

DUNSTON'S CLUMP AND THE BRICKWORK PLAN FIELD SYSTEMS AT BABWORTH NOTTINGHAMSHIRE: EXCAVATIONS 1981

by

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SUMMARY

A cluster of enclosures attached to the brickwork plan field systems was sampled; most of one enclosure, and the intersections of the main field ditches with the enclosures were investigated. Three phases (I–III) of occupation were identified; nearly three quarters of the features within the excavated enclosure could be assigned to a particular phase. In phase I the enclosure was defined by a substantial ditch and large pits were dug; in II, a timber building within its own yard was constructed inside the enclosure; in III, the enclosure ditch was replaced by a palisade and the area partitioned with at least three timber buildings erected within the new divisions. The few artefacts recovered are difficult to date precisely, but pottery of the late 1st century B.C. to mid 1st century A.D. came from phase II features, with 2nd to 3rd century A.D. pottery from phase III. The charred wooden remains of a box with iron fittings were recovered. Few bones survived in the acidic subsoil, but the charred plant remains of both cleaned domestic crops and animal fodder were found.

INTRODUCTION TO THE FIELD-SYSTEMS AND EXCAVATIONS

In 1980 Dr. Derrick Riley published *Early Landscape from the Air*, the result of six years flying and mapping of crop marks on the Sherwood Sandstones of north Nottinghamshire and South Yorkshire. These crop marks showed a previously unsuspected organised system of land division confined to the sandy soils above 7.6m Ordnance Datum that could be traced in patches in an area at least 40km from north to south, and 8km from east to west.¹ Dr. Riley classified the field system into three types. The most common was the *brickwork plan* fields which were formed by a series of long parallel boundary ditches, usually aligned roughly east–west, with short cross boundaries dividing the strips into fields. Their extent and regularity led to the suggestion that these fields were laid out according to a plan perhaps based on the rivers, since the long boundaries were approximately at right angles to and between parallel flowing rivers. Smaller single or groups of enclosures in the field systems were thought to be farmsteads. The Dunston's Clump enclosure cluster (called after a nearby wood) was one such group (Fig. 1). Riley's second type was the *nuclear plan* fields radiating from a central enclosure, identified in the Rossington area of South Yorkshire only. The similarity of the field dimensions, and the patterns of blocks of fields between long boundaries led Dr. Riley to suggest that the *brickwork plan* and *nuclear plan* field systems were related. The third type, the *irregular* fields were not ordered in a systematic manner. The enclosures associated with them were subrectangular or oval. These *irregular* fields were often on low lying ground at the edges of the *brickwork plan* field systems.

There were few clues to date this system of land division. Some *nuclear plan* fields at Rossington were crossed at an acute angle by the Roman road from Lincoln to Doncaster, implying that this field system was earlier than the road, and that it was laid out either in the early Roman period or in the pre-Roman Iron Age. This early date cannot



FIGURE 1

Dunston's Clump: location maps and brickwork plan field systems as plotted from aerial photographs. After Riley, *Early Landscape from the Air*, 1980.

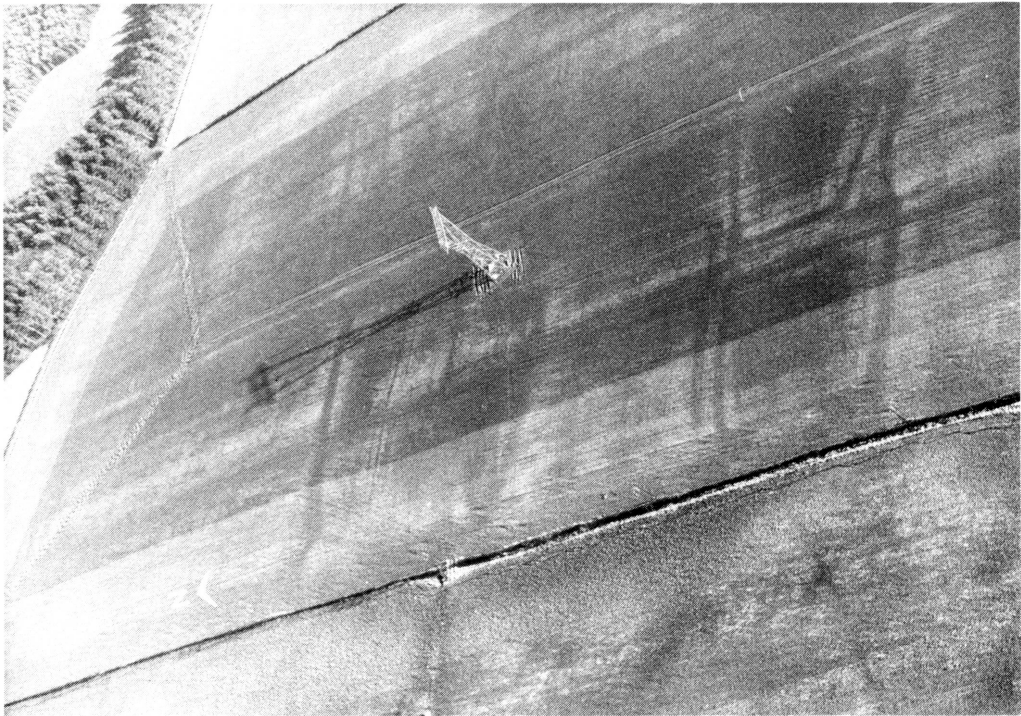


PLATE 1

Dunston's Clump: soil marks photographed December 1975 by Derrick Riley.

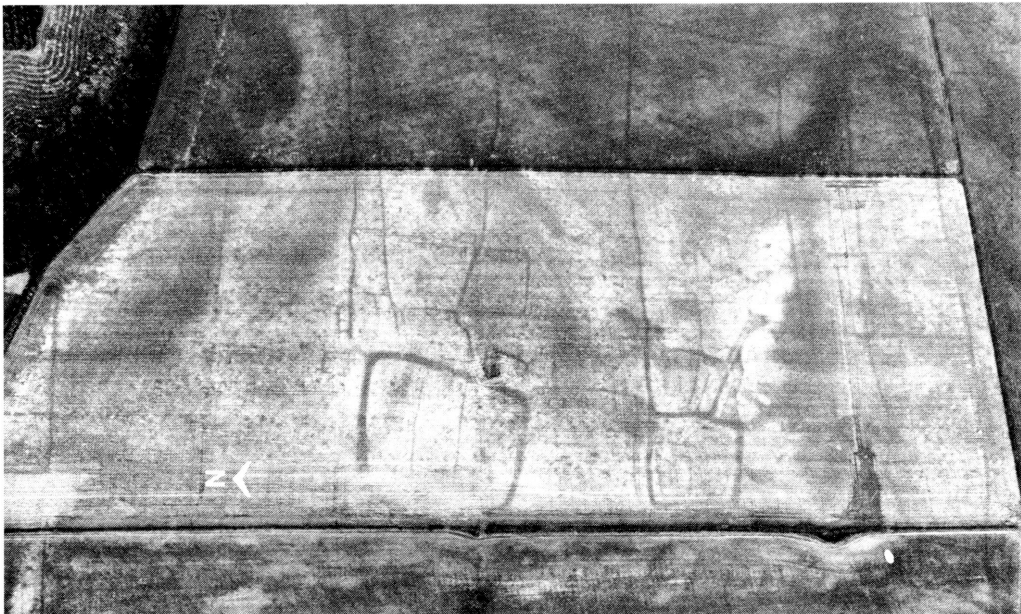


PLATE 2

Dunston's Clump: crop marks photographed July 1979 by Derrick Riley.

automatically be applied to the *brickwork plan* field systems. Trial trenches dug in 1976 through *brickwork plan* field ditches and enclosures by J. May and J. Samuels recovered later Romano-British pottery.² Larger scale excavation would provide information not only of the date and purpose of the investigated site, but also of the related field systems.

The excavations carried out by the Trent Valley Archaeological Research Committee (now Trent & Peak Archaeological Trust), and reported here, form part of a long term project for the investigation of the field systems. The excavations and the writing of this report were funded by the Department of the Environment (now Historic Buildings & Monuments Commission for England). The enclosure cluster at Dunston's Clump was chosen because the relationship between the enclosures and the field system seemed clear on the aerial photographs; the southern enclosure (2) appeared to be contemporary with the field system as the enclosure ditch and field system ditch were on the same alignment, whilst a field boundary curved to meet the northern enclosure implying that the latter was the earlier (Plates 1, 2 and Fig. 2). Dunston's Clump was moreover one of a number of enclosure clusters of similar plan and might be representative of a distinctive type. Finally, it was threatened by modern farm work: deeper ploughing had resulted in soil marks being observed showing that the upper part of the archaeological features had been destroyed (Plate 1).

The brickwork plan fields which include the Dunston's Clump cluster lie on a broad north to south ridge between the rivers Ryton and Idle. This ridge is dissected by streams and is gently undulating. The Dunston's Clump enclosure was on a south facing slope on the eastern side of this ridge. Enclosure 1 was sited on the top of a small knoll approximately half way down the slope, with Enclosure 2 on a roughly level bench just below (Fig.2). The crop marks showed two ditched enclosures (1 and 2), a small square enclosure (3) just to the north of Enclosure 2, and a series of enclosures to the east (Fig. 2, Plate 2). Enclosures 1 and 2 probably formed the focus of the farmstead. The eastern enclosures had slighter ditches similar to the field system ditches and are provisionally interpreted as small fields or paddocks. A small enclosure (4), with part of a circular cropmark, just to the south west of the enclosure cluster may have been part of this or another farmstead.³ The western sides of both Enclosures 1 and 2 did not appear as crop marks, but the west ditch of Enclosure 2 was located by excavation. These ditches were dug into a clay subsoil band which was not conducive to the production of differential crop growth and hence crop marks.

The excavation of Enclosure 2 was conducted over two seasons (9 weeks) in 1981. Two other, smaller areas were also excavated. The first was chosen to investigate the relationship of Enclosure 2 to the field ditch running from its north east corner (Fig. 3); the second to investigate the junction of Enclosure 1 with the crop marks seen on aerial photographs (Fig. 2). Fieldwalking on two occasions by the Retford Archaeological and Historical Society and T.V.A.R.C., had located a slight concentration of burnt cobbles and pottery in the south east of Enclosure 2. An area 20 × 20 m inside Enclosure 2 was stripped of ploughsoil by machine in January 1981 revealing a complex pattern of features, and the post holes of Structure 5 cut into the Sherwood Sandstones. The clarity of this structural evidence led to further excavations in October, when most of the remaining interior of the enclosure was stripped. The choice to investigate the structures meant that the entrance to the enclosure was not excavated; recent applications for funds to complete the excavation of the interior have not been successful.

The Sherwood Sandstones at this point are a pink, orange or red non-cohesive sand. A band of solid pink to grey clay described as boulder clay on the Geological Survey Map (sheet 101) lies adjacent and just to the west of the enclosure cluster. Periglacial features filled with a distinct light buff silty sand with many small pebbles were present in the top of

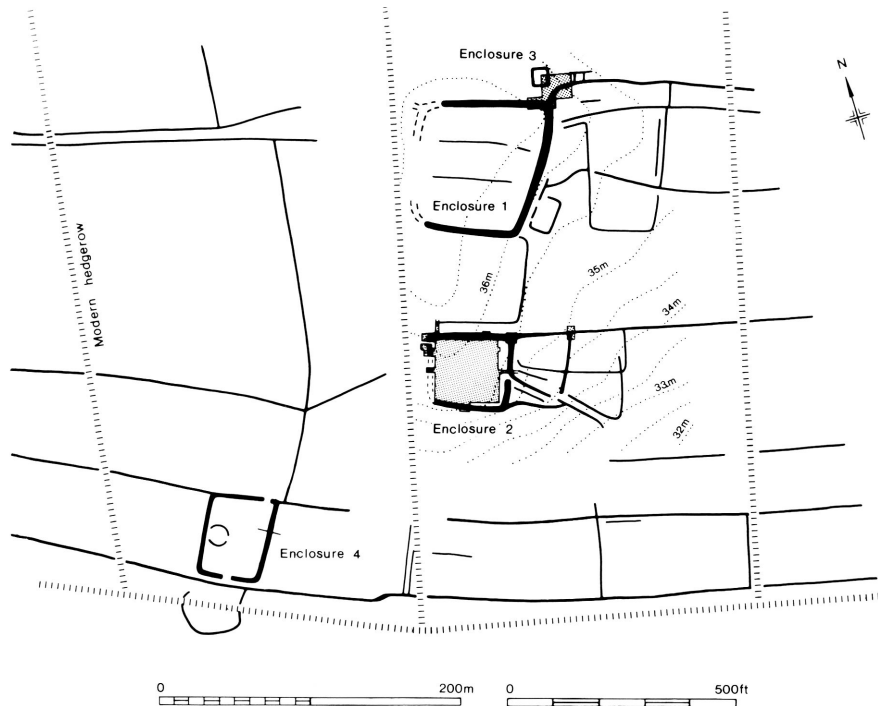


FIGURE 2
Dunston's Clump: cropmarks and soilmarks recorded by aerial photography with excavated areas stippled.
Scale 1:5,000.

the sandstones. All of the feature fillings were sandy in texture and contained varying amounts of silts, cobbles and pebbles. (In this report the word cobbles is used for large rounded blocks, usually larger than 100 mm in length, and pebbles for small rounded stones with a length of 10–90 mm. The cobbles recovered in the excavated features were not present in large numbers in the subsoil on the excavated part of the site, but could have been procured locally.) The fillings ranged from light pink-brown sands (redeposited natural sediments) to darker and siltier browns and blacks when containing charcoal. Most of the smaller features contained few pebbles or cobbles, so only colour and slight textural changes in the sand could be observed in the archaeological features and layers. Some animal activity since the abandonment of the features had blurred the edges of features and the different fillings within them. Where features were greater than *c.* 0.2 m in width and depth different elements, e.g. post pipes and layers could sometimes be determined; in many features slighter than this, distinctive elements could not be clearly demonstrated. The sandstones are freely draining and acid, so that only pottery and metal artefacts survive though the latter is poorly preserved, and wood, seeds and bone survive only when charred.

Total excavation was not possible, so the adopted strategy was to plan all features, to section most features and to record their profiles and stratigraphical relationships with other features. Only where particularly informative artefacts were suspected were they more fully excavated. Most features contained a few sherds of pottery only. Sampling for economic

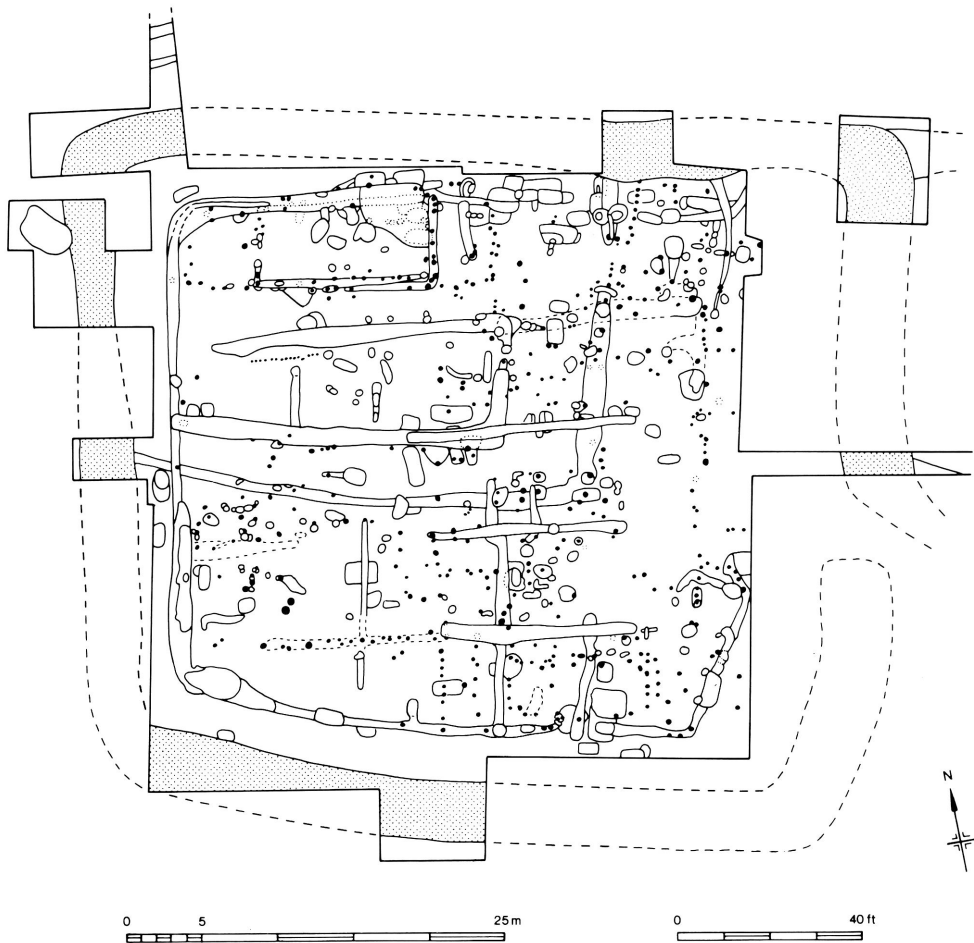


FIGURE 3

Dunston's Clump: all features recorded in Enclosure 2. Dashed lines: features with indistinct edges; dotted lines: features stratigraphically earlier; solid shading: small features. Scale 1:500.

data (charred seeds and bone) was carried out where soil samples of 2 kg or greater could be seen to contain charred material. Some features were not excavated at all; they were not thought to add significantly to the understanding of the site, e.g. isolated pits or further lengths of excavated features. Fig. 4 shows all of the features planned and the excavated portions. Each feature dug into the subsoil was allocated a unique site number (even if not excavated) which is used in this report. Where a number of individual features appeared to belong to one structure, a post-excavation structure number was given (1 to 11). These structure numbers may refer to buildings, fence or wall lines, or any groupings of features.

The archive, comprising the primary site records, the processed records and all artefacts, has been deposited at the Bassetlaw Museum, Grove Street, Retford. The primary site records include fieldwalking information, context sheets, site notebooks, site plans and sections, colour slides, black and white negatives and photograph record sheets. The

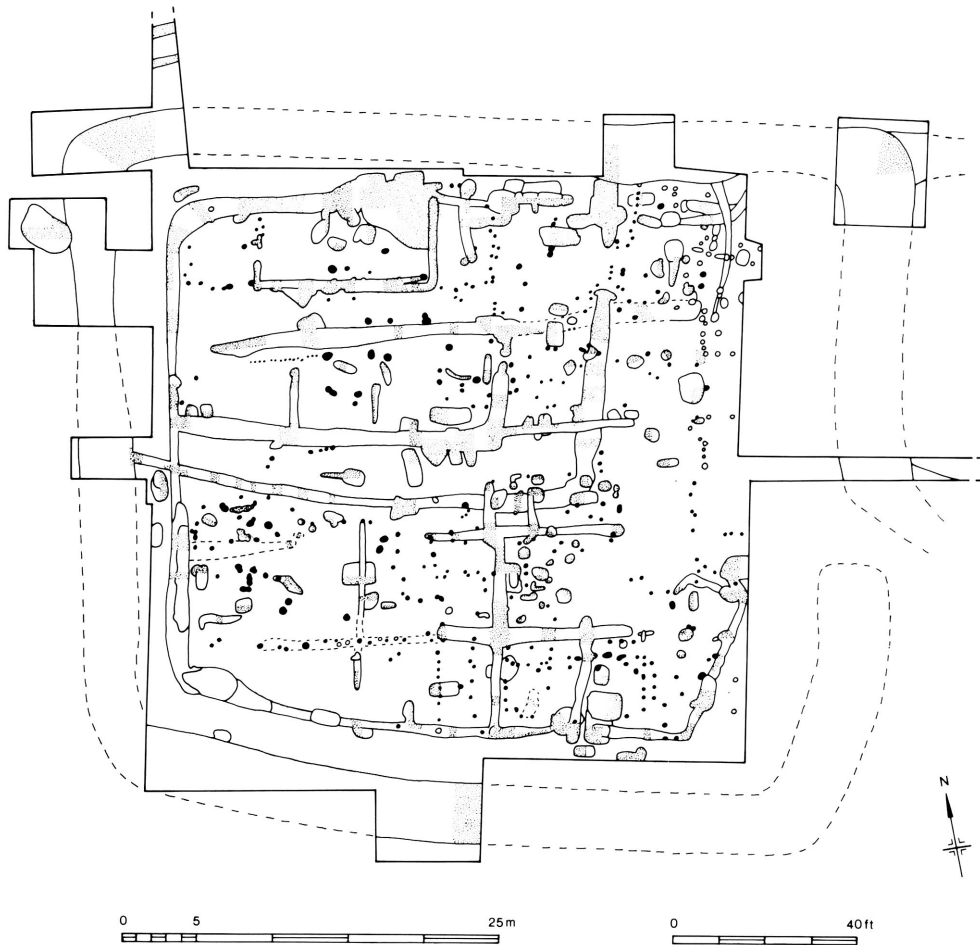


FIGURE 4

Dunston's Clump: features in Enclosure 2. Stipple: excavated features; solid shading: half sectioned small features; outline: recorded in plan only. Scale 1:500.

processed records include summary context sheets, key plans to the site and processed drawings, plans and sections, summary sheets showing artefact types by context and specialist reports. An introduction to the site records, the photograph record sheets and all the processed records except the specialist reports are available on microfiche at the National Monuments Record, Fortress House, 23 Savile Row, London and the Nottinghamshire Sites and Monuments Record, Trent Bridge House, Fox Road, West Bridgford, Nottingham.

