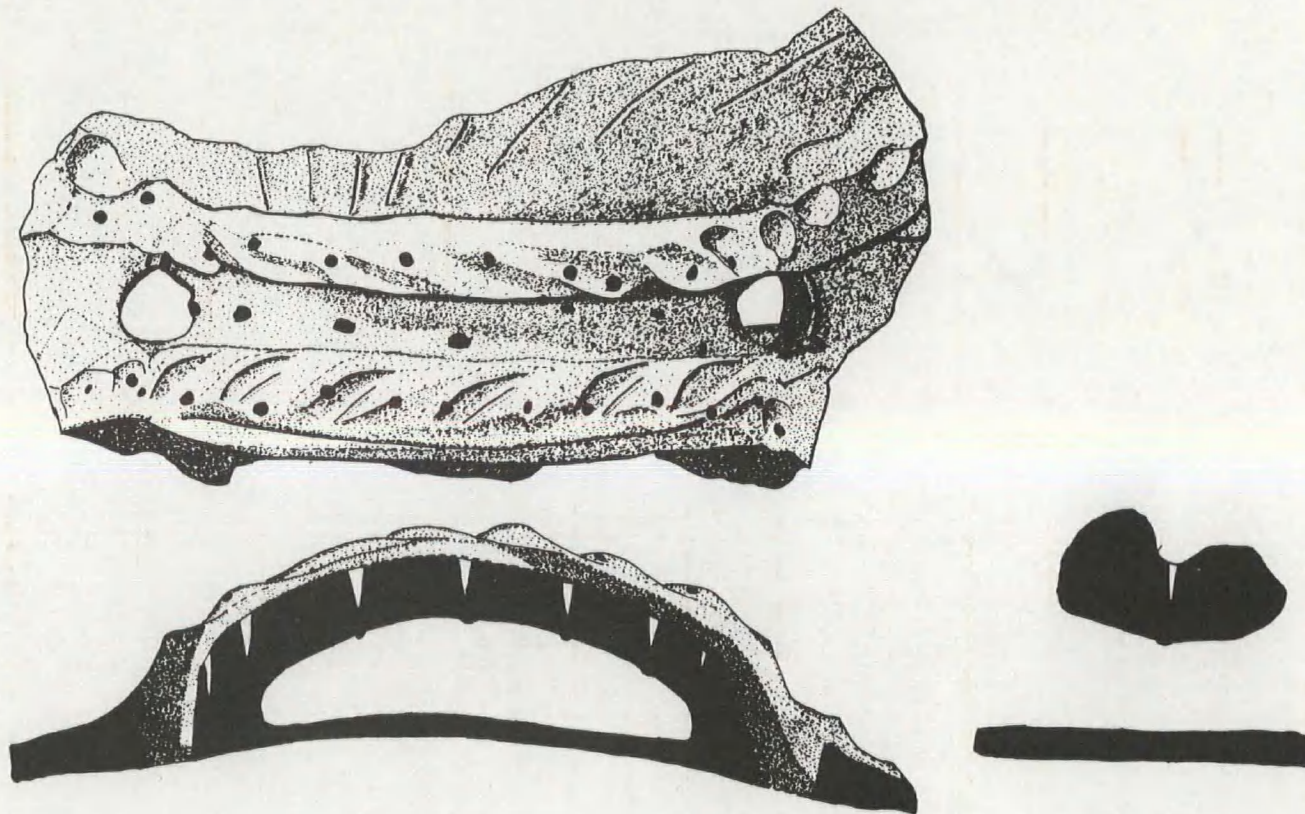


Fig 4 Firecover handle from Sharnbrook ($\frac{1}{2}$).

THURLEIGH TL/052585

Investigation under the direction of D N Hall is proceeding on the interior of Thurleigh Church, with a view to elucidating the history of the structure.

TODDINGTON

The late cruciform brooch from one of the two Anglo-Saxon cemeteries at Toddington which is now in the Cooper-Cooper collection of Northampton Museum (number 199/1955-56) has been drawn and studied (*Med. Arch.* forthcoming).

WOOTTON TL/0045

In September 1969, a group of Romano-British pot sherds found at Wootton were presented by T Cory, Canon's Close, Wootton, to Bedford Museum. There are three vessels (Bedford Museum 69/B135-137).

135 (fig. 5.135) A flagon, light buff-coloured ware, in many fragments, lacking parts of the body and upper portion of the handle, reconstructed as 22.0.cm. high with a base diameter of 7.8.cm. and a rim diameter of 6.2.cm. This second century type of bulbous flagon is found elsewhere in Bedfordshire: in a very similar ware from Kempston, a vessel in the grave group of 31-1-1928 (Bedford Museum 3291); and two from Putnoe (Bedford Museum, unnumbered) one in this light buff ware, one in a light pink ware.

136 (not illustrated) the base of a jar in a hard, thin grey fabric, common in the district.

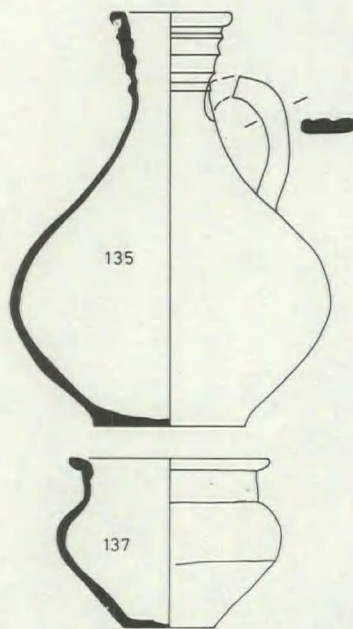


Fig 5 Pottery from Wootton (¼)

137 (fig. 5.137) An Iron Age jar of black surfaced ware, height 9.0.cm., base 4.8.cm., rim 10.4.cm. This vessel is almost identical to one from Kempston found in 1863 at the time of the discovery of the Anglo-Saxon cemetery (Bedford Museum 3679). These are the first archaeological finds reported from Wootton. One hopes that the indications of pre-Roman Iron Age and Romano-British activity they give can be more fully substantiated.

Reviews

History of Bedfordshire, 1066-1888 by Joyce Godber (Beds. C.C. 1969, £3.00)

First impressions related to a vision like a Phoenix rising out of the morass. For so long, serious scholars working on Bedfordshire have laboured like Christian in the Slough of Despond, relying on the labours of the pre-World War I generation of scholars that produced the three volumes of the *Victoria County History of Bedfordshire*, respectively in 1904, 1908 and 1912, supplemented by the volumes of the *Bedfordshire Historical Record Society*, the *Bedfordshire Magazine* and more recently the *Bedfordshire Archaeological Journal*. The County Archivist Emerita has now altered this: a fine volume, finely produced, that is the *History of Bedfordshire, 1066-1888*. Now it will be for other, less endowed counties to look, to admire and to say "would that our shire had been so well served".

Of course, an archaeological reviewer may cavil at the opening chapter, entitled 'Before the Conquest', but who would doubt that the changing viewpoints over the last half-century on Anglo-Saxon archaeology leave all bar the specialist in that field at times perplexed and baffled as one tries to relate a paper of 1962 to one of 1964 or one of 1966, let alone the problems when relating an even older study to present day viewpoints? This, specialist, field is not Miss Godber's and it is only right that her attempt to tread the Strait Path through this should have taken the form it did; an account of each cemetery from the most recently available account of it. If anything, this serves to demonstrate our changing interpretations in a field where the greater percentage is still ignorance.

Equally it would be petty for a reviewer to point to those areas where research subsequent to Miss Godber's book has deepened our knowledge. This is as it must be but we shall always remember that here was one of those rare volumes that without pretension set itself to do the near impossible—to write the history of a single English county for the last millenium and more within a quarter million words—and achieved it! Now we may walk from the House Beautiful to the

Interpreter's House and still remain within the confines of Miss Godber's book. There will be points where it will be modified, where new interpretations replace older ones, where fuller publication of the source material will amplify a hazy outline, but these are the ways and the objects of historical research and publication: to deepen men's knowledge of the past. But for Bedfordshire's past, we will turn, as we still turn to Dugdale for Warwickshire or Nichols for Leicestershire, to Miss Godber's book for this century's remaining three decades and the decades still to come of the twenty-first and succeeding centuries, Miss Godber, you have done the county proud; may we, your friends and admirers, continue with you to do it proud by solid scholarship, well-written and superbly illustrated, as we hope your scholarship will be rewarded in the ways it should be: by long and fruitful use — and by your University.