Three phases can be identified from the stratigraphic relationships of three features; Structure 1, Trench 614 and Slot 612. This report is based on those phases as some 70% of the features could be assigned to a structure or phase. Within any phase, particularly phase III, there might have been several stages of development. The phases are dated by pottery

from the 1st to 3rd centuries A.D. Some of the features assigned to phases, particularly the pits, are not precise in that they may belong to either phase I or II, but the general sequence seems clear. In phase I the enclosure was defined by a substantial ditch with a number of deep rectangular pits inside it (Fig. 5). In phase II Structure 1, within its own yard defined by Trench 614, was constructed in the north west of the enclosure (Fig. 6). Features of phases I and II yielded only small numbers of pot sherds dated by analogy to a period spanning the late 1st century B.C. to the mid 1st century A.D. By phase III the original boundary ditch had almost filled up. It was replaced by Slot 612, interpreted as a palisade, which was dug through the earlier structure (Fig. 10). Inside the enclosing slot a series of divisions were made, in which were set a number of structures 2, 3, 4, 5, 6, (Figs. 10, 11). The pottery from the palisade slot and divisions of phase III was predominantly of the second century A.D. A midden 1492 confined within the area of the earlier structure 1 and palisade slot 612 had pottery dating from the late 2nd to the 3rd century A.D. Any substantial occupation of this enclosure after phase III was not represented by features dug into the subsoil. The unphased features are shown in Fig. 14.

EXCAVATIONS IN ENCLOSURE 2

PHASE I (FIG. 5)

Stratigraphy

Phase I is the earliest occupation and includes the enclosure ditch 750, with an entrance on the eastern side, and all those features which predated the erection of Structure 1 and its enclosure 614. A number of deep pits were dug and back-filled.

Enclosure ditch

The enclosure ditch 750 was *c.* 4 m wide and up to 1.4 m deep (Fig. 8e).⁴ No evidence for a bank constructed from the enclosure ditch upcast survived recent ploughing. If the phase I pits and the enclosure ditch 750 were contemporary, then any internal bank must have been denuded before the group of pits close to the inner lip of the ditch were dug. A bank on the outside of the ditch remains possible. In phase II the boundary of the yard 614 was dug into the ditch filling confirming the absence of an internal bank in this phase too (Fig. 6). All the layers of the ditch filling were sandy with many small pebbles; the primary layers of coarse sands suggested a rapid initial filling, followed by a stable period accumulating siltier layers and possibly some vegetation cover (Fig. 8e). A jar, of the cordoned neck type probably dating to the 1st century A.D. (cf. Fig. 17, no. 3), was found in the primary filling. While the entrance to the enclosure was not excavated, the soil marks recorded by aerial photography indicated a causeway on the eastern side approached by a ditched trackway (Fig. 2).

The north side of the enclosure ditch 750 apparently continued the line of the brickwork plan field ditch on aerial photographs (Fig. 2). The latest filling in the enclosure ditch had clearly truncated the field ditch, so they could not be proved to be contemporary. The field ditch was not found at the north western corner of the enclosure ditch within the excavated area.

Pits

The pits were rectangular and deep, with vertical sides and flat bottoms (Fig. 8i), and were filled with redeposited natural sands. The function of these pits is unknown. There was no evidence that they had been lined, but the lenses of coarse or silty sand on the bottom of most of the pits suggested that they were usually left open for a short while before being back-filled with clean sand. Most of the pits clustered inside the northern edge of the enclosure, with six

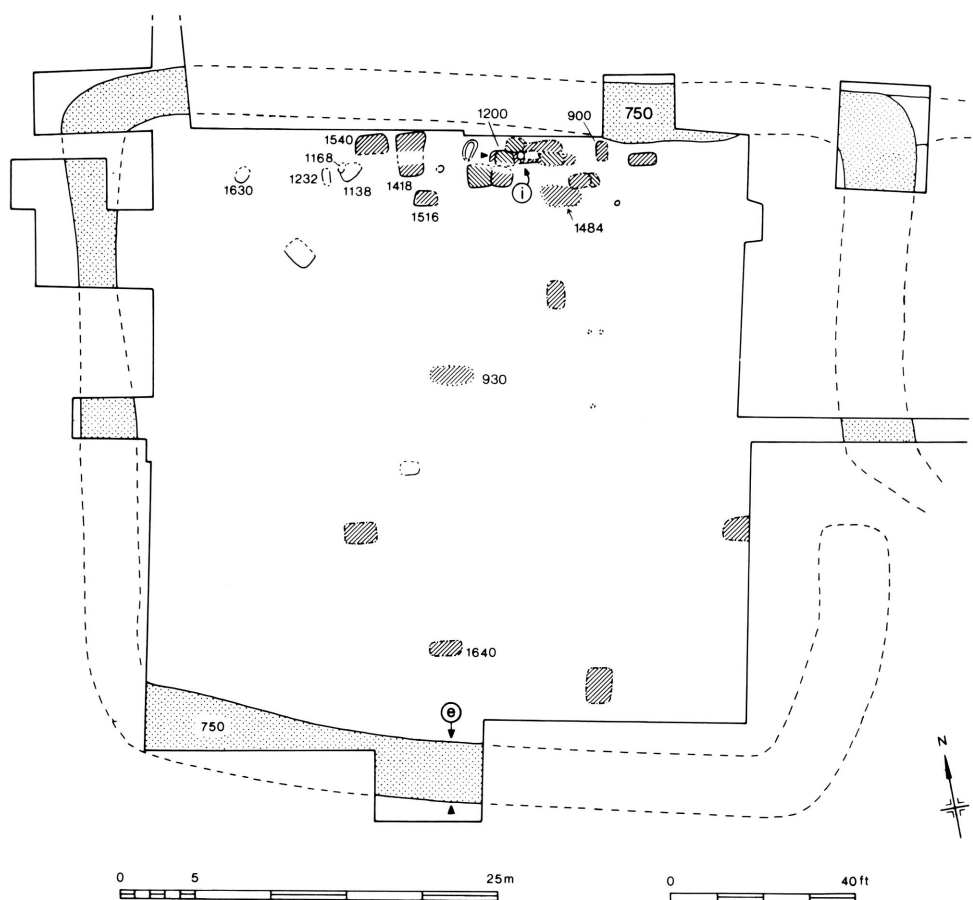


FIGURE 5

Dunston's Clump: phase I, Enclosure 2. Dashed line: feature edge removed; solid line: feature certainly of phase; dashed and dotted line: feature probably of phase; dotted line: feature assigned to phase on non-stratigraphic evidence; cross hatched lines: deep, rectangular shaped pits; solid shading: small feature (post pits and post pipes not differentiated at this scale); letters and arrows: positions of sections in Figs. 8 and 9. Scale 1:500.

single pits of the same shape elsewhere. The pits in the main group were dug on five distinct occasions, often through earlier ones. No pits were cut by the enclosure ditch in the area excavated: they are therefore presumed to be contemporary with the enclosure ditch. Three of these pits were earlier than Structure 1. The single pits cannot be assigned to a precise phase, but where stratigraphical relationships were observed, they were earlier than phase III.

Comment

No recognisable structural evidence survived, and the lack of occupation debris from the phase I features suggested that any domestic occupation was elsewhere at this time, perhaps to the north in Enclosure 1. The pits were mainly confined to one area of the enclosure, and seemed to be restricted to the earlier phases of activity. Their regular shapes with steep,

wall 1218 was truncated by Trench 612 (Fig. 9o, p). Trench 614: the palisade slot 612 was dug through the western end of Trench 614 (Figs. 3, 6).

Structure 1 (Figs. 6, 7 and 9)

Structure 1 was rectangular in plan and rebuilt at least once. Two periods of construction could be clearly shown in its southern long wall and supporting evidence came from the other sides. In the original structure the posts on the southern long wall were grouped into three lots of three, but were regularly spaced on the rebuilt structure. Entrances may have been through the south wall and also through the west wall of the rebuilt structure. Post settings outside the east wall of the main structure might have formed a yard or small annex, possibly of a lean-to type.

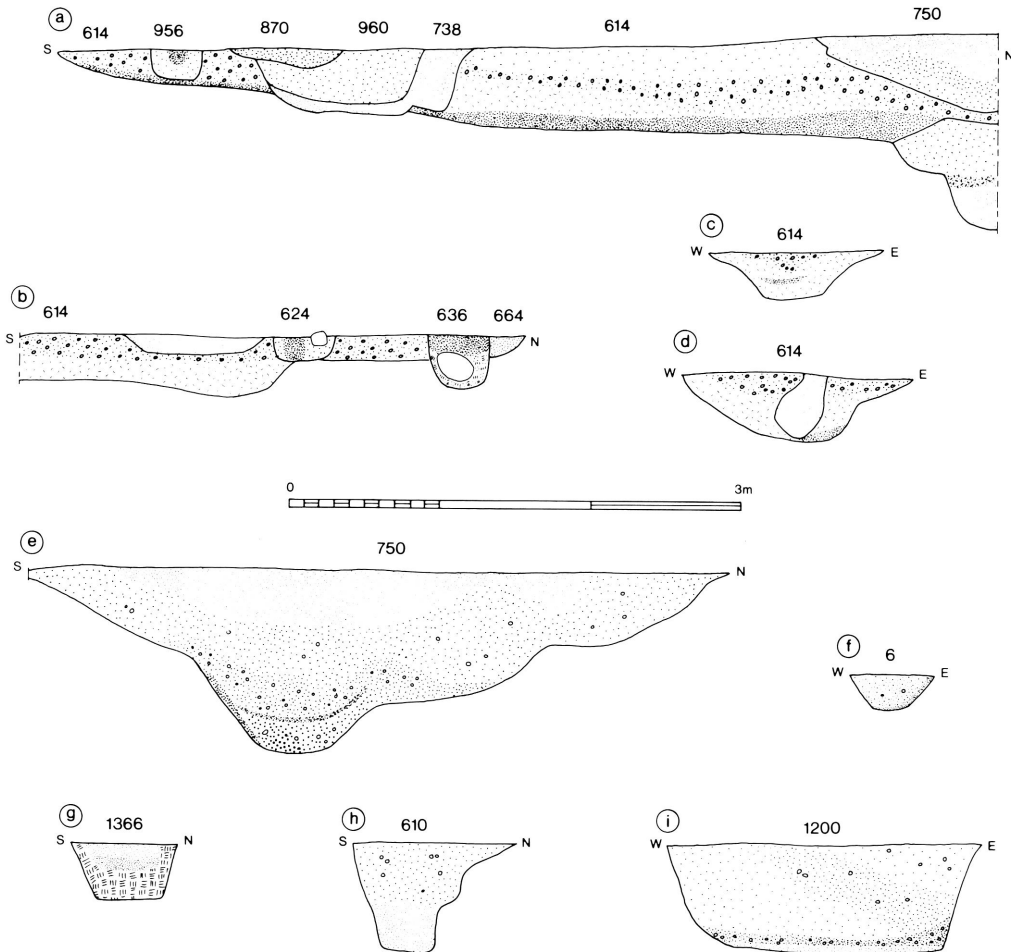


FIGURE 8

Dunston's Clump: sections a, b, c, d: Trench 614 (phase II) and its relationships with the enclosure ditch (750) and the post holes at its eastern entrance (956, 636, 624). Similar fillings drawn using same convention; cuts for features denoted by a line. e, f, g, h, i: selected features. Scale 1:50.

Structure I was made of timber, perhaps with wattle and daub, or cob panels between the main uprights. Lumps of baked clay were found in the wall trench of the rebuilt south side 780, and in 1492, a midden or destruction deposit which overlay Structure I (see below). These baked clay lumps included one with a flat surface, and one with clear wattle impressions. Cobbles in deposit 1492 may have been floor material, or part of the wall panels between the structural timbers. The coherent plan and the size of the structure strongly suggested that it was roofed, though no evidence for roofing materials was recognised.

Two periods of construction could be demonstrated from details of the southern long wall where Trench 780 was dug through the northern edge of an earlier Trench 778 and post holes. The northern long wall trench, 1218 was preceded by a wider trench, 1226 (Fig. 9o, p) on the same alignment which continued to just beyond the western-most post settings of the structure. East of Trench 1410, Trench 1226 appeared to continue as a slighter feature 1384, of similar shape and filling, to just beyond the eastern limit of the structure. The sequence between Trenches 1410 and 1226/1384 was not entirely clear; Trench 1226 appeared to abut 1410 in plan, but might have been cut by it (Fig. 9j); 1384 was too shallow at this point for a sequence to be demonstrated, but appeared to swing to the north, perhaps to avoid 1410. The positions of Trenches 1226 and 1384 suggested that they might have represented the removal of an earlier north wall while the eastern wall, marked by 1410, remained standing. Trench 1226 was dug through several pits (1168, 1540, 1418, 1138, 1630, 1232 which are shown on phase I plan, Fig. 5), and the bottoms of some possible post holes (1370, 1628, 1286, 1222, 1220 which are shown on phase II plan, Fig. 7): the latter might have been part of the original structure though they were more deeply set than those recorded on the south side. The phase III slot, 612 had a deeper area 1770 that may have held a post just to the south of 1226. It contained the earliest filling of 612 and might have been part of Structure I or Slot 612.

The eastern part of the original structure was formed by a continuous trench defining the southern, 778, and eastern sides, 1410. Trench 1410 may have remained in use in the rebuilt structure; if so, it is not clear which post

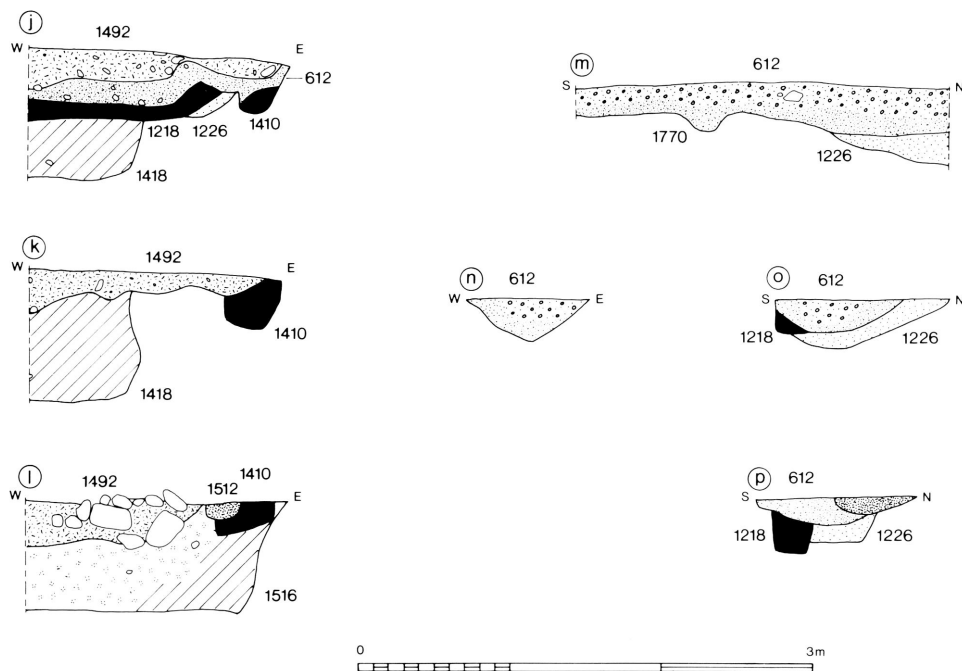


FIGURE 9
Dunston's Clump: sections showing the relationships of eastern and northern wall trenches of Structure I (phase II) to: phase I pits (j, k); phase III deposit 1492 (j, k, l); phase III palisade slot 612 (m, o, p). Convention as in Fig. 8. Scale 1:50.

holes in the eastern wall were of this earlier construction. The south side of the structure, Trench 778, was continued to the west by a line of Post Holes 986–1496. The west end of this structure was marked by Post Holes 1494–6, though other divisions may be represented. The change on the southern wall from post in trench, 982, to individual post technique, 986, may indicate a partition of the structure, but the similarity of these posts in size indicated principal timbers and suggested a continuation of the southern wall west of Trench 778. As the post holes west of 1236 were less substantial the western end of the later structure may have been sited on a partition of the original structure. If 1236 marked the west end of the structure the posts were grouped, with three posts at each end of the southern wall, and three substantial posts in the centre. These central posts might indicate the position of an entrance to the structure. An area to the east of 1410 was also enclosed by posts, some of which were paired perhaps indicating replacement, or support of longitudinal timbers (852/854, 848, 850, 898/896, 844/846). These posts might have represented a small yard, lean-to, or annex to Structure 1.

The later structure was partially rebuilt just inside the long wall of the first structure on the southern side. Within the southern wall trench 780, the posts were set at regular intervals, but some disturbed the edge of the trench, perhaps indicating repairs. The only certain evidence of repair was at the western end of the south wall where Post Pipe 1722 replaced 1238, and a charcoal rich layer, 781, at the bottom of Post Pit 1164 may have been the remnants of an earlier post pipe. The location of Post Holes 1714 and 1716 just to the south of wall Trench 780 suggested that there might have been an entrance through the south side of the structure at this point.

The north side of the structure was formed by Trench 1218, parallel and equal in length to Trench 780. No evidence of post settings was recovered in 1218 as a later slot 612, truncated 1218 removing all but its southern edge, and in some places, its bottom (Fig. 9o, p). The west end of the structure used both post in trench and individual post construction, and was probably contemporary with Trench 780. The substantial post hole 1300 at the western end of the structure might suggest a second entrance. The eastern end of the structure may not have been replaced; wall trench 1410 appeared to have continued in use from the original structure and to have remained in use into phase III. The state of Structure 1 after phase II is discussed with deposit 1492 below.

There was little evidence for internal fittings in either phase of construction. Posts close to, and parallel with the northern and eastern walls may have been internal fittings, additional supports or repairs to the structure: 1528, 1530 and 1586 were c. 1 m from the north wall; 1586 and 1134 were placed nearly equidistant from the long walls, close to trench 1410 and were almost certainly part of the rebuilt structure, judging from their position. There were three features inside, and two features outside the southern wall. The position of Post Holes 1018 and 1016 might suggest that they were part of an entrance structure, but they may have been of a different phase as no such features were recorded on the western side of any entrance, and their cobble packing differentiated them from the rest of the construction. The other three features were very shallow, 1014, 984, 934. Two of the pits inside Structure 1 might have been of this, or any other phase (Pit 1526 cut deposit 1492, and therefore belonged to phase III).

Trench 614 (Fig. 6)

Trench 614 divided the enclosure centrally from north to south and in the proportions 2:1 from west to east. It probably held a fence forming a yard for Structure 1, with an entrance in its east side which was remodelled several times. The width of the original opening was 3.5 m. At times it may have been as narrow as 1 m, or closed by inserting posts into it, perhaps supporting hurdles. Post Hole 956 on its north side, and less certainly 624 on the south, might indicate a gate. The later filling of trench 614 included a large part of a hand made pot of a type being produced in the late 1st century B.C. and 1st century A.D. (Fig. 17, no. 2), and the packing of a later entrance post 636 contained a group of 1st century A.D. wheel thrown wares and late La Tène butt beaker sherds (Fig. 17, 3-5). The position of Trench 614, dug into the enclosure ditch, would seem to have excluded any possibility of an internal bank to the enclosure at that time.

Trench 614 had a 'U' shaped shallow profile (Fig. 8c, d), and had two distinctive fillings. The earlier filling was pink to orange-brown homogeneous sand with occasional grey silty lenses at the base suggesting that 614 was an open trench for at least a short while. The homogeneity of the sands suggested that 614 was back-filled, although a lens of greyish silt was recorded within the sandy filling in just one place (Fig. 8c). The later filling of buff silty sand, with many small stones was unlikely to have been derived from natural silting. This filling was similar to that of the periglacial features on this site, but none of these were large enough to have provided sufficient material, and there is no evidence for quarrying in the excavated area. It may have been brought into the enclosure for back-filling or as packing for a fence, although few post pipes were recorded. Later features dug through the buff silty sand may have been caused by repairs to, or removal of posts (Fig. 8d). All features which cut Trench 614 are shown on the phase II plan except Pits 738/672/960/870, 1110/1130/1132 and 1066 which cut through the sides of the trench and are shown as phase III (Fig. 10). The smaller features may have represented later additions or repairs to the structure, the digging out of posts, or have been later than the structure and placed by chance on its line. Features 954 and 1000 at

the western end of 614 contained sherds of calcite gritted upright rim jars which would place them at least, in a phase II, rather than a phase III context. Pits dug through 614 just north of the entrance were presumably dug after 614 had gone out of use in phase III (Fig. 10).