D.H.K.

Discovering Regional Archaeology: Eastern England. By James Dyer (Shire Publications, 1969, 22½p)

This little book is the first in a projected series of regional guides—by various authors—designed to accompany James Dyer's recent handbook *Discovering Archaeology in England and Wales* (also published by Shire, and reviewed in our volume IV by D H K [ennett]). Usually, such guides have to give over much space to a general introduction to the subject; but Dyer has had the good idea of giving this information in a separate book—that already mentioned—thus allowing the authors of the regional guides to come to grips with their subject straightaway.

The book covers the counties of Bedfordshire, Buckinghamshire, Cambridgeshire, Essex, Hertfordshire, Huntingdonshire, Lincolnshire, Norfolk, and Suffolk. A number of important sites from each of these counties is mentioned, and a brief, though on the whole remarkably adequate, description of each is given. The O.S. map sheet and grid reference

are given and the location of each site mentioned. Since the book is intended primarily for the travelling lay archaeologist this feature of the book is particularly valuable. The principle of selection appears to be that all important prehistoric sites are described, and *some* important Roman and Saxon sites are also described. Such a principle is obviously needed in a short book like this, but I think that the principle should have been stated at the outset. The author is most at home in the prehistoric period (which is, in fact, his speciality); on (e.g.) Anglo-Saxon churches he is less good; in particular I must stress that the surviving work at Wing is manifestly of 7th or 8th century date (Taylor period A), and not, as Dyer states, of 10th century date, though it is true that alterations were made in the latter half of the 10th century or in the 11th century (Taylor period C). And whilst on the subject of Saxon churches, surely Clapham, in Bedfordshire, is worthy of mention?

The line drawings, sadly, are not up to the standard of the text. Often they have a grubby look, and the symbols are far too large; this latter point is especially noticeable on the map of Lincolnshire, with its liberal sprinkling of huge neolithic pots. On the map of Bedfordshire one of these pots is apparently falling over! Further, the key to the symbols (inside front cover) is—at least in some cases—misleading; for instance, it suggests that Viking ships have been found at Renhold and Shillington in Bedfordshire (which they have not). To be sure, this impression will be dispelled by reading the text, but it is surely better not to give the impression in the first place.

Compensating for the less than good quality of the maps is the superb selection of photographs. All are of very good quality—even that of the 1883 excavation of the Taplow barrow. This latter is particularly absorbing. The choice of photographs is judicious. The only fault one can find is in the too heavy dotted line used to show the position of the rampart of the Roman town of Ancaster (pl. 15).

What does emerge from this publication is that it is written by a man who knows his subject, who has the desire to impart this knowledge to others, and whose desire is matched by an obvious ability to do this. So far as content goes it will (I think) serve well those for whom it is intended.

At this point a reviewer normally concludes. But in this instance I must say something about the

production of the book. Dyer has been done less than justice by his publishers. First, the book is skimmed: the map of Bedfordshire looks as though it has been placed in a convenient space and that of Cambridgeshire almost bumps into the text above it! And was it really necessary to print the last page of text on the inside back cover? Secondly, the pages of my copy are already beginning to come out; this is always a sad thing, but particularly when the book is intended for a good deal of use in the field. Of the mediocre cover drawing I shall say nothing.

Dyer's useful and well thought-out text deserves better treatment from his publishers.

T.P.S.

Anglo-Saxon Pottery and the Settlement of England by J N L Myres (Oxford at the Clarendon Press, £5.00).

Anglo-Saxon pottery has for long been the special field of the President of the Society of Antiquaries and Bodley's Librarian Emeritus. It is therefore fitting to welcome his Rhind Lectures for 1965 on his especial field. Here is presented an account of the nature and distribution of the material; its formal and decorative typology; an historical analysis of the settlement of England, divided by Myres into three phases; and some aspects of the social and economic features of the settlement. Embodying a lifetime's research, Myres' views command respect but when, for instance, he is discussing Buckelurnen one finds his use of the evidence of associated brooches and other metalwork less than convincing. It is strange to present as 'fifth century and predominantly in the second half of it' the birth of a type whose main associations, as Myres' footnote lists, are with objects of the second half of the fourth century.

Myres has given us also the fullest publication yet of the Anglo-Saxon pottery of England. Some 346 pots are illustrated by line drawing and thirty by half-tone plate. It barely represents a tithe of the four thousand that one hopes Myres will publish as a *Corpus Vasorum Saxonum* but the pieces selected have the good blend that is the familiar, like the Sandy Buckelurnen, and the unknown, like the plain vessels from Kempston or the small ones from East Shefford. Certainly

the illustrations are good, and, as most of Myres' drawings, informative about the vessel shown.

The price, however, is something this reviewer finds a little steep; five pounds for 267 pages with 51 line drawings and eight plates with 31 half-tones. Even in these days of high learned book prices, a volume that should be on every archaeologist's shelf may gain less than its due use through no fault of its distinguished author who has given us his considered verdict on the field of study that has been his lifetime's work. We are grateful for this: it is with renewed anticipation and interest that we await the Corpus that must surely follow the Rhind Lectures.

D.H.K.

Discovering Castles in Eastern England. By John Kinross (Shire Publications, 1968: 22½p)

Since the fairly recent formation of Shire Publications (Tring) a number of interesting and helpful little books has been produced: all are aimed, of course, at a non-specialist public. Several of these are of general archaeological interest; such is *Discovering Castles in Eastern England* by John Kinross, which sets out to describe briefly some of the more outstanding castles in the region (Beds., Cambs., Essex, Herts., Leics., Lincs., Northants., Norfolk, Rutland, and Suffolk). In this review I shall deal only with the general matters and with the Bedfordshire material.

The book opens with a short introduction presumably designed to set the scene, as it were, for descriptions of individual castles which follow. Unfortunately, Kinross seems not to be fully cognizant of the more recent research into the question of castle origins in this country; for instance, there is no mention of ring-works, which are coming to seem as important as mottes in the development of the castle. Moving to a slightly later time, we may note that Kinross makes no mention of those motte-and-bailey castles which were abandoned after the conquest: very many of the smaller motte-and-bailey and ring-work castles must have suffered this fate. Some mention should also have been made of those stone keeps—such as Colchester (c. 1080) and Castle Rising (c. 1140) in the region covered by the book under review—which were constructed of stone *de novo* and so did not replace earlier mottes on the same

site. For the later Middle Ages Kinross is a little better; though the gunports at Kirby Muxloe (1480) are scarcely early (*pace* Sidney Toy) gunports appear in the Canterbury Westgate and at Southampton at least a century earlier. By 1480 they were quite common, occurring at (e.g.) Herstonceux, Raglan, Warwick, and Someries. Kinross then goes on to deal with defences (but not *castles* surely?) in the Civil War period.

Of course, a short introduction must of necessity leave out much of importance, but Kinross has left out far *too* much important material. One is left wondering whether an introduction of little more than one small page is really any better than no introduction at all.

A short bibliography follows this introduction. This should prove useful to readers of *Discovering Castles*; it includes all the more important books at introductory level except (strangely) R. Allen Brown's *English Castles* (Batsford, 1962).

Bedfordshire is the first county to be dealt with in the section that follows. Bedfordshire is not rich in castle remains, and in consequence only one building is dealt with fully, though seven others are mentioned. The one receiving fuller treatment is Someries Castle, near Luton; as Kinross points out, this is not really a castle at all but a manor house. This building, until recently, had received less attention than it deserves and it is pleasing to see its inclusion in this book, together with an excellent photograph by J.W. Whitelaw. It is therefore particularly sad to have to record the entirely hopeless muddle into which Kinross has got himself in dealing with this monument. Someries was not founded by Sir John Rotherham at all; the present brick building was started by John Lord Wenlock, and was later added to by Thomas (not John) Rotherham. The estate of Someries itself existed much earlier than this, at least as early as 1309, when it is mentioned in the *Calendar of Inquisitions Post Mortem*. Kinross slightly misquotes Leland's *Itinerary* relating to Someries, and his inserted date of 1448 is incorrect: the *Close Rolls* record that Wenlock received Someries in 1464.