Turning to the remodelling of the entrance through 614 (Fig. 8a, b), the position of the earlier sandy fillings within 614 suggested that the entrance was originally c. 3.5 m wide. It might have been at this time that a fence was erected outside the ditch north of the entrance (Post Holes 1072-674). At times the entrance might have been restricted to a width of c. 1 m or closed by inserting posts perhaps for supporting hurdles, in Post Holes 658-664; the last was cut by Post Hole 636 which was a later refurbishment of the entrance. The features cutting the later filling of 614 suggested that the entrance might have had a gate, represented on the north side by Post Hole 956 (Fig. 8a). Contemporary features on the south side of the entrance might be represented by Post Hole 624, or might have been destroyed when the gateway was refurbished and narrowed to 3m, and a large cobble-packed post hole, 636 dug (Fig. 8b).

The enclosure ditch 750 had filled to a depth of 0.75 m when the northern end of Trench 614 was dug into it. The later filling of 614 (buff silty sand with many pebbles) continued into the enclosure ditch as a distinct layer (Fig. 8a). The shallow western end of 614 (maximum 0.21 m deep) had been truncated by the uppermost filling of the enclosure ditch which must have represented later slumping or cleaning. Thus the western end of 614 did not indicate the depth of the enclosure ditch in phase II.

Pits (Fig. 6)

Of the twenty-four pits within the yard defined by 614 (excluding small and indeterminate features), sixteen were cut by phase III features and therefore might have been contemporary with Structure 1 (shown outlined by dots and dashes in Fig. 6). Their original functions are unknown, though some contained rubbish in their fillings that might have been derived from the domestic occupation in phase II.

Pit 688 had a charcoal rich lens at its base; Pit 912 contained a sherd of a cordoned neck jar (cf. Fig. 17, no. 3) and charcoal flecks; Pit 1076 contained cattle teeth as if set into a jaw, although bone was only present in very small splinters; and Pit 1118 contained burnt clay fragments, with one pottery sherd in Pit 1116. Pits 856, 1082, 922 and 1026 may also have been of this period; Pit 856 contained a cattle tooth and pottery sherds of a type that bridge the assemblages from phases II and III (p.51). Four pits were rectangular, shallow and flat bottomed, with fillings of mottled light brown sand (858, 894, 760, 732). They were shallow versions of the earlier pits (p.23), which might indicate similar activities. Pits 686, 962, 930, 1484, 1170, 1104, were deep rectangular pits that might have belonged to phase II.

Other pits outside the yard defined by Trench 614 included nine pits cut by phase III features, and five pits outside the phase III palisade slot 612 which might have belonged to phase I or II. With the exception of those pits just outside the entrance to 614 (Figs. 3, 10), all unphased pits are shown on the phase II plan. Only five of these pits contained pottery sherds (1568, 240, 16, 1356, 1002), with baked clay pieces from Pits 240 and the very top of 212, a copper alloy brooch (Fig. 20, no. 59) from Pit 240, and charred wood, seeds and bone from Pit 401 (p.61-2).

Comment

The function of the structure and yard can only be considered within the context of the complete enclosure complex. The excavation of Enclosure 1, and selective examination of the other enclosures would be necessary for detailed analysis of the site's development. Structure 1 may have been a domestic or specialist agricultural building. Its separation from the rest of Enclosure 2 by the yard area defined by Trench 614 might suggest a farm house. The pits within the yard appear to cluster at the edges of the yard, rather than close to the building which might suggest that they were contemporary with it. As on any farm, the division between domestic activities and farmwork would have been arbitrary, and Structure 1 may have served these and a number of other functions.

PHASE III (FIGS. 10, 11)

Stratigraphy

Phase III was defined by the enclosing slot 612 (interpreted as a palisade) which cut, and was therefore later than, the north wall of Structure 1 (Fig. 9o, p) and Trench 614. A midden

Three of the post holes of Structure 3 were dug through Trench 614 and were therefore later than phase II, though two of the post pits 329 and 397, were cut by a linear feature 291, which was itself cut by phase IIIb trench 4 (Fig. 12). This trench also cut one of the post pits of Structure 2, 391 (Fig. 12). The position of the southern entrance of Structure 5 at a former opening in Slot 612 (Fig. 11), suggested that they were contemporary. With the exception of Structure 4 which may have been erected before the phase IIIb divisions, there were indications that the other structures were erected after the IIIb trenches were dug (Fig. 11): Post Hole 1606 of Structure 10 cut Trench 1564 (IIIa); Post Holes 1184 and 1250 of Structure 10 cut 1438 (IIIb); Post Hole 238 of a possible fence off Structure 6 cut Trench 38 (IIIa); Post Hole 1684 of Structure 6 cut Trench 293 (IIIb); Post Hole 149 was possibly part of Structure 5, it cut Trench 4 (IIIb); Post Hole 467 of Structure 5 cut Post Hole 155 in Slot 612 (III); Post Holes 51 and 55 of Structure 5 cut Trench 14 (IIIa), which was itself cut by Trench 4 (IIIb).

The palisade slot 612 (Fig. 10)

612 was a shallow slot parallel and 2.5 to 3.5 m inside the enclosure ditch. A small gap in the south side, and larger gaps in the north and east sides may have been entrances or may have been closed by means that have left no traces in the subsoil. It cannot be demonstrated that Slot 612 held posts for its entire circuit, but the bases of post settings were found wherever excavation took place. The shape of the trench and its contents suggested deliberate back-filling, and the lack of post pipes in plan suggested that any posts had been removed. Its position within the enclosure strongly suggested that it held a boundary fence or palisade. It is unlikely to have formed a revetment for a substantial bank since there was only a narrow gap to the lip of the ditch, and the position of phase III features close to the slot precluded any bank inside Slot 612. The pottery sherds from Slot 612 are romanized versions of the phase II types and are dated from the late 1st to early 3rd centuries A.D. (Fig. 17, nos. 8–12).

The latest filling of Slot 612 was a characteristic homogeneous yellow-brown sand with many rounded pebbles which was probably deliberate back-filling (Fig. 9m, n, o). On its south eastern side, excavation showed that post settings extended below the bottom of the slot, 176, 172, 170, 287, 289, 73, though the last three might have belonged to Structure 9. Few post pipes were visible in plan in the rest of the southern and western sides, which were not excavated except where relationships with other features seemed likely to be recoverable, e.g. where 612 cut through Trench 614 and where Post Hole 918 was found. At the north western corner a deeper-cut probable post setting 1770 was recovered that could have been part of Slot 612, or Structure 1 (Fig. 9m).

The gap through the southern slot was 2.45 m wide. The slot west of this gap, cut through Pit 135, had clear post settings, 170, 172, 176 and turned into the enclosure terminating within 1 m at Post Hole 155. The slot east of this gap cut through a deep rectangular pit 141. North-south Trench 14 had been dug bisecting the gap leaving spaces 0.8 m and 0.9 m wide on the west and east. Into all of these features a post hole had been dug which formed part of Structure 5.

The width of the gap in the eastern slot is unknown; its north side was not excavated, but it seemed to be aligned with the gap through the enclosure ditch known from aerial photographs. The southern part of the eastern slot turned into the enclosure on two separate lines of which only the outer line can be demonstrated to continue from Slot 612, as the inner line which forms an approximate right-angle with 612 was cut by Pit 216. The outer line of 612 contained the post holes for Structure 9.

The northern part of Slot 612 was wider than the southern and eastern parts. It was filled with mid brown sand similar to, and stratigraphically equivalent to the earliest filling of Slot 612 in its western part (Fig. 9m, n, o). This slot truncated the rebuilt north wall of Structure 1, and surely represented the removal of that wall. No post pipes were recognised that were demonstrably contemporary with this slot, and as the distinctive stony later filling was not recognised on the northern side where Structure 1 had formerly existed, any palisade structure may not have extended this far east. A slot with dark brown filling did run to the north west corner of the former structure, and a continuation of a palisade may have been represented by features dug into the earlier slot. No other boundary structures were recognised in the 18 m gap in the northern slot.

The south west corner of the slot was not excavated, but the increased width, and evidence of disturbance in plan suggested either substantial repairs or the removal of posts. The two large rectangular pits, 1772 and 180 dug through the southern and eastern parts of the slot may have represented similar features. Pit 180 was excavated; it was twice as deep as the slot; no post pipes were identified and the homogeneous mid-brown sand suggested deliberate filling. The position and filling of Pit 180 suggested that it might have resulted from the removal of posts in Slot 612. Pit 180 cut Post Hole 252 which was interpreted as part of Structure 9. Structure 9 had presumably gone out of use when the palisade was removed.

It has already been suggested that there was no evidence for a bank within the enclosure in phase II, and the fact that the later filling of Trench 614 could still be seen within the enclosure ditch filling demonstrated that there were no deep cleanings of this part of the ditch to refurbish any bank after phase II (Fig. 8a). There is no archaeological evidence to suggest that Slot 612 represented a revetment for a bank. It is possible, however, that because the

sequence between Trench 614 and the enclosure ditch could only be seen where there was a gap in the northern side of the slot, this area of the ditch was left silted while the rest of the enclosure ditch was recut, the upcast forming a bank which was retained by the structure represented by Slot 612.

Deposit 1492 and Structure 1 (Figs. 10 and 8j, l).

Deposit 1492 was a dark brown silty sand containing large cobbles, varying in thickness from 0.05 m at its edges, to 0.3 m where it had sunk into the tops of the phase I pits 1418 and 1516. There was clear stratigraphic evidence to demonstrate that 1492 was not an occupation deposit of Structure 1 (phase II) but must have been of later date. Deposit 1492 appeared to have been confined to part of the area previously occupied by Structure 1. There was no archaeological evidence which would demonstrate that Structure 1 was re-erected at this stage; no post hole groups with coherent plans later than the rebuilt structure could be demonstrated, though some of the previous structural elements could have been retained or the structure rebuilt without subsoil foundations as has been found in other Romano-British structures.⁵ The southern wall of Structure 1 was removed and a destruction deposit overlay the wall trenches; these deposits cannot be related stratigraphically to 1492, but they contain similar pottery types (Table 2, nos. 33–41). Deposit 1492 contained part of a quern stone (Fig. 22, no. 70), an iron punch (Fig. 20, no. 49), and the only large pottery group from the site dating from the late 2nd to 4th centuries A.D. (Fig. 19, nos. 33–40); it may be interpreted as a midden or destruction deposit accumulated after Structure 1 had gone out of use.

Both 1410 (the east wall trench of Structure 1) and 612 (the slot which truncated the north wall trench of Structure 1) were in part covered by 1492, but it was not recorded east or north of them. It is not known whether 1492 was formerly more widespread, and its original extent destroyed by recent ploughing, or whether it was confined either by the remaining elements of Structure 1, e.g. part of the wall erected in trench 1410 (Fig. 9k,l), or by other structures which may be represented by the features dug into the later filling of Slot 612 (e.g. 1512, Fig. 9k).

Phase IIIa divisions (Fig. 10)

The phase IIIa divisions comprised Trenches 6, 38, 297, 1704, 1564, 1600, 610, and perhaps 14 and 640. Trench 14 bisected the southern gap in Slot 612, and therefore was probably contemporary with 612. It was cut by the post holes of Structure 5, and the phase IIIb Trench 4, so it may have belonged to the phase IIIa divisions though it was not dug on the same alignment. Trench 640 was parallel to Slot 612 and of similar size to the phase IIIa trenches, so may have belonged to this phase of enclosure division. It was cut by the later filling of Trench 610 which may have represented the removal of posts.

Although few post pipes could be seen in plan, the steep sides of Trenches 6 (Fig. 8f), 38 and 297 suggested that they had been dug as settings for posts, and despite the minimum of excavation, post holes were found in Trench 38. The post settings in Trench 1600 were clear as the posts had sunk slightly into the soft sand below the bottom of the trench. A post hole line to the east and approximately parallel to Trenches 1564/1704 and 6, 38 and 297 may have been part of these arrangements (i.e. Post Holes 1650–1684, 269–248, Fig. 11) though they can be interpreted more economically as parts of two structures, 4 and 6 and are discussed below. These phase IIIa trenches probably held fencing and formed small stockades.

The western terminal of Trench 610 was dug into, but not beyond Slot 612; it might have been an adjoining structure. Trench 610 was 0.35–0.70 m deep, and up to 1 m wide with a steep side on the south and a stepped side on the north (Fig. 8h). The primary filling of homogeneous red sand may have been deliberate back-filling; the later filling in the wider trench was a pebbly mid brown sand. The shape suggested that this trench might have held posts, though none were found, so the stepped north side, and later filling might reflect the removal of any posts. A trench of this large size could have held a very substantial structure.

The alignment of Trench 610 inside and nearly parallel to the former Trench 614 suggested a continuing separate function for this area in phase IIIa, although Structure 1 was derelict. The pottery from the later filling of Trench 610 was of the same types as that from Slot 612 and dated from the late 1st to 3rd centuries A.D. (Fig. 17, nos. 15–20).

Structures 7, 8 and 9 (Fig. 10)

Structure 9 could represent a small compound for stock, or perhaps a lean-to against a palisade. Structures 7 and 8 were aligned similarly to Structure 9 suggesting the line of an eastern slot; the excavated post holes were slight. The gap between Structures 8 and 9 was aligned with the causeway through the main enclosure ditch known by aerial photography; this perhaps indicated that this entrance was still in use at this time.

Some of the post holes of Structure 9 were set into Slot 612. The northern Post Holes 210–1736 (0.06–0.15 m deep), were distinguished from the slot by their packing cobbles, dark brown sand and charcoal fillings; the southern Post Holes 287–73 (0.15–0.25 m deep), had only slightly darker fillings than the slot. The precise position of all these post holes within the slot strongly suggested a repair or replacement. The post holes of Structure 9, roughly parallel to the palisade, were similarly shallow to those set in the slot (0.1–0.2 m deep); no post pipes were recorded except for one post set into a large pit 399 (0.49 m deep). Structure 9 was erected before part of the timber work of 612 was removed as Pit 180 cut Post Hole 252. The position of Structure 9 suggested that the palisade represented by Slot 612 might have been an integral part of the structure.

Phase IIIb divisions (Fig. 10)

The phase IIIa divisions were replaced or supplemented by four parallel east-west trenches, 4, 293, 632, 604. These trenches *c.* 0.5 to 1.4 m wide survived as shallow features only (maximum 0.1 m deep); no evidence of post settings was found. They were filled with compact mid to dark brown silty sand which although darker, siltier and less stony than the fillings from the other trenches dug to hold posts, was probably the result of deliberate filling. The increased evidence for burrowing animals in these trenches suggested a once rich humic soil filling; perhaps they might be interpreted as cultivation features such as bedding trenches for hedges, rather than fences. The alignment of the ends of these features, the abutting of Trench 1438 to Slot 612, and their disturbance by later features precluded their interpretation as medieval plough furrows. Four slight post holes (305, 423, 419, 421) parallel to, and between Trenches 632 and 293 may be a further partition during this phase.

The northern trench (604) was longer than the others separating the area formerly occupied by Structure 1. If Trench 604 was intended as a boundary, it may account for the large gap (*c.* 18 m) in the northern side of the palisade slot. Access over the partially filled enclosure ditch would have been easy at this time.

The pits (Fig. 10)

Eight pits were dug through phase II Trench 614 (Fig. 8a); of these, three 738, 1066, 1110 contained lenses of charred material which could have been derived from occupation in phase III. Pit 1066 contained charred worked wood (Fig. 21, nos. 60–6) and iron fittings (Fig. 20, nos. 50–8), both perhaps parts of a wooden box (p.52), and charred plant remains (Table 3). Pit 1110 contained charred plant remains (Table 3).

Pits just outside of the entrance to the phase II yard formed by Trench 614 (1330, 1210, 1212) might have been dug after the yard went out of use and would therefore have belonged to phase III. At least four pits 180, 1772, 370, were dug into the palisade slot 612; they may have indicated the end of the structure. Pit 216 cut the inner edge of the palisade trench; it contained a lens of charred material which included a few plant remains (Table 3). Pit 1526 abutted deposit 1492 in the area of Structure 1; it was not masked in plan by deposit 1492 so it may have represented one of the later stages of phase III.

The pit which was cut into the outer edge of the north west enclosure ditch (Fig. 3), contained sherds of grey ware pottery. It was cut into the latest filling of the enclosure ditch.

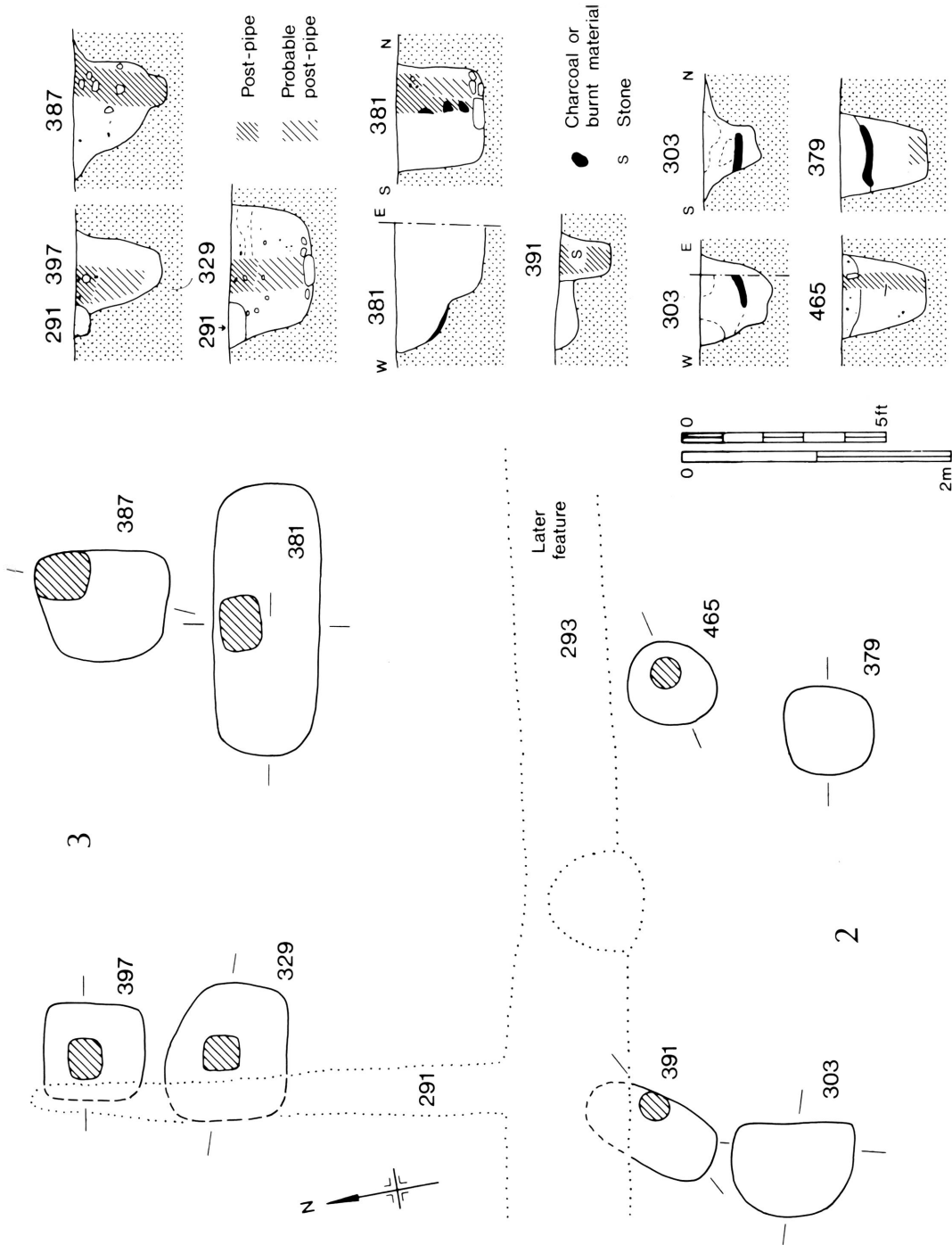


FIGURE 12
 Dunston's Clump: Structures 2 and 3, phase III. Dashed outlines: stratigraphically earlier; cross hatched: post pipes; dotted outline: later feature.
 Scale 1:50.