Kinross has obviously not read any of the more recent considerations of Someries (e.g. by this reviewer in volume 3 of this JOURNAL). And despite his careful instructions on how to get to the site he seems not to have taken the trouble himself. Otherwise he would have seen that there is no 'inclined footway that corkscrewed to the

top', but a perfectly normal newel staircase. The 'whispering-pipe which carried a whisper from the basement to the parapet' is sheer nonsense: this is a semi-circular hand-hold built into the brickwork. The chapel is not 'the first building we come to' if the site is walked around—unless one enters through the chapel window! Kinross also mentions the 'squint which once looked into a large south hall', but there is no evidence that any room which may have existed there was a *hall* (a term not to be used carelessly).

Having finished with Someries, Kinross makes mention of Ampthill, Bedford, Clophill, Eaton Socon, Odell, Risinghoe, and Yelden. It should perhaps have been stated that the motte at Bedford may still be seen. At Eaton Socon excavation by C.F. Tebbutt and Peter Addyman in 1962 showed not that Castle Hill was a Saxon earthwork, but that a wattle and daub hall possibly of Saxon (but equally possibly of early Norman) date had existed on the site; similar buildings had been cut through when the later motte had been constructed. There is no evidence that the mound at Risinghoe is of Saxon date.

A useful feature of the book is the inclusion of the name of the owner of each of the more important castles described, together with hours of admission where these are applicable. At the end of the book is a helpful glossary, generally adequate, although 'drawbridge' should have been distinguished from 'turning bridge' by mention of chains in connection with the former. The term 'hall' might have been included to advantage.

A book of this sort is not intrinsically worth reviewing at such length, but it is obviously intended for, and will probably get, a wide

public; it is important therefore that its many errors and inadequacies be pointed out. The series is not intended, of course, for serious scholars and specialists, but that is no excuse for sloppy standards and lack of scholarship.

This small book has some potential—within its clear limitations—and I sincerely hope that there will be a chance for future revision in order to eliminate its far too numerous infelicities.

T.P.S.

Miscellanea edited by Joyce Godber (*Bedfordshire Historical Record Society* 49 (1970) £2.00 to non-members).

As this volume goes to press, the forty-ninth volume of the *Publications of the Bedfordshire Historical Record Society* appears. Of its contents, there is much to interest the readers of the *Bedfordshire Archaeological Journal*. One article in particular will appeal to those with architectural interests: 'The building accounts of Harrold Hall' edited by John Weaver. Here is a paper that reviews the building of a large house, 1608-1610, and reminds the archaeologist who may dig such a post-medieval site that the documentary evidence is of vital importance and should be studied *before* the excavation commences, so that the questions asked of the site may be formulated in relation to what is known already. The economic historian will find evidence of stability of wage rates at the time of a lull in the Tudor Inflation and the general reader will be fascinated by the detail of the account. This and the other papers of the volume may be commended to our readers.

D.H.K.

The Bedfordshire Archaeological Council have copies of the following of their publications:
Bedfordshire Archaeological Journal 2 1964.

J Dyer: A Secondary Neolithic Camp at Waulud's Bank, Leagrave.

N Thomas: A Gazetteer of Neolithic and Bronze Age Sites and Antiquities in Bedfordshire.

J Moss-Eccardt: Excavations at Wilbury Hill, 1959.

W H Manning: A Roman hoard of Ironwork from Sandy.

G T Rudd & B B West: Excavations by Warden Abbey in 1961 and 1962.
with shorter notes; price £1.75.

Bedfordshire Archaeological Journal 4 1969

D N Hall & N Nickerson: Iron Age Pottery in north Bedfordshire and south Northamptonshire.

A Smallridge: A late eighth century disc from Mavourne Farm.

D H Kennett: St Neots ware from Bedford: Jugs and Bowls.

D B Baker: Excavations at Elstow Abbey, 1966-68.

N W Alcock: Timber-framed buildings in north Bedfordshire.

J B Hutchings: Milton Ernest—a field survey.
with shorter notes; price £2.10.

Bedfordshire Archaeological Journal 1 1962 and 3 1966.

are currently out of print but when sufficient orders have been received arrangements will be made to reprint them. Further details from the Hon Treasurer, 63 Ampthill Road, Maulden, Bedford, from whom back numbers may be purchased at the prices stated.