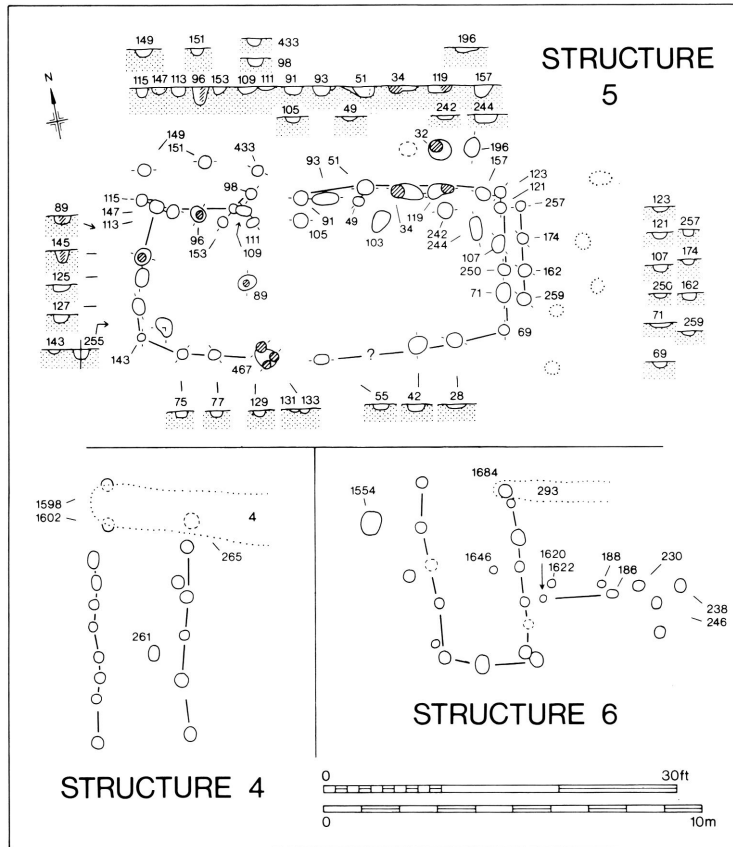


FIGURE 13

Dunston's Clump: Structures 4, 5 and 6, phase III. Conventions as in Fig. 12. Scale 1:200.

Structure 5 (Figs. 11 and 13)

Structure 5 was rectangular in plan and was marked by individual post holes. The post holes survived as shallow features (maximum 0.4 m deep, average 0.2 m deep), with little evidence for post pipes. Both long walls and the west end of the structure were formed of single posts. Although more post holes were recorded on the northern long wall, the posts could have been paired with those of the southern long wall, e.g. 115/143; 113/75; 96/77; 98, 109, 111/467; 91, 105/55; 119/28; 123/69; this would have left additional posts on the northern wall only at the eastern and western corners, and at the doorway. At the east end of the building there was a double row of posts c. 0.6 m apart which might have been part of the original construction as they appeared to be paired 121/257; 107/174; 250/162; 71/259; alternatively they might have been repairs. Opposed doorways were set approximately one third of the way along the long walls. Post holes within the structure might have represented internal fittings. The area to the west of the doorways might have been screened to form a separate room using Post 89. Five post holes 149, 151, 433, 32, 192 and one possible post hole only represented as a stain (dashed in Fig. 13) were recovered parallel to, and 1 m from the northern long wall of the structure; they might be interpreted as an external fence, buttresses, a lean-to structure or verandah.

Structure 5 was of individual post construction, and as pieces of baked clay with stick impressions were found in some of the post holes, probably had wattle and daub panels. As in Structure 1, cobbles could have been used as a flooring or walling material. The size and coherent plan of the structure suggested that it was a roofed building, although no roofing materials were found.

The northern doorway was marked by three post holes on the west 98, 109, 111, and perhaps by 433 too, and two on the east 91, 105, and the southern doorway by Post Hole 467 with evidence for three post pipes on the west, and Post Hole 55 on the east. Both post holes of the southern doorway cut phase III features 14 and 55 of an earlier entrance through the boundary slot 612. This re-use of the palisade entrance may indicate that it was still standing when Structure 5 was erected. Five post holes interpreted as part of Structure 9 (dotted in Fig. 13) were within two metres of the eastern wall of Structure 5; this proximity perhaps made it unlikely, but possible, that these structures were contemporary. Two post holes at the north west corner 242, 244, and one along the north wall 103, might have been contemporary with the structure though their dark brown sand and burnt cobble fillings were dissimilar to those of the building construction.

Structures 4 and 6 (Figs. 10, 11 and 13)

The post holes between phase IIIa trenches 6/38/297 and 1564/1704 that were not clearly part of Trench 1600 can be interpreted either as phase III divisions, or two structures. The latter interpretation is preferred since the post holes could not all have been dug at the same time: some were cut and were therefore earlier than, and some were cut by and were therefore later than, the phase IIIb trenches, 293 and 4.

Structures 4 and 6 are interpreted as two small rectangular structures (5 × 2.4 m, 4.5 × 2.3 m) marked by features thought to be post holes (maximum depth 0.3 m, minimum depth 0.05 m); no post pipes were recognised. These structures were formed by two parallel lines of six to eight posts, each with one internal post 261 and 1646, halfway along the length of the structure, but closer to the eastern side. The position of the post holes in the long walls of Structure 6 suggested that they might have been paired across the structure. Outside Structure 6 was a clay lined pit 1554 and a line of post holes 1620 to 238, some of which appeared to be double, which might have held a contemporary fence. Structures 4 and 6 might have been open or roofed pens, or storage facilities, but they were probably too small for dwellings.

The post holes between the phase IIIa trenches 6/38/297 and 1564/704 might have been two long north-south lines of post holes 1650–1684 and 269–248, one shorter north-south line of post holes 1678–1580, and two east-west lines, 1678–1696 and 1620–238, connecting the north-south lines. They might then have formed part of the phase IIIa divisions (1602 and 265 were cut by phase IIIb Trench 4) or phase IIIb divisions (238 cut phase IIIa Trench 38 and 1684 cut phase IIIb Trench 293), but if Trenches 293 and 4 were contemporary, then the post holes could not have formed contemporary continuous lines. An alternative interpretation that these post holes formed similar sized rectangular structures, 4 and 6, would not only account for most of the post holes in this area, but also explain the larger gaps between Post Holes 1598 and 1696, and 265 and 248 in the north-south post lines, removing the stratigraphic difficulty of demonstrating that all of these post holes were contemporary. Post Hole 1684 of Structure 6 cut the phase IIIb Trench 293, making Structure 6 one of the latest features on the site. The position of Structure 4 in the site's chronology is less secure. It cut Pit 1640; as there were no demonstrable phase III examples of this type of deep, rectangular pit, this suggested that Structure 4 was part of phase III. Two post holes, 1602 and 265 were both cut by phase IIIb trench 4. It was not clear whether these post holes were part of Trench 1600, since they occurred on its line, or whether they formed part of Structure 4. The plan of Structure 4 would be closer to that of Structure 6 if the two post holes were not associated with it.

The long walls of Structure 4 were parallel to and the same length as the end wall of Structure 5 (and Trench 6), and could be a contemporary structure, but the large gap with no post holes between Structures 4 and 5 precluded their interpretation as one structure. Structure 4 was likely to be of phase III.

Structures 10 and 11 (Figs. 10 and 11)

The group of post holes and other features between the western slot 612 and the north-south division 1564/1704 might have been part of two structures. Features of Structure 10 included post holes with replaced posts, cobble packed post holes, and larger features with cobbles in their fillings. They ranged from 0.04–0.37 m deep and formed an approximate rectangle in shape, with the southern post hole line at right angles to the long

axis of Structure 6. A clay lined pit was found on this post hole line, 1366. Structure 10 could represent a pen; the irregularity of the size and position of the features perhaps makes a roofed structure unlikely.⁶

A group of features just to the south of Structure 10 might have formed part of that structure, or another. If these features were a separate group, their stratigraphical position cannot be determined; they were not aligned with the other phase III structures. Most of the posts had been replaced once (depths 0.12–0.35 m), and all except one of these features contained considerable quantities of fired clay, several pieces of which had stick impressions perhaps the marks of wattle. Features of group 11 might have been a small structure, of which part was of wattle and daub construction. Three clay lined pits (1444, 1446, 1456) might have been part of that structure.

Clay-lined features (Figs. 11 and 8g)

Eleven clay lined features were found. They were of three shapes: straight sided, cylindrical pits with flat bottoms and silty fillings 139, 754, 1366, 1554 (0.6–1 m across, 0.3–0.35 m deep); basin shaped pits with silty fillings 618, 1444, 1446 (0.5–0.75 m across, 0.17–0.3 m deep); and clay filled features 694, 1306, 1408, 1456 (perhaps only the bases of basin shaped pits, c. 0.5 m across, 0.15 m deep). Four were positioned beside probable or possible phase III structures, e.g. 1554 by Structure 6, 1366 by Structure 10 and 1444 and 1446 by Structure 11, and one 618, was dug through the phase IIIb Trench 604. The other clay lined features could not be assigned to any phase or feature group though 1408 and 1306 were within and close to the west entrance of Structure 1. They might have been clay packed post holes, but the better preserved had been carefully lined and contained an unusual grey to black silty filling. They may have been used for storing liquids, or if adequately covered, for dry storage. They are unlikely to have been for storing clay as the enclosure ditch was dug through a clay subsoil band on the western edge of the enclosure.

Comment

Phase III represented a series of stages, all of which appeared to have been contemporary with the palisade slot 612. The functions of the different areas within the enclosure appeared to have changed from phase II to phase III. Structure 1 (phase II) was derelict and was probably used as a midden in phase III; it continued to be separated from the rest of the enclosure after the end of Trench 614 in phase II by Trench 610, which probably held posts, and later by Trench 604, which may have held a hedge. The pottery from the midden deposit 1492 is of long lived types current from the late 2nd to 4th centuries A.D. with some slightly earlier pottery from the palisade slot 612 and internal divisions. The southern part of the enclosure was divided on two occasions into smaller compounds. There was no evidence for the initial function of these compounds though they might have been used for stock, whereas the structures were apparently set in the spaces created by the later divisions. This shift in the focus of settlement leaves an apparent discontinuity of dwelling within the enclosure, since Structure 1 was dismantled when Slot 612 was established and it was only when Trench 14 of phase IIIa was removed that Structure 5 could be erected. As in the previous phases, any detailed interpretation of the function of these structures and divisions would require a knowledge of the sequence and structures in other parts of the enclosure cluster.

Any interpretation of the length and end of phase III must be tentative as the remains of most of the features are heavily truncated, and many features (particularly Slot 612 and the divisions) were not completely excavated (Fig. 4). Despite the demonstrable sequence of stages within phase III, there was little clear evidence for the rebuilding or refurbishment of any of the structures or divisions, with the exception of the enclosing slot 612, and these changes may have related to the different stages within the boundary slot. This might suggest that the stages within phase III were of relatively short duration. The lack of post pipes in the post pits forming the structures, and their absence in plan in the partitions and in Slot 612

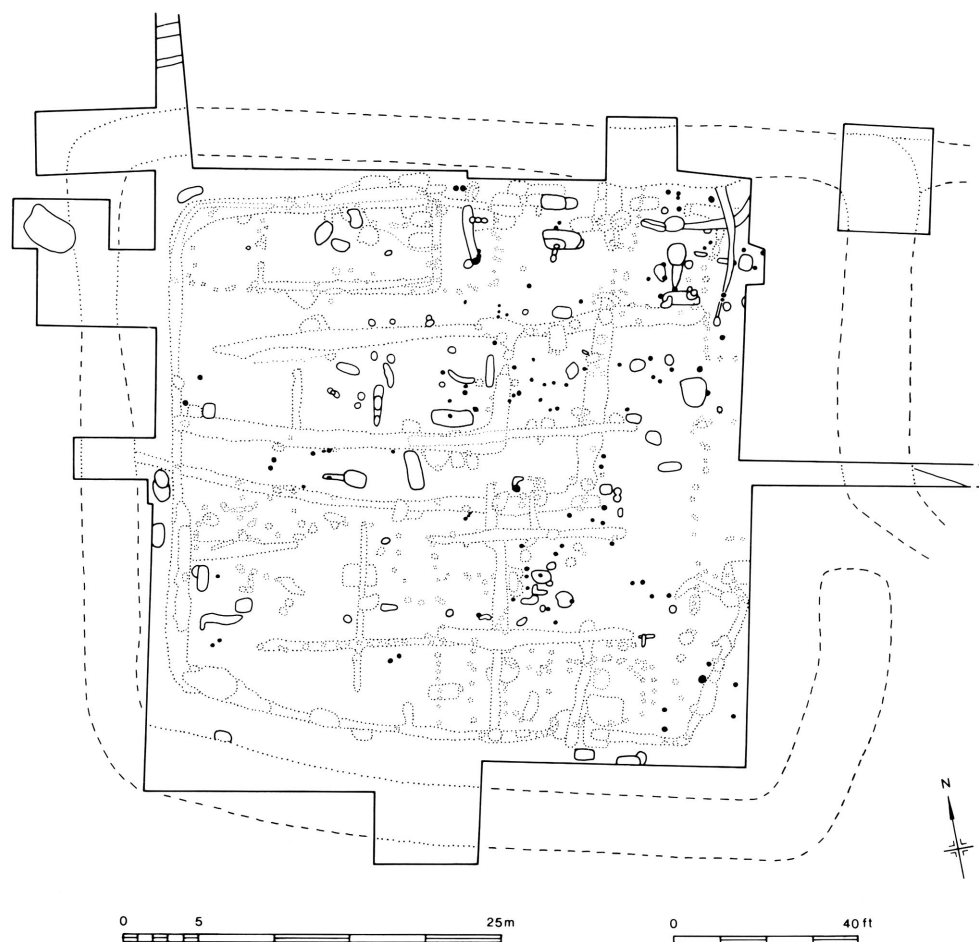


FIGURE 14

Dunston's Clump: unphased features, Enclosure 2. Solid shading or outline: unphased; other features shown dotted. Scale 1:500.

(though possible post hole bases were identified) might suggest that these posts were deliberately removed. This suggested that the enclosure was cleared after phase III and was not dwelt in again since no pottery or other datable rubbish was dumped there which need be later than the 3rd century A.D. No major features or structural elements were recognised which were later than this period inside the enclosure though occupation might have continued elsewhere in the enclosure cluster.

EXCAVATIONS OF ENCLOSURES 1 AND 3

This area was chosen for excavation to determine the relationship between Enclosure 1 and the brickwork plan field system. On examination of the aerial photographs the enclosure appeared to be earlier than the field systems (Fig. 2). Excavation confirmed this. The ditch of Enclosure 1 was dug first, then three successive field ditches were dug into its filling. These

stages of ditch digging were called periods A–D. The pottery groups were not large enough for anything but broad comparison with the phases of Enclosure 2.

Period A (Fig. 15)

The earliest features in this area were part of a small square enclosure (3) and the boundary ditch of Enclosure 1; the upper fillings of both were cut by the period C ditch 554. There was no stratigraphic evidence to suggest that the ditches of Enclosures 1 and 3 were contemporary.

The function of Enclosure 3 is unknown, but its boundary was re-dug at least three times on the same alignment. The steep sides of the earliest slot suggested a post trench, though no post pipes were recovered; the subsequent Slot 552 with its cobble filled central area might indicate the removal of any such posts. A later trench 520, dug into the top of 552 was filled with buff silty sand with many small pebbles. This filling was similar to that of the periglacial features, and may have been used as packing for fence posts as suggested for Trench 614 in Enclosure 2, though no posts were identified. A wide shallow trench 550 was dug through the outer edge of both earlier trenches. The filling of mid to red-brown sand and pebbles was similar to that of the other ditches in this area while its profile also suggested an open ditch. This boundary had been filled when the latest shallow trench 518, was filled with dark brown sand, cobbles and charcoal reminiscent of occupation debris.

Handmade pottery sherds were found in this latest trench 518. They were of BSB 2 fabric which was found only as upright rim jars of the 1st century A.D. in Enclosure 2. Pit 500 within Enclosure 3 also contained three bodysherds of handmade pottery. An early date for occupation of Enclosure 3 was also suggested by the recovery of the single sherd of decorated Iron Age pottery (Fig. 19, no. 48) from the lower ploughsoil overlying the southern part of the trenches of Enclosure 3.

Enclosure 1 was bounded by a large deep ditch 544 *c.* 6 m wide and 1.8 m deep; it had three main layers filling more than half of its depth when it was recut as a slighter ditch (*c.* 2 m wide and 1.5 m deep). A later recut 546 was even slighter (1.3 m wide and 0.35 m deep) and ran along the outer edge of the earliest ditch. The fillings of both these recut ditches were sands and pebbles with no visible silting lines or layers apart from a stonier central area in the first recut. Pottery sherds from the recut ditches were of types similar to those from deposit 1492 (phase III) in Enclosure 2 which was tentatively dated to the late 2nd to 4th centuries A.D.

Other features outside Enclosures 1 and 3 were present. Apart from Pits 560 and 542 which were cut by the later ditches of Enclosures 1 and 3, they were stratigraphically earlier than the period B ditch with the exception of Pit 526, which was cut by the period D trench.

Period B (Fig. 15)

A ditch 512 was dug through the almost fully silted ditch of Enclosure 1. Its stepped profile indicated that it was recut at least once. It was filled with a homogeneous brown sand and pebbles with no visible stone or silting lines. The position of Ditch 512, curving south to join the ditch of Enclosure 1, and its substantially greater depth than Ditch 510, suggested that this was the brickwork plan field ditch identified on the crop mark photographs (Fig. 2).

Period C (Fig. 15)

The filled brickwork plan field ditch 512 was cut by a later north-south ditch 554 which also cut the later trench 550 of Enclosure 3. At least three layers were evident in the filling of Ditch 554, with stone and sandy lenses indicating sporadic silting. Although this ditch was of a substantial depth (up to 0.75 m deep), its line was not identified on the crop mark photographs even when it was known to be present as a subsoil feature.

Period D (Fig. 15)

A slight trench 510 ran approximately parallel to the earlier ditch 512; it then turned and ran along the edge of the filled ditch 554. The filling of Trench 510 was similar to Ditch 512. It deepened towards the east, and probably formed the short stretch of crop mark from the north east corner of the excavation (Fig. 2). It could have run parallel to Ditch 512 for a considerable distance beyond that shown on the crop mark photographs; the line of the Trench 510 was not visible on aerial photographs in the area excavated.

Several features were cut into the ditch fillings of Enclosure 1 and Ditch 512; the size, steep sides and alignment of those cut into the filled ditch of Enclosure 1 suggested post holes perhaps forming a fence. They might have belonged to either period C or D ditches, or have been later. Pottery sherds from Post Hole 540 cut into the top of the Enclosure 1 ditch contained grey ware sherds indistinguishable chronologically from those sherds in the filling of that ditch.

Comment

Excavation has shown that ditches forming parallel crop marks that seemed to be aligned, were not contemporary at Dunston's Clump. The pottery from the ditches of Enclosures 1 and 3 suggested that they were not contemporary, though no pottery was recorded from the primary filling of the ditch of Enclosure 1. The brickwork plan field ditches 510 and 512 were shown to be successive, even though the crop marks formed parallel lines with north-south divisions that appeared to form small compounds (Fig. 2). The ditches probably filled quickly, and as there was little evidence for repeated redigging, their alignments were

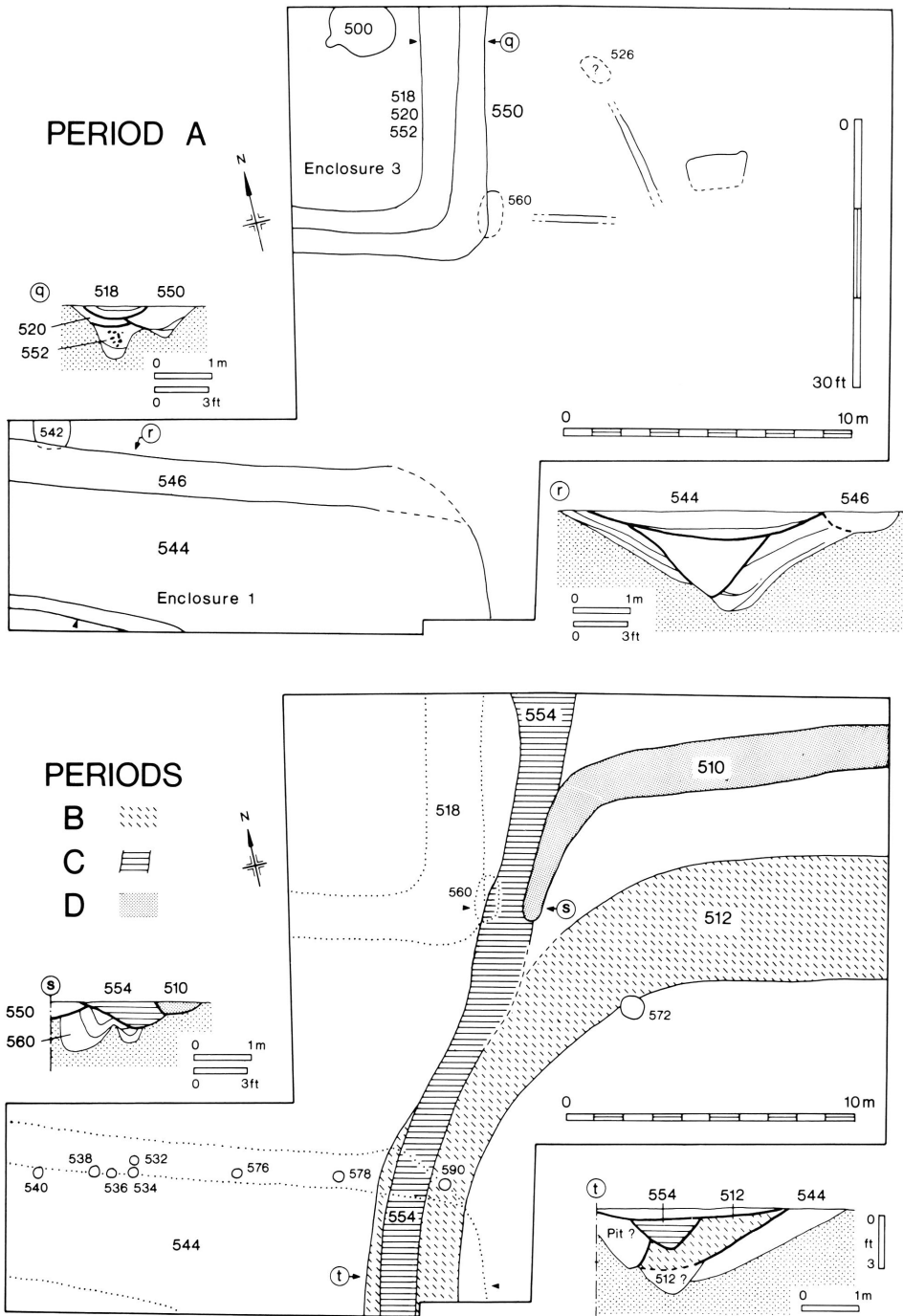


FIGURE 15
Dunston's Clump: Enclosures 1 and 3 in period A and periods B-D. Plan scale 1:250.

probably preserved by hedges and fences. The latest ditches 554 and 510 were narrower, and shallower than the earlier ditches. Ditch 554, and any northern continuation was not recognised on aerial photographs, and only a short length of 510 was observed as a crop mark. These later features were perhaps dug to provide marker boundaries whilst hedges or fences were established which might not appear as crop marks. This implies that development of the original field patterns may not be recognisable from crop marks.

THE ARTEFACTS

THE POTTERY

by RUTH S. LEARY

The site yielded 942 sherds from a minimum of 101 vessels spanning some 150–200 years of occupation. The pottery was catalogued by context and examined in groups based on the stratigraphic phasing of the site in order to test this phasing and suggest date ranges. The fully quantified archive comprises a catalogue in tabular form recording fabric, sherd count, form, part, rim diameter, rim percentage, decoration and any other conditions such as abrasion, sooting, burning etc., the pottery form descriptions, and the mortaria indentifications by K. Hartley. The pottery was quantified by sherd count and minimum vessel count.⁷

The range of pottery from the site, the dating evidence for each stratigraphic phase, and the typological affinities of the fabrics and forms present are discussed below and illustrated in Figs. 17–19. The detailed analogues and dating of each type is given in Table 2, and are therefore not repeated in the discussion.

Fabrics

The fabrics were defined using a $\times 30$ binocular microscope and are described using standard terminology.⁸ The forms found in each fabric are given in Table 1.

CTB1: brown fabric often with a darker core. Many large irregularly shaped vesicles resulting in a corky texture, and a few fine brown iron oxides.

CTB2: similar to CTB1, but with fewer vesicles and moderate quantity of ill-sorted quartz inclusions. Sandy and harder than CTB1.

BSB1: brown as above. Hard with finely irregular fracture and feels leathery. Moderate quantity of ill-sorted, rounded quartz of medium size; sparse medium sized, brown, iron oxides and rare vesicles.

BSB2: brown-orange with reddish brown core. Smooth and leathery. Fairly soft with irregular fracture. Moderate amount of well sorted, rounded quartz of medium size and sparse, medium sized, brown iron oxides. Used for handmade vessels.

BSA1: brown with a reddish core. Smooth and soft with finely irregular fracture. Fairly clean matrix with moderate amount of well sorted, subangular quartz; sparse, fine brown iron oxides and some fine mica.

GTA1: dark brown with reddish brown margins, or occasionally grey. Hard and leathery with finely irregular fracture. Sparse irregularly shaped grey inclusions of medium size, probably grog; moderate amount of ill sorted, rounded quartz and sparse fine black iron oxides.

GR/O: grey wares. Further subdivided in the catalogue:

GRA1: fine sandy

GRB1: medium sandy

GRC1: coarse sandy

GRD1: very coarse sandy.

OAA1: fine oxidised orange sandy wares etc.

OBA1 etc.: fine oxidised buff-cream sandy wares etc.

BB1: black or grey with many well sorted, medium sized quartz and some medium sized, brown iron oxides. Slightly micaceous. Rough and hard with hackly fracture. Black Burnished ware Category 1 type.

DBY: Derbyshire ware.⁹

DW: Dales ware.¹⁰

Discussion

Only a small assemblage was recovered from phase I contexts of Enclosure 2 (Fig. 16, Table 2), with only one identifiable form, an everted rim jar. In calcite gritted wares as CTB1 and 2, or fabrics such as BSB1, this form was generally associated with types dated to the late 1st century B.C. or 1st century A.D. (see Table 2), and in

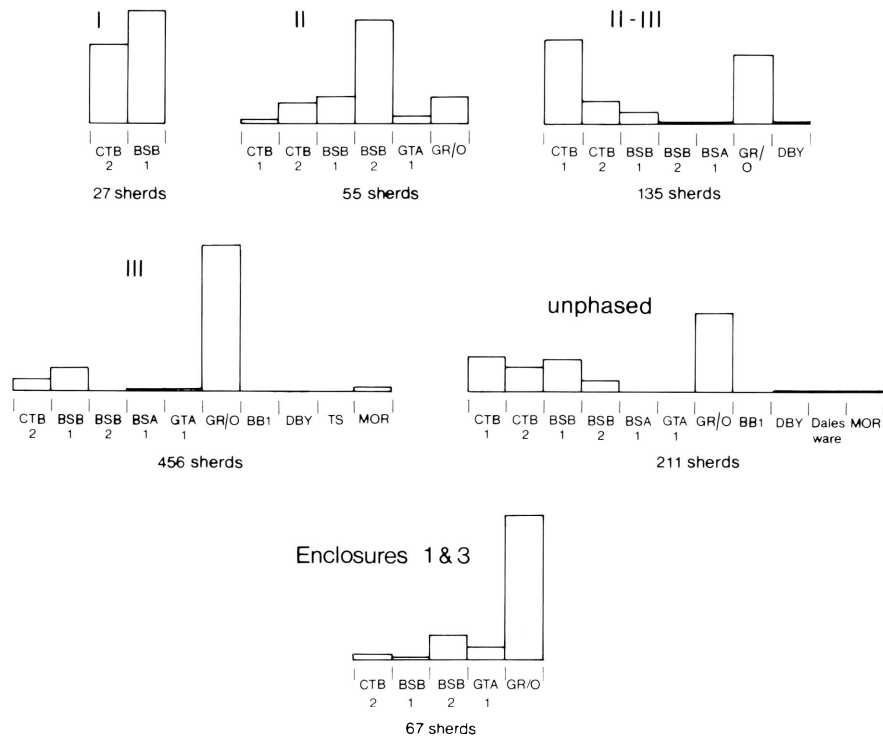


FIGURE 16

Dunston's Clump: the relative percentages of pottery fabric groups from Enclosure 2 phases I to III and unphased, and from Enclosures 1 and 3.

Northamptonshire was superseded by channel rim jars. In the 2nd century simple everted rim jars in grey ware were common in Nottinghamshire. The remaining sherds were in fabrics BSB1 and CTB2 and a study of the forms made in these fabrics (Table 1) suggested these can be similarly dated from the late 1st century B.C. to early in the 1st century A.D.

Enclosure 3 yielded nine BSB2 bodysherds of handmade pottery and unstratified sherd of pre Roman Iron Age type (No. 48) paralleled in pre 10 ± 20 A.D. levels at Moulton Park, Northamptonshire. There is too little pottery to draw firm conclusions. The sherds found could be contemporary, or slightly earlier than, those from Enclosure 2, phase I.

Rather more pottery was recovered from phase II contexts of Enclosure 2 (Fig. 16). The upright rim jar form (No. 2) was common on Northamptonshire sites and dated from as early as 200 B.C. at Hardwick Park till the conquest period at Wakerley. Elsewhere this form may have continued into the Antonine period. The presence of barrel or butt beaker types (No. 4) and cordoned sherds in this phase suggested it belonged to the same period as those with "belgic" forms and upright rim jars in Northamptonshire such as Moulton Park II, Aldwincle 3 and Wakerley 3. The cordoned neck jars (No. 3) have not been found at these sites, but in the author's experience are increasingly commonly found on Nottinghamshire sites and are associated with butt beakers, cordoned cups and jars. Thus a date from the late 1st century B.C. to the mid 1st century A.D. accords with these analogues and the small quantity of grey ware sherds (an everted rim and a rusticated sherd) found suggests this phase did not continue long into the early 2nd century A.D.

Several types from the site such as the carinated beaker (No. 12), rusticated jars (No. 7), flanged bowls (No. 6), platters (No. 9), calcite gritted bowls (Nos. 11 and 32), beaker (No. 30) and mortaria from Verulamium and Mancetter-Hartshill were of late 1st and early 2nd century date. The phase III palisade slot (612) contained pottery of this date together with some slightly later types of the late 2nd to 3rd century (Nos. 8, 10, 13, 14, 15, 21, 22). Most of the vessels were grey wares or BSB1 types common in the 2nd century and comparable to the products of the kilns at Doncaster, South Yorkshire; Knaith, Little London, and Lea, Lincolnshire dating to the 2nd and 3rd centuries.

The vessels from the midden deposit (1492; Nos. 33-8) were some of the latest types from a phase III feature. Many were burnt including the only samian sherd from the site, a late 2nd century A.D. Dr. 18/31, and a Mancetter-Hartshill mortarium dated to c. A.D. 135-170. The other vessels were long lived types which could be broadly paralleled in the South Yorkshire kilns from the late 2nd century to the 4th century A.D. The assemblage is dissimilar to the 4th century groups from the admittedly more distant sites of Staunton, Nottinghamshire,¹¹ and Sandtoft, South Humberside.¹² It compares rather better with the pottery from Elkesley and Green Mile Lane,¹³ sites within the brickwork plan field systems, where a 3rd century date was suggested although it remains possible that all three groups continued into the 4th century. There was no diagnostically 4th century pottery from the excavation or fieldwalking of the site. The absence of late mortaria may be significant since mortaria were present earlier in phase III, and 4th century types were found during fieldwalking at nearby South Leverton, Nottinghamshire. Given the apparently continuous typological sequence of the pottery from the 1st century A.D. to at least the late 2nd to early 3rd century A.D. this absence may indicate that the site was not producing ceramic rubbish beyond the 3rd century A.D.

The pottery types are limited in range. Sixty six percent can be paralleled in the Trentside kiln repertoire with prototypes accounting for a further six percent. During phases I-II, the cordoned jars, cups and butt beakers were of the late La Tène type known from Lincolnshire,¹⁴ and present in a similar assemblage at Rampton, Nottinghamshire¹⁵ where a small quantity of late La Tène forms were associated with native wares. In phase III also, a small number of vessels were similar to Lincolnshire types. Beaker No. 8 has affinities with the Lincolnshire Parisian ware tradition and platter No. 9 compares with platters from an Antonine kiln at Roxby. Some phase III vessels came from further afield, notably the Derbyshire ware jar, the Dales ware jar, the segmental bowls (Nos. 13, 45 and 20), possibly from the Doncaster kilns, the mortaria and the samian. The site drew most of its pottery from within a 25 km radius with a small percentage from as far as 44 km.¹⁶ The ceramic exotica of phase III is in keeping with the site's location near to the Doncaster-Lincoln road, and on the border of the Derbyshire and Dales ware distribution zones.

There were no colour coated wares from the site, save one sherd from fieldwalking, probably of Nene Valley ware. Fieldwalking at nearby Dunham and South Leverton, Nottinghamshire, produced more colour coated wares, some of late 2nd to 3rd century A.D. date, suggesting the wares were available in the vicinity of the site during phase III. Their absence at Dunston's Clump, and the lack of amphorae, flagons and fine wares generally may indicate a low level of Romanisation.

By contrast, the mortaria may have been adopted as an improvement on the large bowls already in use. Otherwise the range of vessels remained consistent in size and shape throughout the occupation: platters being replaced by dishes, cordoned jars by carinated bowls and wide mouthed jars, upright rim jars perhaps by deep bowls, and cordoned neck jars by everted rim jars. There is a conservatism in form which may match a conservatism in function.

TABLE 1

Form	Fabric											
	CTB1	CTB2	BSB1	BSB2	BSA1	GTA1	GR	BB1	DBY	DW	TS	MOR
Other							3					3
Narrow mouthed jar			1				2					
Storage jar							2					
Beaker							1					
Butt beaker			1		1	1						
Deep bowl	1	4	1				7					
Wide mouthed jar							6					
Carinated bowl			1				5					
Cordoned jar/cup			2		1	2						
Segmental or hemispherical bowl					1		4				1	
Dish							6					
Platter							1					
Jar: flat topped										1		
lid seated									1			
everted rim			3	10			15	1				
upright rim +												
neck cordon	1	5										
flat upright rim	2		1	3								

Table 1. Dunston's Clump pottery: incidence of forms in each fabric, using a minimum vessel count.

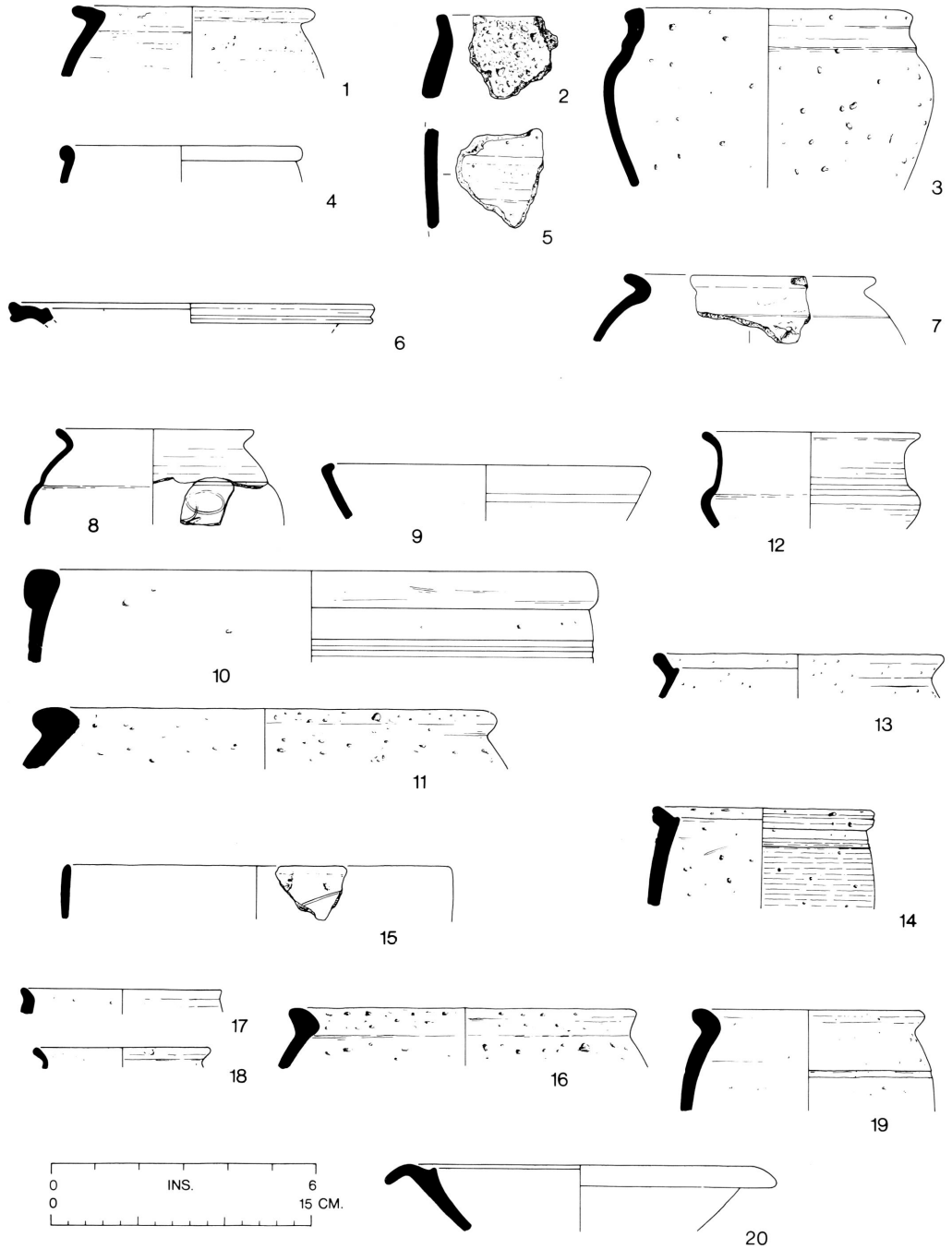


FIGURE 17
Dunston's Clump: pottery from Enclosure 2 (Table 2). Scale 1:4

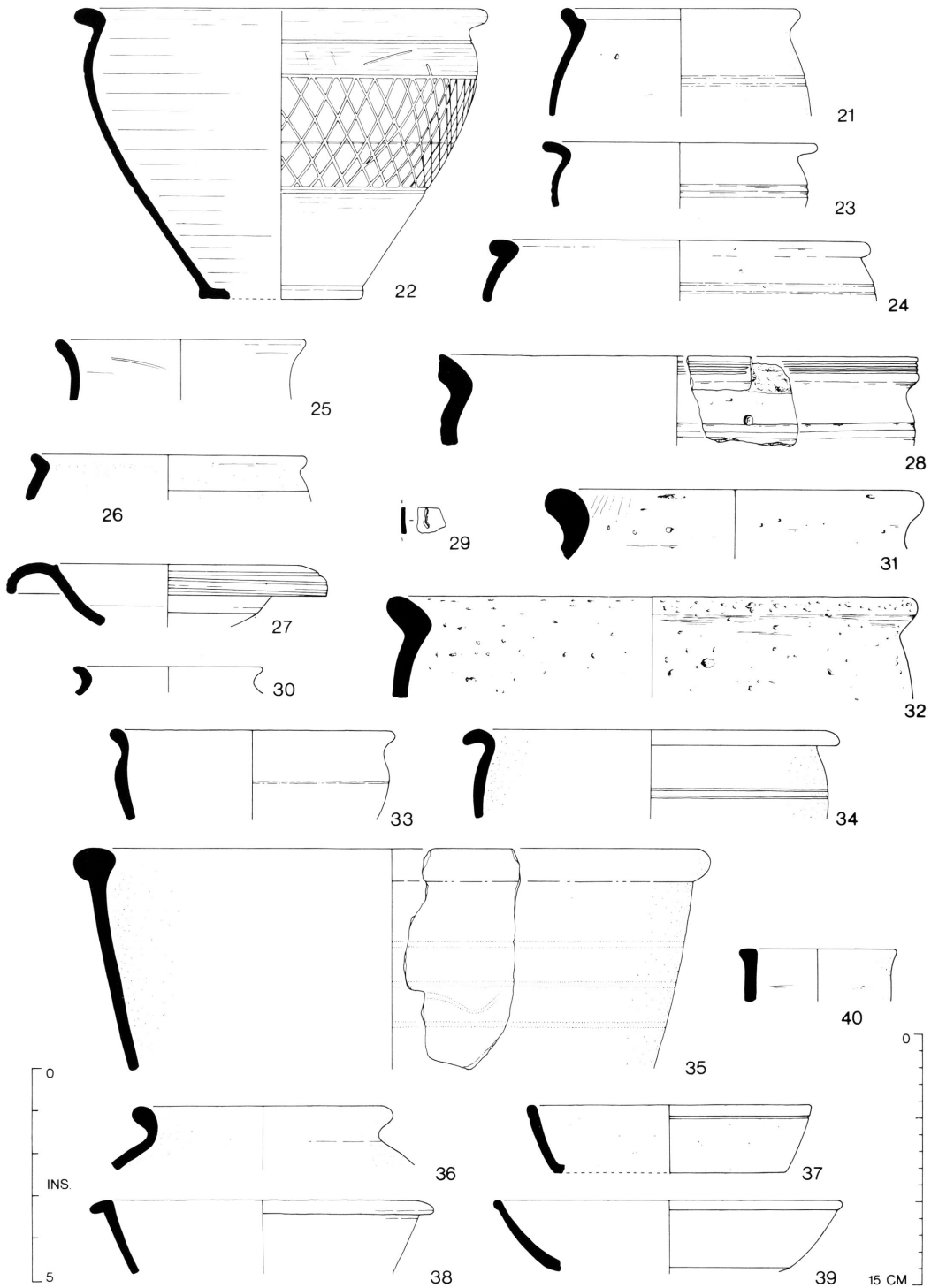


FIGURE 18
Dunston's Clump: pottery from Enclosure 2 (Table 2). Scale 1:4

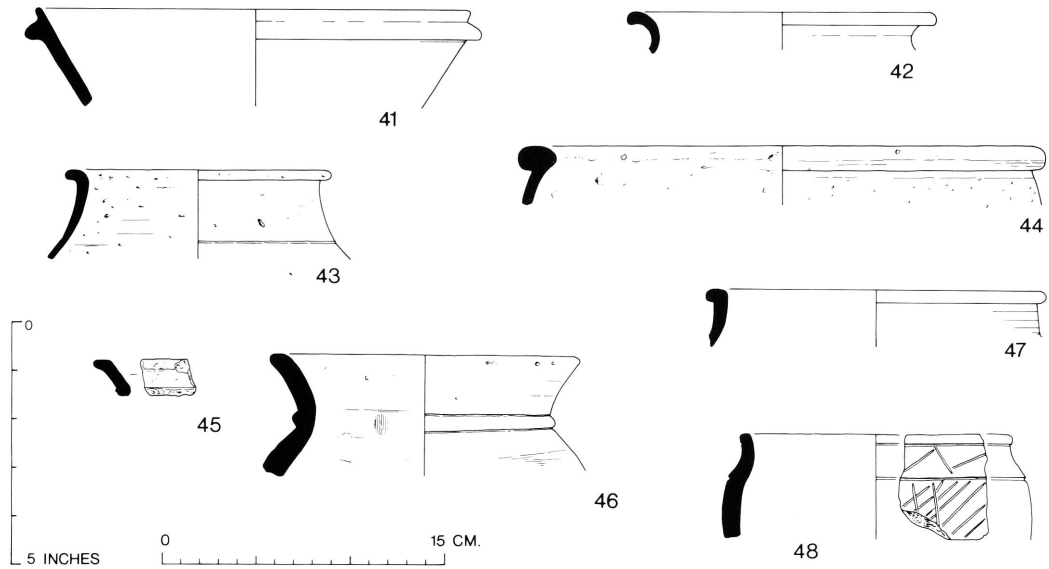


FIGURE 19

Dunston's Clump: pottery from Enclosure 2 (Table 2, Nos. 41–47) and Enclosure 3 (Table 2, No. 48). Scale 1:4.

TABLE 2

Detailed analogues and dating of the pottery by phase

<i>Feature Context</i>	<i>Fabric</i>	<i>Illustration</i>	<i>Published parallel and comments</i>
PHASE I (Fig. 5)			
1538 layer above pit 1540	BSB1	1	Everted rim jar cf. Hardwick Park, Northants., dated primary "belgic"; ¹⁷ Wakerley, Northants., 1st century A.D.; ¹⁸ Aldwinckle, Northants., associated with "belgic" wares. ¹⁹ Found at Holme Pierrepont, Notts. ²⁰ associated with scored ware and grog tempered wares of the 1st century B.C. to 1st century A.D. and later in grey wares (see Nos. 19–26 below).
PHASE II (Fig. 6)			
614 trench	CTB1	2	Simple upright rim jar, handmade, cf. at Hardwick Park, Northants., dated 200–150 B.C.; ²¹ Wakerley, Northants., associated with Belgic types and dated to the conquest period; ²² Moulton Park, Northants., in pre A.D. 10 ± 20 levels, ²³ Ramsdale Park, Notts., ²⁴ Attenborough, Notts., ²⁵ Staunton, Notts., ²⁶ Winterton, Lincs., in an Antonine level, ²⁷ Jewry Wall, Leics., in an early pit A.D. 35–50. ²⁸
636 post hole	CTB2	3	Upright rim jar with neck cordon, ?wheel thrown, common at Rampton, Notts., and generally dated to the 1st century A.D. ²⁹ Occurred at <i>Margidunum</i> , E. Bridgford, Notts., in a deposit dated A.D. 45–80, ³⁰ and a similar vessel occurred in a Claudio-Neronian group at Old Winterringham. ³¹ This form may have been ancestral to the Little London jars with external grooves, see No. 14.
636	BSB1	4	Barrel or butt beaker type rim of late 1st century B.C.–mid 1st century A.D. ³²
636	CTB2	cf.3	
636	BSB1	5	Bodysherd with two shallow grooves cf. butt beaker types. ³³
PHASE I, II OR EARLY IN PHASE III			
16 pit (upper layer)	CTB2	cf.19	

<i>Feature Context</i>	<i>Fabric</i>	<i>Illustration</i>	<i>Published parallel and comments</i>
	GRB1	cf.34	
	GRB1	6	Unusual flanged bowl, with bifid rim. A similar bowl was found at Doncaster and dated late 1st-early 2nd century. ³⁴
	OAB1		Bead rim hemispherical bowl with a zone of rouletting. A Dr. 37 copy, late 1st-2nd century A.D. Abraded.
(lower layer)	BSB1	cf.26	
	BSB1	cf.19	
912 pit	CTB2	cf.3	
240 pit	GRB1	cf.35	
	GRB1	cf.26	
	GRB1	7	Rusticated jar, late 1st-2nd century A.D.
1152 pit cut by trench 632	CTB2	cf.3	

PHASE III

Slot 612 and related features (Fig. 10)

612 slot	GRA1	8	Everted rim globular beaker/jar with burnished loop decoration. This had affinities with 'London Ware' types and Parisian ware dating to the late 2nd and continuing into the 3rd century A.D. in Lincolnshire. ³⁵
	GRA1	cf.8	Body sherd from similar type of vessel with notch rouletting or roller stamping: these were similar to motifs from Rossington Bridge. ³⁶ These two pieces may not be true Parisian ware, but are related in style.
	BSA1	9	Lipped lid or platter. This was more probably a platter of Camulodunum type 28, ³⁷ cf. Flavian-Antonine type from Roxby. ³⁸
	GRB1		Rusticated sherd of late 1st-2nd century A.D.
	GRB1	10	Squared bead rim bowl, similar to deep bowls from Little London, Rossington Bridge and Knaith suggesting a late 2nd to 3rd century A.D. date. ³⁹
	CTB2	11	Clubbed rim bowl cf. Flavian-Trajanic types at Old Winteringham. ⁴⁰
	GRA1	12	Everted rim carinated bowl, cf. bowls from Doncaster-Rudstone, Yorks., dating to late 1st-2nd century and continuing in use until mid 3rd. ⁴¹
	GRB1	cf.12	
	BSB1	cf.26	Burnt.
1360 part of 612	GRB1		Two ribbed handle.
8 post hole in 612	GRB1	cf.12	With bifid everted rim.
307 pit cutting 612	GRB1	cf.7	
216 pit cutting 612	BSB1	cf.19	
	DBY	13	Derbyshire ware lid seated jar, late 2nd century A.D. ff.
	CTB2	14	Little London type jar, late 2nd-early 3rd century A.D. cf. Little London, Lincs., and Cantley, South Yorkshire. ⁴²
672 pit cutting 614	CTB2	cf.3	

Phase IIIa partitions (Fig.10)

6 trench	BSB1	cf.26	
38 trench	GTA1		Cordoned body sherd of ?late La Tène jar.
166 post hole in 38	GTA1		Cordoned sherd of ?butt beaker cf. <i>Camulodunum</i> . ⁴³
291 trench	BSB1	cf.19	
608 = trench 610	GRB1	15	Plain rimmed dish with burnished wavy line.
	GRB1	cf.26	

<i>Feature Context</i>	<i>Fabric</i>	<i>Illustration</i>	<i>Published parallel and comments</i>
610 upper fill of 610	CTB2	16	Clubbed rim of deep bowl cf. Claudio-Neronian example from Old Winteringham, Lincs., ⁴⁴ and a legionary ditch deposit at Lincoln, Lincs. ⁴⁵
	BSB1	17	Everted rim.
	GRA1	18	Everted rim beaker.
	GRB1	19	Slightly clubbed everted rim similar to No. 26. Occurred at Scratta Wood, S. Yorks., ⁴⁶ and Ramsdale Park, Notts. ⁴⁷ Examples in CTB and BSB1 fabrics seemed to change to grey ware in the 2nd century A.D.
	GRB1	20	Flanged segmental bowl. A common late 1st to 2nd century A.D. form, well known from Little Chester, Derby kilns, but also produced at the later Cantley kilns, Doncaster, S. Yorks. ⁴⁸
53 post hole in 14	GRB1	21	Slightly lid seated everted rim jar. A form similar to the pre Derbyshire ware jars at Little Chester, Derby, 2nd-early 3rd century A.D.
	GRB1	cf.28	Same as No. 28.
	GRB1	22	Wide mouthed everted rim jar burnished all over with lattice zone. See No. 33 for comments.
14 trench	GRA1	23	cf. No. 14. Everted rim jar with double cordon.
	GRA1	23	cf.41. Abraded.
	BSB1	24	see 19 for comments.
	GRB1	25	see 12 for comments.
<i>Phase IIIb partitions</i> (Fig. 10)			
604 trench	BB1		Bodysherd of jar with acute lattice burnishing.
620 = trench 604	GRB1	26	Simple short everted rim jar. A type common on 1st century B.C. to 3rd century A.D. sites, and probably later: cf. S. Anston, S. Yorks., ⁴⁹ Scratta Wood, S. Yorks., ⁵⁰ and Ancaster, Lincs. ⁵¹
4 trench	GRB1	cf.26	
1436 part of trench 1438	GRB1		Rusticated sherd.
<i>Structures 2 and 3</i> (Fig. 12)			
303 St.2, upper pit	BSA1	27	Unusual flanged dish with reeded flange, cf. an example from an Antonine kiln at Roxby, Lincs. ⁵²
	GRB1	cf.26	
295 St.2, post pit for Post 391	BSA1	27	Same vessel as from 303.
385 St.3, post pipe	GRB1	cf.34	
<i>Structure 5</i> (Fig. 13)			
42 post pit	GRB1	28	Bead rim jar with external groove on rim. This variant is known from the earlier Doncaster, S. Yorks., kilns, and at Little London, Lincs. ⁵³ This is the same vessel as that from feature 53.
51 post pit	GRB1	cf.31	
119 post hole	GRB1	cf.29	
<i>Structure 9</i> (Fig. 10)			
208 post hole	GRA1	29	Bodysherd with linear rustication.
	GRA1	30	Short everted rim from beaker/jar of late 1st-2nd century A.D. At Little Chester, Derby, this form occurred with rusticated jars and was interchangeable in size, rim form and upper body decoration.
<i>Structure 10</i> (Fig. 11)			
1606 post pit	GRB1	31	Everted rim storage jar.
1382 post hole	CTB2	32	Deep bowl with everted rim of an earlier type than No. 8. cf. Old Winteringham in Claudio-Neronian levels. ⁵⁴

<i>Feature</i>	<i>Context</i>	<i>Fabric</i>	<i>Illustration</i>	<i>Published parallel and comments</i>
<i>Midden or destruction deposit 1492 (Fig. 10)</i>				
1490	part of 1492	GRB1	33	Wide mouthed everted rim jar. A variation of a type occurring from the Cantley, S. Yorks., kilns, ⁵⁵ and also the Trentside group 2nd-3rd century A.D. ff.
		GRB1	34	Wide mouthed outcurved rim jar. A variation of No. 23 found at Little London and Knaith, Lincs., and Cantley, S. Yorks. Burnt.
		GRB1	35	Bead rim deep bowl with wavy line burnishing and stabbed decoration. Paralleled at Little London, Lincs., and Cantley, S. Yorks. ⁵⁶ Burnt.
		GRB1	36	Slightly thickened everted rim jar. Paralleled at Little London. Burnt.
		GRB1	37	Grooved rim dish. Burnt.
		GRB1	38	Lipped dish.
		Mortarium		Body and flange of a Mancetter-Hartshill mortarium c. A.D. 135-170. Burnt.
1492		CTB2	cf.19	
		BSB1	cf.26	
		TS	39	Dr. 18/31, 2nd century A.D.
		GRB1	40	An unusual rim sherd of a ?narrow mouth jar.
		CTB2	cf.16	
This group would fit a late 2nd-3rd century A.D. date range, but a date into the 4th century A.D. is possible.				
PHASE II OR III				
778	destruction deposit in top of trench of St.1	GRB1	41	Flanged bowl of late 2nd-3rd century A.D.
948	post pipe of St.1	GRA1	42	Everted rim. Both Nos. 41 and 42 fit well with deposit 1492, and were probably derived from it.
818	pit cutting Trench 614	GRB1	cf.33	
994	?post hole cutting 614	CTB1	cf.2	
ENCLOSURE DITCH 750				
750		CTB1	cf.3	
		BSB1	43	Grey narrow mouthed everted rim jar cf. Little London products.
		BSA1		Bodysherd of ?cordoned jar.
		OAB1	cf.20	Burnt.
		Mortarium		Body sherd of Mancetter-Hartshill mortarium, A.D. 150-350.
UNPHASED FEATURES				
271	Pit or post hole	Mortarium		Base fragment of mortarium from the Verulamium region. The date range was c. A.D. 49-200, but it probably dated to c. A.D. 70-130 when these potteries had the widest markets.
401	pit	GRB1		Lid.
692	linear feature	BSB2	cf.2	
774	?post hole	DW	45	Dales ware jar rim, 3rd-4th century A.D.
824	post hole	GRB1		Lid.
856	pit	GRA1	cf.12	Carinated bowl.
		BSB1	44	Deep bowl with clubbed rim cf. Old Winteringham in Flavian-Trajanic deposit. ⁵⁷ This context was probably late 1st to early 2nd century A.D.
884	post hole	Mortarium		Flange and bead flake of a Mancetter-Hartshill mortarium, A.D. 130-200.
1002	pit	GRB1	cf.34	

<i>Feature</i>	<i>Context</i>	<i>Fabric</i>	<i>Illustration</i>	<i>Published parallel and comments</i>
1104	uppermost fill of pit	BSB1	cf.25	
1170	pit	BSB1	cf.2	
1290	post hole	GRC1		?Lipped dish.
1334	post hole	OBC1	cf.14	
1356	pit	BSB2	cf.2	
1486	linear feature	CTB1	cf.32	
1506	post hole	OBB1	cf.34	
1568	pit	BSA1	46	Late La Tène cordoned jar.
		BSB1	47	Bead rim necked jar, burnished, of Late La Tène type. This context may be phase I.
1572	pit	GTA1		Small burnished bead rim possibly of Late La Tène cordoned cup.

ENCLOSURES 1 AND 3

544	Enc.1 ditch	GTA1	cf.32	
546	Enc.1 ditch	GRB1	cf.35	
512	ditch	GRB1	cf.26	
		GRB1	cf.36	
554	ditch	GRD	cf.35	
540	post hole	GRB1	cf.35	
		GRB1	cf.36	With cordoned neck.

The pottery from this area was similar to the pottery from the midden deposit (1492) and phase III, and is dated tentatively to the 3rd century A.D., although a 4th century date remains a possibility.

Unstratified

CTB2	48	Simple upright jar with even deeply incised decoration. Oblique and vertical incisions, cf. Moulton Park, Northants., ⁵⁸ in pre 10±20 A.D. levels, and a sherd from an early ditch at Little Chester, Derby. Pre-Roman Iron Age type.
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IRON ARTEFACTS (Fig. 20)

by MICHAEL DAWSON

49 This square sectioned implement is most probably a punch. (It is unlikely to be a large nail of Inchtuthil Group A (Brading Type 1) because the thick end lacks the characteristic swelling one would expect with a large nail head.) There is a similar punch from a Roman context at Gadebridge, Hertfordshire.⁵⁹ Context 1490, which is part of the midden or destruction deposit 1492, phase III (Fig. 10).

50–58 No. 50, two simple round sectioned ring hinges (one illustrated); No. 51, angle-iron and clench nail; Nos. 52–55, nails with flat heads and tapering shafts, No. 52 clenched at 20 mm, Nos. 53–54 clenched at 43 mm; No. 56, plate; No. 57, slightly bent nail; No. 58, flat fragment. This collection with charcoal from the same pit (1066) probably represents the remains of a metal bound oak box (p.54) of which examples are familiar from Roman contexts.⁶⁰ The fittings are probably not from a structure such as a door because the ring hinges do not work efficiently in a horizontal plane. The clenched nails suggest that the box or small chest was made from wooden planks some 20 mm thick. The chest lid was hinged with the simple ring hinges which were hammered into place and clenched to secure. One side of the clenching is at 21 mm and 22 mm respectively, the other at 39 mm and 42 mm which suggests that the box lid may have been a single piece of wood. The corners of the box were reinforced with an angle iron of which only one survives (No. 51), with perhaps the fragment of another (No. 56). The quality of the hinges, the various sizes of the nails and the poor clenching of the nails argues for a box of very rough construction. There are two other nails 40 mm long from this context, one straight and one bent (No. 57), and a flat piece (No. 58) with one expanded end (complete?), and a fractured narrower end. They might have been part of the box fittings.

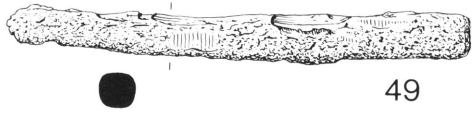
Feature 1066, pit fill, phase III (Fig. 10).

A simple, oval, buckle loop and tongue, similar to examples from Lankhills grave 497,⁶¹ and Porchester in copper alloy.⁶² Not illustrated.

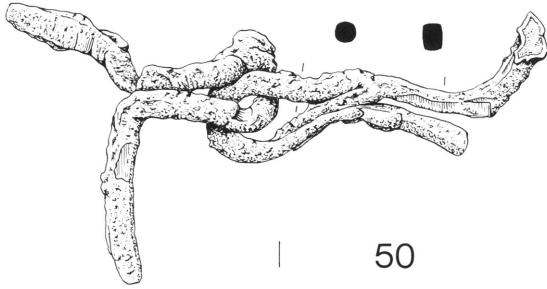
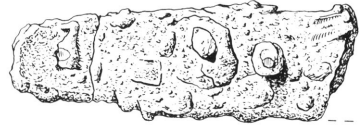
Feature 684, post hole, phase II (Fig. 6).

DUNSTON'S CLUMP AND THE BRICKWORK PLAN FIELD SYSTEMS

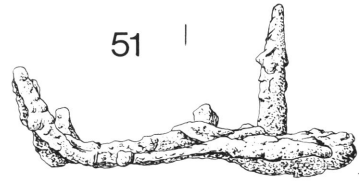
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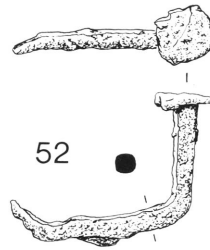
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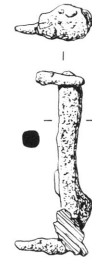
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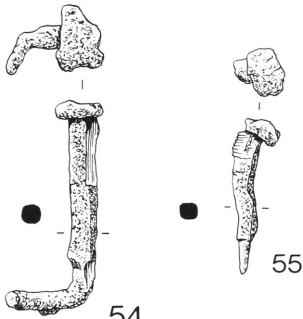
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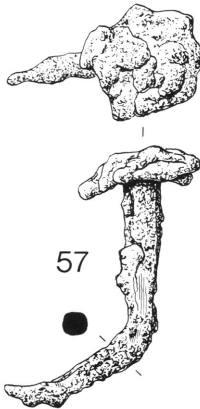
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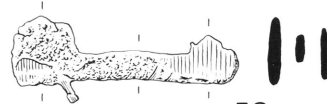
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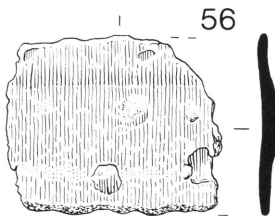
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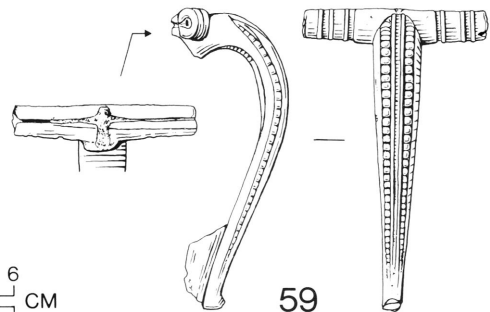
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58



56



59

FIGURE 20

Dunston's Clump: metalwork from Enclosure 2: iron (Nos. 49-58); copper alloy (No. 59).
Nos. 49-58 scale 1:2; No. 59 scale 1:1

COPPER ALLOY ARTEFACTS (Fig. 20)

by DONALD MACKRETH and MICHAEL DAWSON

Colchester Derivative Brooch (D. Mackreth)

59 Both the hinged pin and its axis bar are missing. A slot had been cast behind the wings to house the axis bar which when inserted, was sealed by bending the sides of the slot towards each other leaving a seam along the back. Each wing has a broad beaded moulding bordered by a narrow plain one, then, on either side, a deep groove. The very end of each wing is corroded, but may have been beaded. The bow has a central groove bordered by a ridge, then a bead-row and finally a plain stepped edge. The bow tapers to a small projecting foot and has a slight recurve in its profile. The catch-plate is small and has lost its return.

Relatively elaborately moulded wings and bows on Colchester Derivatives are not particularly common and, if the parallels are confined to beading on either or both and, in the case of bows, the beading is part of a fully moulded scheme, the parallels are to be sought almost exclusively in the type of sprung-pin Colchester Derivative which uses a simple rear hook to hold the spring in place: Woodcock Hall, Saham Toney, Norfolk—four examples;⁶³ Soham, Cambs.,⁶⁴ south of England and unprovenanced;⁶⁵ Great Casterton, Leics.;⁶⁶ unprovenanced, but probably from Cambs.;⁶⁷ and Bagendon, Glos.⁶⁸ Only the last is published and, fortunately, comes from a dated context: c. 43–50 A.D. As a group, however, the 'rearhook' type of derivative seems hardly to last beyond the period c. 60–65 and its area of distribution is markedly in eastern England, being particularly common north of the primary area of the Colchester Type itself and its main sprung-pin descendant.⁶⁹

Turning to hinged examples of Colchester Derivatives which may be said to parallel the basic scheme used on the present brooch, it may be significant that they seem to have a relatively tight distribution which overlaps that of the 'rearhook' type of Colchester Derivative with a slight shift to the west and north. Few have been published and the pattern of distribution is given by the following: Hibaldstow, Lincs.;⁷⁰ Lincoln;⁷¹ *Margidunum*, Notts.;⁷² Milton, Cambs.;⁷³ Cambridge;⁷⁴ Saham Toney, Norfolk;⁷⁵ Ixworth, Suffolk.⁷⁶ In other words, the style, as it must be called as there is not yet sufficient cohesiveness to talk of a type, displays an East Midland and East Anglian bias. It is possible that the sprung-pin and hinged-pin brooches summarized above are directly related in that the single hook behind the head of the bow of the former was clearly an inefficient system as the spring was so easily lost. The limited date range covered by all the 'rearhook' brooches surely reflects this as it is short: none has been published from a pre-Conquest context and the other limit for its *floruit* seems to be 60–65 and it is possible that, rather than the type disappearing altogether, the various styles were converted to a more long-lasting kind of brooch by replacing the hook by a hinged pin. However, it is a moot point as to whether the ornamental pattern under discussion should be regarded as running on from the end of the use of the hook, or there was an overlap between the two, or that the two pin-fixing arrangements ran concurrently for the life of the sprung-pin variety. None of the hinged-pin brooches is dated, but overall ornament of this kind is not usually expected on late Colchester Derivatives and it may be that all brooches employing it should be dated to before c. 75 A.D.: confirmation or otherwise is awaited.

Feature 240, pit filling, pre phase IIIb (Fig. 6)

Pin fragment (M. Dawson)

A round section pin fragment had copper alloy wire coiled around one end of it and is probably the remains of a pin similar to that from Lankhills grave 336.⁷⁷ The pin in this instance has a glass bead attached to its end by the wire. Alternatively, it may be the basis of a pin like Richborough 147⁷⁸ with caduceus (two entwined serpents) head. The pin fragment is most certainly Roman, but it is not chronologically diagnostic. Not illustrated.

Feature 164, shallow ?pit, not phased (Fig. 14).

WOODEN ARTEFACTS (Fig. 21)

by DARYL GARTON and CHRISTOPHER R. SALISBURY

Pieces of worked wood (now charcoal) were recognised from the samples taken for flotation. Most of the worked pieces came from pit 1066 (Nos. 60–66); their size enabled them to be recognised and extracted before flotation.

60–66 The worked wood from pit 1066 comprises radially split oak planks (no saw or adze marks were identified) with grooves, laps, dowel holes and pegs recognised. The charcoal is broken and very flaky (now consolidated) so original surfaces were not always clear, though those confidently identified are indicated in Fig. 21. The plank widths vary from c. 16–24 mm. Several of the plank fragments (12) have one or two rectangular grooves cut into them; those with two grooves occur in both parallel (No. 66) and right angle planes (Nos. 64, 65). Two grooved planks have dowel holes at the base of the grooves (Nos. 62, 63 with peg *in situ*), with a possible half-lap tongue at one end of No. 63. No. 63 is grooved to receive another plank in the same plane, No. 62 at right angles. Some pieces have dowel holes (No. 60), with three pieces containing a peg *in situ* (Nos. 61, 63).

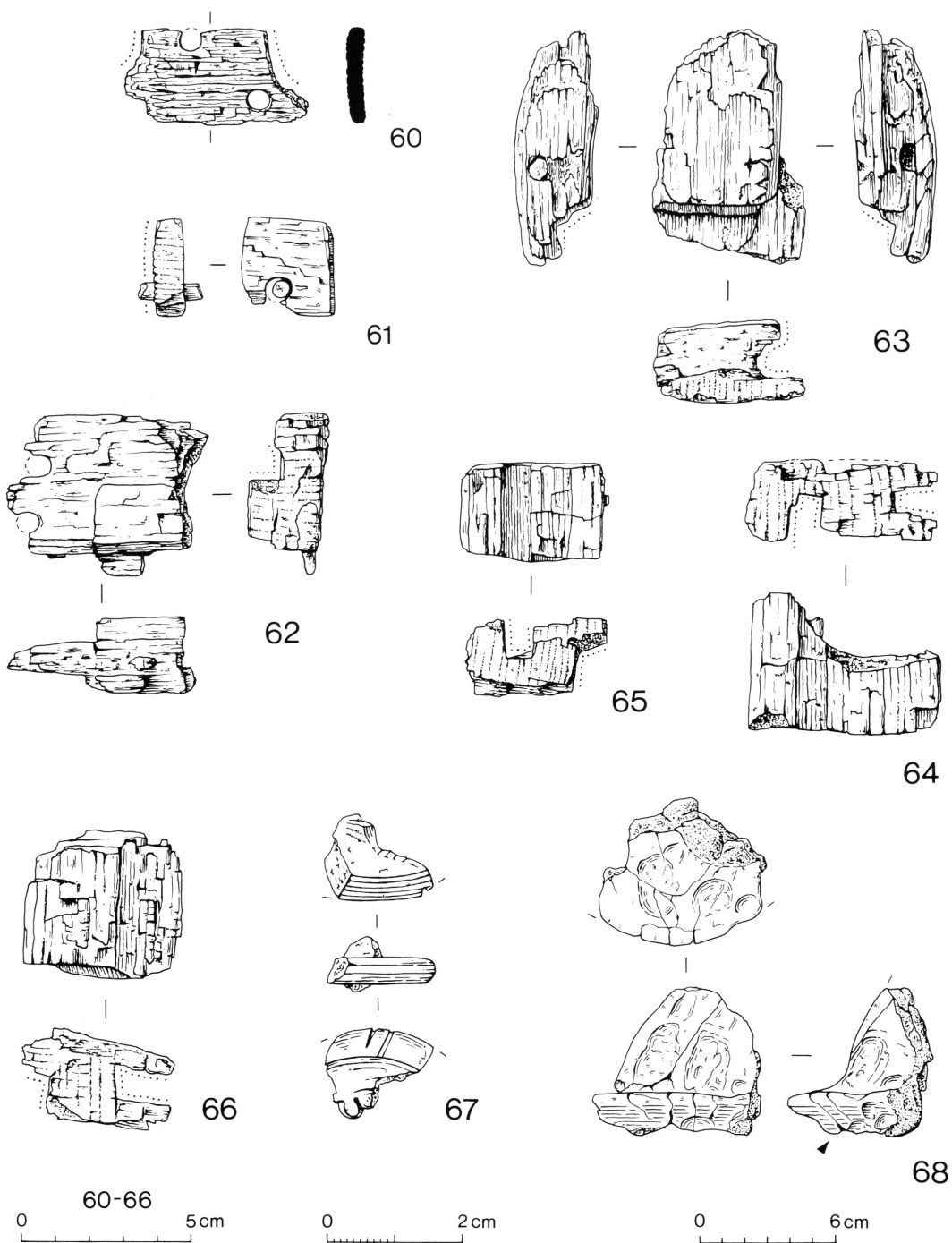


FIGURE 21

Dunston's Clump: artefacts from Enclosure 2: charred wood (Nos. 60-7) and baked clay (No. 68). A dotted line indicates original surface. Nos. 60-6 scale 1:2; No. 67 scale 1:1; No. 68 scale 1:3

The grooved, lapped and dowelled pieces might all belong to one object, and their recovery in a single deposit from pit 1066 with the iron objects (Nos. 50–58) suggest that they are the wooden remains of an iron-bound box. This interpretation is consistent with the presence of right angled fittings to accommodate the base and sides, or two sides, of the box (Nos. 62, 64, 65), with perhaps a central rib (No. 66) joining two planks for the lid, or base, of the box. As the ring hinges (No. 50) are clenched at one and two plank widths (21/22 mm and 39/42 mm) suggesting that the lid may have been a single piece of wood, a central rib (No. 66) may have joined two planks of single width to form that lid. The box was fitted with wooden pegs which reinforced the tongue and groove joints. The clenched nails (Nos. 52–55) might have been part of the original box construction, a later repair, or from another construction.

A squared piece of timber with a worn, rounded end (not illustrated), and three wavy twigs of willow (diameter c. 3 mm, not illustrated) were also recovered from this pit filling. The twigs may perhaps be interpreted as the remnants of wickerwork or basketry.

Feature 1066, pit filling, phase III (Fig. 10).

- 67 Fragment of charred wood (diffuse porous wood, possibly willow or poplar). Circular object c. 20–25 mm diameter that has been worked (probably turned), on both sides. The pit in the central raised area might indicate that this was unfinished or broken though the turning on both sides suggests intentional working of the piece. Small turned wooden objects have been found on other Roman sites, and are often called spindle whorls, e.g. Chew Valley, Somerset.⁷⁹ This object may have been part of a toggle or fastening; its central raised area makes it unlikely to have been a counter.
Feature 1516, pit fill, phase I (Fig. 5).

BAKED CLAY (Fig. 21)

by DARYL GARTON

- 68 Part of a roughly-fashioned baked clay cone with a flange could be constructed. The complete shape of the object is unknown as it is crudely made and the edges are abraded, thus making the difference between worn breaks and original edges indistinct. The flange may have been the centre of the object, with a cone on either side, or the flange may be close to the base of the object (arrowed). This object is unlike hand bricks, kiln furniture or cob oven pieces reported elsewhere; it is poorly fired and its fabric resembles that of loomweights.⁸⁰ It may have been a weight or a plug, or used for some other purpose.
Feature 465, post pipe in post pit of Structure 2, phase III (Figs. 11, 12).

Most of the other lumps of baked clay from the site were amorphous, but twenty pieces from six different features retained stick impressions presumed to be from wattle hurdles. The impressions ranged from c. 125–300 mm in diameter, thus rods and sails may both be represented. The baked clay could be the remains of ovens, walls or other structural features. Not illustrated.

Approx. diameter of impression	125	150	175	200	250	300 mm
Number of pieces	2	4	3	5	5	1

STONE ARTEFACTS (Fig. 22)

by MALCOLM B. FENTON and DARYL GARTON

Four stone artefacts were found, three quern stones and one grinding stone.

- 69 Complete topstone of flat rotary quern of medium grained sandstone, possibly from the Coal Measures. The exterior and central funnel have been shaped by pecking. The approximately ovoid handle slot has been finished by grinding, and is the full depth of the present stone. The grinding surface is concave and slightly pitted, but with smoothed surfaces surrounding the central funnel and the handle slot.
This quern stone was found upside down at the base of a possible post hole. It may have been inserted to stop a post sinking into the soft subsoil, and this may have caused the quern stone to break.
Feature 1046, possible post hole, not phased (Fig. 14).
- 70 One illustrated piece of four of coarse grained sandstone, probably Millstone Grit, from three different contexts (1490, 818, 816). Two of the pieces (from contexts 1490 & 818) join, and the similar height and diameter of the other pieces suggest that they were originally all part of one stone. The largest piece (illustrated) is drawn with the grinding surface uppermost. The exterior and central funnel have been shaped by pecking. The central funnel increases in diameter towards the grinding surface. The grinding surface is flat but worn and pitted.
Feature 1490, part of the midden or destruction deposit 1492, phase III (Fig. 10).
Feature 818, post hole with stone packing, phase II/III (Fig. 6).
Feature 816, post hole with quern stone in post pipe, phase II/III (Fig. 6).
- 71 Beehive type quern of medium grained sandstone, origin unknown, but possibly from the Coal Measures. The central funnel and exterior was shaped by pecking. Part of the upper exterior surface has been worn

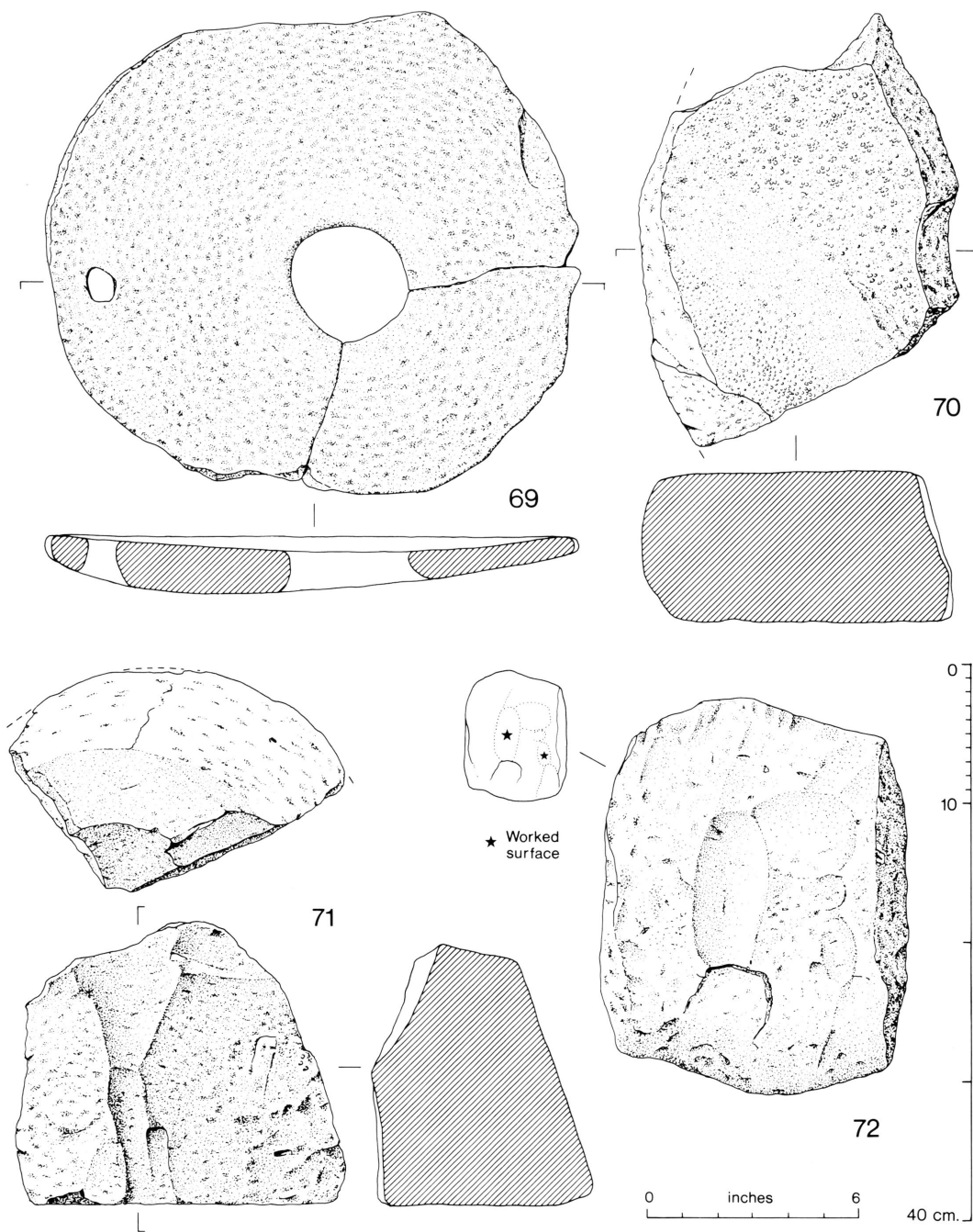


FIGURE 22
 Dunston's Clump: stone artefacts from Enclosure 2: querns (Nos. 69-71); stone with ground facets (No. 72).
 Scale 1:5.

smooth and concave. The central hole is at an angle to the grinding surface. Adjacent to the central hole, another one was started from the grinding surface. The grinding surface has been worn smooth and slightly convex.

Feature 612, filling of palisade slot, phase III (Fig. 10).

- 72 Large cobble of fine grained sandstone, origin unknown, but it could be local. The shaping on the upper surface is probably natural, but the lower surface was used for grinding in at least two places. The grinding facets were c. 450 mm and 250 mm wide.

Feature 399, post pit in Structure 9, phase III (Fig. 10).

THE SLAG

by GERALD McDONNELL

Fuel ash slag was recovered from many of the soil samples taken for flotation and wet sieving. Fuel ash slag appears to be the high temperature reaction of fuel and siliceous materials. It may simply occur when wood and sand are burnt at high temperatures. It can be found in the ashes of modern bonfires, and need not have any special technological or metallurgical significance.

THE FLINTWORK

by DARYL GARTON

Nine struck flint flakes were found in the excavated area. Six of these were recovered in the filling of the enclosure ditch 750, and were obviously residual. They included three small blades (one was used), and a flake struck to renew the striking platform of a core. A small used blade was also found in the subsoil.

Twenty-five pieces of struck flint were found during fieldwalking by J. Eccles, R. Minnitt, D. Riley and the writer. They included three cores, two scrapers, four used flakes, a knife (retouched through patina), a microlith (obliquely blunted point) and a burnt piece from a keeled core or possibly a flake from a small battered adze. One small polished stone adze was also found; the light green colour of the stone suggests that it was probably part of a group VI (Langdale) implement.

The flint used was from two sources; boulder clay derived material, and the Lincolnshire Wolds. The preserved cortex would be consistent with material from river gravels, and could have been collected locally. Such a small collection of artefacts is impossible to date securely, but the microlith should be Mesolithic, whereas the polished stone adze and the knife probably date to the late Neolithic period. This material, along with other flintwork collected from adjacent fields by J. Eccles, probably represents sporadic prehistoric activity in this area.

THE PLANT REMAINS

by GLYNIS JONES

Soil samples were taken from features within Enclosure 2 where charred material was visible (p.21). They were processed for plant remains by flotation on site using a 0.5 mm mesh sieve. A proportion of the residue from each sample was also wet sieved with a 0.5 mm mesh. The flot from most samples was totally sorted though two samples, which contained large quantities of plant remains, were randomly subsampled such that the resulting subsamples produced approximately 500 items.⁸¹ Where these produced significant quantities of remains, all the available residue was sorted. The plant remains were identified with the aid of a light microscope and the identifications are given in Tables 3 and 4.

A number of cultivated cereals was identified including six-row hulled barley (*Hordeum vulgare*), rye (*Secale cereale*), spelt (*Triticum spelta*), bread wheat (*T. aestivum*) and possibly emmer (*T. cf. dicoccum*). Of the wheats only spelt occurred in quantity; emmer and bread wheat were present as minor contaminants only. Similarly, while the presence of two-row barley (*H. distichum*) or naked barley cannot be ruled out (there were many indeterminate grains), the predominance of twisted grains over straight grains (in a ratio of approximately 2:1), amongst the determinate grains, and the absence of definitely naked grains indicates that the six-row, hulled form was dominant. Oat grains were also present but two oat lemma bases could be identified as a wild species (*Avena fatua* or *A. ludoviciana*) and a third could be either a cultivated species (*A. sativa* or *A. strigosa*) or an upper floret of the wild species (*A. ludoviciana*). Two seeds of flax, at least one of which was probably of the cultivated species (*Linum cf. usitatissimum*), were also identified. Spelt was an important crop in Britain

throughout the Iron Age and hulled six-row barley was also common.⁸² Rye and oats have been extensively recorded from the Roman period and a few finds of Roman flax are known.⁸³

Phase II samples

It is sometimes possible to identify the stage of processing at which individual samples became charred.⁸⁴ For example, a sample from post pipe 988 of Structure 1 consists predominantly of rye grains which seem to have been fairly thoroughly cleaned of chaff and weed seeds. This suggests that it was destined for human rather than animal consumption which is consistent with the interpretation of Structure 1 as a farm house. The high concentration of seed (see Table 3) also suggests that it may have been the result of a single accident discarded at one time⁸⁵ and having later found its way into the post pipe. A sample from post pipe 1122 of Structure 1 consists almost entirely of weed seeds with only a few cereal grains including oats, which could also have been wild. This sample is most likely to result from the final stages of crop cleaning when weed seeds would be removed by sieving and hand-picking. Both large (e.g. *Bilderdykia convolvulus*) and small (e.g. *Chenopodium album* type) weed seeds are represented in the sample suggesting at least some hand-picking to remove the larger seeds. The low concentration of seed may suggest that this was a repeated activity in the area,⁸⁶ the remains possibly being thrown onto a household fire which was later cleaned out. Again, this is the sort of activity which might well have been carried out at a farm house as part of final food preparation.

Phase III

Four of the samples from the post pipes of Structures 2 and 3 (465, 329, 381 and 397) contained predominantly barley or spelt chaff, or a mixture of the two, with little contamination by weed seeds. Both these commodities would be suitable for animal fodder. Some explanation of how fodder became burnt *in situ* is necessary, however. Either the remains represent sweepings from animal stalls which were burnt nearby, perhaps with dung, or they result from the destruction by fire of one of the buildings, the charred plant material finding its way into the post pipes during salvage or rebuilding operations. The high concentration of plant remains favours the latter explanation as it suggests a single accident rather than a repeated activity. The only other major source of contamination in these samples (especially in the sample from Post Pipe 465 of Structure 2) is from oat grains, some of which can be identified as wild by the lemma bases in the sample. It is unlikely that wild oats would have been removed from crops intended as animal fodder.

A sample from Pit 704 was also predominantly of barley, but the grains were much less well preserved and less closely identifiable, though some at least were hulled and two rachis fragments were of the six-row species. This sample was also contaminated by quantities of weed seeds and heather (*Calluna vulgaris*) fruits. This plant could have been collected from sandy heath⁸⁷ for use as bedding, possibly for stalling animals, though the burning of turf is another possibility. Some of the weed seeds (e.g. *Chenopodium album* type, *Bilderdykia convolvulus* and *Galeopsis cf. tetrahit*) could be present as weeds of the barley (as could oats), suggesting that it had not been fully cleaned at the time of charring, while others could have come in with the heather. Sample 691 from a pit which could belong to Phase I, II or III was also dominated by barley.

Two other samples from pits of phase III are of interest. The first of these 1066 consisted predominantly of wheat grains with some rye and oat (including one lemma base which could be of cultivated oat). Most of the grains had sprouted making identification difficult but the grains which could be positively identified were all of wheat. Some straw nodes and a few weed seeds were also found in this sample. The predominance of grain, however, and the high density of plant remains point to a single episode. It is possible that the grain was

accidentally charred when it was being dried as part of the malting process⁸⁸ or in an attempt to prevent further germination. Alternatively, the sample could represent the 'skin' of germinating grain which lines storage pits⁸⁹ and which might be charred during sterilisation of the pit by fire. In this instance, the latter interpretation is unlikely since the other burnt items (which include the wooden box with the iron fittings) suggest household rubbish; there was no sign of *in situ* burning on the sides and base of the pit, and no evidence of any lining material which might have been expected in these damp sandstones. The other sample (1110) is also dominated by wheat, especially spelt though possibly including some bread wheat. The ratio of glume bases to grains in this sample approaches that expected for whole spelt ears (i.e. 1:1), even though some of the grains may be of bread wheat. A rather similar sample was found in the remains of a corn-dryer at Bunny.⁹⁰ It seems likely that this sample had not yet been fully cleaned though the high proportion of grain and high concentration of plant remains suggest that it is not cleaning waste. It is quite common, especially in wet areas like Britain, for spelt to be stored as whole spikelets after threshing to break up the ears.⁹¹ It is more resistant to fungal and insect attack in this state and the final dehusking can be carried out piecemeal throughout the year. It is usual to parch the spikelets to render them brittle prior to dehusking and it is possible that this sample was charred during parching.⁹² The later mixing of grain and chaff cannot be ruled out though this is most likely to occur when chaff is used as fuel for grain drying. These two samples suggest a rather different range of activities to the other phase III samples and it seems likely that a wide range of activities was carried out. Perhaps these two pits were receiving discarded products of accidents in an oven or ovens used for a variety of different purposes.

Unphased samples

In two of the unphased pits 401 and 1374 barley predominated in varying concentrations while a sample from a third pit 630 consisted almost entirely of heather fruits which presumably represent the remains of bedding or fuel. Finally, a sample from one of the unphased post holes 668 consisted mainly of weed seeds and grass rhizomes with a few glume bases. Many of the species represented (e.g. *cf. Ranunculaceae*, *Eleocharis palustris* type, *Carex* spp. and *Danthonia decumbens*) could occur in damp grassland and so could result from the collection of hay for fodder or bedding.

Comment

Of the phased samples, those from phase III produced the greatest quantity of plant remains. Of the phase II samples only one produced significant quantities of cereal remains though another produced a number of weed seeds. None of the three samples from the enclosure boundary ditch, which dated from phases I–III, produced any plant remains. It is difficult, therefore, to consider changes through time. Moreover, as the function of Enclosure 2 seems to have changed through time, any differences in the plant remains recovered are as likely to result from changing use of the enclosure as from changes in the crops cultivated. So, for example, barley grains and spelt chaff predominate in the phase III samples and this may reflect the use of part of the enclosure for animal pens at this time, with the barley and chaff being used for fodder (and some becoming accidentally charred). A predominance of barley in samples from features in enclosures has previously been used as possible evidence for a concentration on animal husbandry at Owslebury in Hampshire.⁹³

There is ample evidence both for the use of fully cleaned cereal products and by-products at Dunston's Clump and for the final processing of cereals at the site. This in itself does not necessarily imply local cultivation as spelt is often stored and transported in spikelet form, final processing being accomplished at the consumer site.⁹⁴ The only conclusive evidence for local cultivation would be the discovery of straw waste which results from the early stages of crop processing.⁹⁵ It should be noted, however, that straw waste is rarely found on archaeological sites. The lack of such waste at Dunston's Clump, therefore, is not necessarily

significant. Seeds of *Rumex acetosella* agg. were found in a few samples including those from contexts 1122 and 1066 which have been interpreted as a crop cleaning residue and cleaned crop respectively. This group of species prefers acid soils and so, if present in the samples as a crop weed, could indicate local cultivation on the Sherwood Sandstones. However, its presence in such low numbers (no more than one seed per sample) is difficult to interpret, as minor contamination of this kind could have occurred after the crop was harvested. On the basis of the plant remains alone then, it is difficult to conclude whether Dunston's Clump was producing its own cereals or importing them from market.

TABLE 4

Context No.	704	1066	1110
Triticum spelta grains	—	2	4
T. dicoccum/spelta grains	—	3	—
T. cf. aestivum grains	—	—	3
Triticum sp. grains	—	—	8
cf. Secale cereale grains	—	—	1
Hordeum sp. (hulled) grains	5	—	—
Hordeum sp. grains	7	—	—
cf. Hordeum sp. grains	1	—	1
Avena sp. grains	—	—	1
cf. Avena sp. grains	—	—	1
indet. cereal grains	—	—	1

Table 4. Plant remains from Dunston's Clump: residue samples.

THE ANIMAL BONES

by MARY HARMAN

As in the Trent Valley sands and gravels, bone from the Sherwood Sandstones was very poorly preserved. Little bone survived on the site apart from rare calcined fragments, and a few teeth, though the condition of the teeth varied considerably, some being quite sound, while others were reduced to sheets and splinters of enamel.

Cattle teeth occurred in features 109, 612 (both phase III), 750 (enclosure ditch), 856, 894 and 1076 (phase I or II), the last containing several, two at least from both sides of the upper jaw, possibly representing part of a skull. Fragments of bone from large animals, such as cattle, or horse, were found in features 401 (unphased), 610 (phase III) and 858 (phase I or II). Bones from sheep were found in three features: 672 (phase III) contained one upper molar tooth; 1326 (not phased) three calcined bones; and 401 a small group of both sheep and pig bones, all calcined. A complete set of teeth from the left mandible of a horse were found in 429 (not phased). A list of bones identified can be found in the archive.

This group contained nothing surprising. The quantity of bone is insufficient for any interpretation.

DISCUSSION

The excavation of Enclosure 2 enabled an assessment to be made of the plough damage to the archaeological features, and of the fieldwalking data. Most of the pottery and burnt cobbles found by fieldwalking was in the south eastern part of the enclosure and the adjacent enclosure to the east. Only three sherds were found by fieldwalking in the area between boundary 614 and enclosure ditch 750 (Fig. 6). This implied that the midden or destruction deposit 1492, relatively rich in pottery and cobbles, was little disturbed by recent ploughing. The ploughsoil was 100–150 mm thicker at the northern edge of the site and was probably the result of accumulation of ploughsoil from the hill crest on the slight terrace occupied by Enclosure 2. This accumulation probably explains why the features were better preserved in the northern part of the enclosure; the post holes of Structure 4, 5 and 6 were dug to the same absolute depth measured against Ordnance Datum as those of Structure 1, but the former had been more heavily truncated by ploughing. The slighter post holes of the east and west annex to Structure 1 (Fig. 7) would probably not have survived at the southern end of the enclosure. The siting of Enclosure 2 with respect to the microtopography of the hillside has ensured the better survival of features at the northern end of the enclosure; the fieldwalking data only represented the relatively eroded areas and gave no clue to the nature of the deposits in the northern part of Enclosure 2.

THE BUILDINGS (STRUCTURES 1, 4, 5 AND 6)

All the buildings identified were rectangular in plan, constructed with earthfast posts, with wattle, daub and probably cobbles used as building materials. The lack of tiles and nails (except those associated with the box fittings in pit 1066), might suggest organic roofs such as thatch, turf or wooden shingles. Reconstructions of the buildings from the ground-plans have not been attempted because there are insufficient buildings, and the information on post positions within the post holes and trenches is incomplete. The change from post in trench foundations in Structure 1 to individual post holes in Structures 4, 5 and 6 may not have been important in the construction; both types could have appeared identical above ground.

The excavations revealed the plans of at least four roofed structures, yet no buildings had been identified on aerial photographs taken in several seasons, of crop and soil marks of the enclosure cluster at Dunston's Clump. Lengths of the palisade slot 612 were identified on soil-mark photographs. The construction trenches of Structure 1 were of similar size and might have been recognised but for the midden or destruction deposit 1492, lying against its eastern end. No rectangular buildings have been identified from aerial photographs within the brickwork plan field systems, though round houses are known e.g. in Enclosure 4 (Figs. 1, 2). The slight trenches and individual post holes of the rectangular structures seemed not to affect crop growth sufficiently to register as coherent crop mark patterns.

Structure 1 was dated only by the pottery from other features in phase II, and at its destruction by the pottery from the phase III palisade slot 612 which was dug through its northern side. The phase II pottery was difficult to date precisely due to the conservatism of the pottery forms and paucity of clearly associated datable objects, but its date range of late 1st century B.C. to mid 1st century A.D., coupled with the pottery from Slot 612 comprising types current from the late 1st to 3rd centuries suggested that the building had gone out of use by the 2nd century A.D.

The dates of Structures 4, 5 and 6 were much less certain. It has been suggested that these structures were set within the spaces created by the phase III partitions. The southern entrance of Structure 5 apparently used an earlier gap through the palisade slot and the apparent alignment of the structure and palisade suggested that the palisade was standing when Structure 5 was built. The dismantling or decay of Structures 4, 5 and 6 could not be dated. The latest pot sherds from the site were from long lived types that have analogues in the late 2nd to the 4th centuries A.D. The position of the structures and the absence of pottery and metalwork which could be dated specifically to the 4th century or later suggested that Structures 4, 5 and 6 predated the 4th century A.D. No later artefacts were found.

The building plans at Dunston's Clump contrasted with the Romano-British rectangular aisled buildings known from excavation (e.g. Mansfield Woodhouse, Nottinghamshire⁹⁶ and Whitwell, Leicestershire⁹⁷), and more rarely aerial photography (e.g. Cromwell, Nottinghamshire⁹⁸). The close spacing and relatively small size of the posts in the long walls of Structures 1 and 5 suggested that they represented the external walls, not aisle posts. The weight of the roof in the Dunston's Clump structures was borne by the walls, not internal posts. Timber rectangular structures of this wall post type have been increasingly reported from late Iron Age and later contexts in the south-east of England (e.g. Ivy Chimneys, Essex,⁹⁹ Kelvedon, Essex¹⁰⁰). Evidence for such constructions in the East Midlands remains sparse, though traces of possible 1st century A.D. rectilinear structures were reported from Old Winteringham, Lincolnshire¹⁰¹ and *Ad Pontem*, Thorpe, Nottinghamshire,¹⁰² and a possible Romano-British example was recorded in plan only at *Tripontium*, Cave's Inn, Warwickshire.¹⁰³

The closest parallel to Structure 5 at Dunston's Clump is at the Anglo-Saxon site at Catholme, Staffordshire (Structure 62).¹⁰⁴ Indeed, were it not for the strong circumstantial

evidence for a Roman date, the paucity of Roman artefacts and the plan of the structure would have suggested an Anglo-Saxon date. In a survey of Anglo-Saxon structures Philip Dixon¹⁰⁵ has noted that the usual dwellings on the Continent were aisled, whereas wall post houses where the weight of the roof was borne by the walls, was the typical style of early Anglo-Saxon building. He suggested that there might be continuity of a tradition of building style from the Roman into the Saxon period in Britain. The recovery of wall post houses at Dunston's Clump and other recent excavations at Godmanchester, Cambridgeshire,¹⁰⁶ supports Dixon's suggestion. Such timber buildings may have been more common than reports indicate since excavations have, until recently, tended to concentrate on large villa buildings.

ECONOMY

The soils of the Sherwood Sandstone are sandy and freely draining, and today need a heavy input of fertilisers to maintain crop productivity. Agricultural treatises concerning the sandy soils of Nottinghamshire stressed the importance of animal manure, and that good yields of crops could be attained if there were a high level of manuring.¹⁰⁷ Sheep, which are the best animals for keeping on dry grassland, were the most important stock in the recent past.¹⁰⁸ In the late 18th century a ratio of *c.* 1:2.5 crop to pasture land was reported on one estate of the Duke of Newcastle.¹⁰⁹ Then, a crop rotation of up to 5 years could be achieved before the land was left "to recover itself as it could by rest".¹¹⁰ Although recent and Roman technological and subsistence patterns may not have been similar, land use must have been constrained by the same environmental factors, and only animal husbandry would have made repeated crop production possible. Hayes has argued on theoretical grounds that the size of the farm land around the enclosure clusters, given the level of Roman technology, was probably too large for arable farming, and would best be interpreted as part of a predominantly pastoral economy.¹¹¹ The enclosure clusters were set at approximately 1 km intervals within the brickwork plan field systems in the Babworth area. The spacing of recent farmsteads is similar (Fig. 1). If all the clusters were contemporary this might imply a comparable intensity of land use and perhaps of population levels in recent and Roman times.

Animal husbandry

Bone was poorly preserved, but all large farm animals (except dog) were represented. Deductions about animal husbandry cannot be made from this data though other evidence suggests a concern for stock control. The fields surrounding the enclosure clusters would have allowed an intensive use of grassland resources, with ditched droveways to aid stock movement through arable fields (Fig. 1). The fields were initially bounded by ditches and possibly banks which without extra fencing or hedging would not have deterred unwanted animal movement. Excavation has demonstrated that the ditches filled rapidly; they were probably quickly replaced by fences and hedges.

The single sample with charred weed seeds from damp grassland (668) hints that farming activities were not confined to the light sandy soils. The river valleys of the Idle and a tributary of the Ryton appear to have been unenclosed, and therefore not part of the brickwork plan field systems, though these damper soils are less conducive to the production of crop marks. The proximity of the valleys with their access to grazing and fodder resources could have been an important factor in the economy of the field systems.¹¹² The plant remains from the post pipes of Structures 2 and 3 (phase III) would have been suitable for animal fodder. The small proportion of weed seeds, with predominantly barley grain and spelt chaff, suggested the deliberate mixture of a processed crop with other possibly domestic waste for the storage of fodder, or feeding of animals within the enclosure. The partitions within the phase III enclosure may have been used as an aid to stock control. The plants that could be used as bedding (samples 704, 630, 668) might be for animal or human use.

Both animals and humans would have needed a local water supply; numerous small streams dissect the ridge between the Rivers Ryton and Idle, and one now runs c. 200 m to the north of Enclosure 1 at Dunston's Clump. There are now two ponds in the clay subsoil band just to the west of the site, and such devices may have been used in the Romano-British period too. Water storage inside the enclosures might have been provided by the clay lined features found in Enclosure 2 (Fig. 11).

Arable husbandry

The plant remains from Dunston's Clump do not make clear whether the cereals were grown on the farm, or bought from local markets. The samples comprising predominantly weed seeds (1122), and the presence of probably complete spikelets (1110), suggested that both threshing and cleaning of crops were carried out on, or near, the site. The only conclusive proof of local cultivation, straw waste, is rarely found on archaeological sites and was absent here.

Domestic facilities

The samples from phases II and III of predominantly grain, with little chaff or weed seeds (Table 3) indicate food for human consumption, as do the quern stones. The pottery and metal brooches also attest domestic occupation. There are no specifically agricultural artefacts, though the grinding stone, iron fittings and charred box fragments might be either agricultural or domestic. Further information on the building types within the complete enclosure cluster is needed for their functions to be certain, but there were at least two periods when buildings could have been used for dwellings, Structure 1 in phase II (Fig. 6), and Structure 5 in phase III (Fig. 11).

The artefacts found by excavation were few and of common types. However, only part of the farmstead was excavated; other areas might have produced more artefacts, although some materials would not survive well. The freely draining, acid sands are not conducive to the preservation of bone, metalwork and organic materials; they are all likely to be under-represented in the excavation record. The total absence of coins may be due to survival conditions, but a 2nd century hoard was found 1 km to the south west in 1802.¹¹³ The charred wooden objects are only a small part of the range of organic objects that must have been in common use. The changes in artefact use through time, other than pottery, cannot be assessed due to the lack of rubbish deposits in phases I and II. Most of the features contained pottery sherds, but rarely in large quantities, although the continuous typological sequence demonstrated a steady, if small, pottery supply.

Storage facilities

Farmsteads commonly have subsidiary accommodation for goods and animals; a number of the above and below ground structures at Dunston's Clump might have fulfilled this function. Pits could have been used throughout the occupation. The function of the deep, rectangular shaped pits apparently restricted to phases I and II is unknown, though their steep unweathered sides suggested that they were lined and covered receptacles. (The possibility, suggested by their size and rapid filling, that they were graves, was considered unlikely). The clay lined pits, particularly those outside Structures 6, 10 and 11, might have been associated with their use and have had a particular function. Pits eventually backfilled with rubbish might have originally been intended for other purposes.

If the plant remains from the post pipes of Structures 2 and 3 indicated the structures' former function then they might be interpreted as storage facilities or perhaps feeding structures for stock. The storage interpretation, and the plan of four large post holes set in a rectangle, are reminiscent of four post structures well known from the Iron Age and some Romano-British sites,¹¹⁴ though such elongated rectangles are rare. The apparent likeness

cannot be confirmed since Structures 2 and 3 were surrounded by other features, some of which might be unrecognised parts of the same structure (cf. Figs. 3 and 11).

The other post structures that might be for storage or animal shelter are interpreted as small rectangular huts or pens (Structures 4 and 6), or compounds or lean-to buildings against the eastern palisade (Structures 7, 8 and 9). The residues in the post holes of Structure 11 at least, suggested a structure which used wattle panels covered with daub. There are no artefacts, or features of the plans of these structures, which could indicate specific functions.

THE FIELD SYSTEMS

The field systems mapped by Derrick Riley appear to have been confined to the Sherwood Sandstone belt of North Nottinghamshire and South Yorkshire, but as crop marks are rare on the Mercian Mudstone or the Magnesian Limestone to the east and west they may have been more extensive.¹¹⁵ Similarly large areas of crop marks are known from the nearby Trent Valley gravels, but they contrast sharply with the Sherwood Sandstone field systems. The crop marks on the river gravels present a palimpsest of activities from the Neolithic to the Medieval periods, creating a complex picture of subsoil features.¹¹⁶ There is little to suggest such a long history on the Sherwood Sandstones where the paucity of other crop marks, and the regularity of the field plans suggest that the brickwork plan field systems were laid out in a comparatively short time. However, the excavations of the field boundaries outside Enclosure 1 demonstrated that the apparently coherent, single phase field plan, was actually a sequence of field boundaries which could not all have existed as contemporary ditches. Further, the later boundaries were slighter than the earlier ones and consequently did not register as crop marks. It was suggested that these later boundaries were probably used in conjunction with hedges or fences. A sequence of boundary types from ditches to fences and hedges was also demonstrated for Enclosure 2. It seems likely that hedges and fences would have required less maintenance than the regular cleaning of ditches in these sandy soils. Thus some development of the brickwork plan field systems may not be recordable by aerial photography, and the crop mark pattern of a field system which is essentially of one period may be an illusion. Whereas it seems clear that a few earlier settlements were incorporated into the field systems,¹¹⁷ the absence of many demonstrably earlier crop mark features could merely indicate the lack of substantial ditches in those settlements.

The scale of the field systems strongly suggests that they were set out in a cleared landscape. Environmental data from nearby valley peats, and sites located in river valley bottoms, might give information on the preclearance vegetation and dates of activity. Pollen analysis of samples from Thorne and Hatfield Moors, which lie to the north east of the Sherwood Sandstones, suggests that forest clearance and the first substantial agricultural activity took place in the Iron Age.¹¹⁸ The apparent rarity of Iron Age occupation in the area of the brickwork plan field systems may merely reflect limited excavation and the fragility of Iron Age pottery in the ploughsoil. The recovery of the single Iron Age type pottery sherd from Enclosure 3 (Fig. 19, no. 48) hints at such local activity.

Although it is clear that at least some of the enclosures within these field systems were in use in the Romano-British period from pottery collected by fieldwalking and excavation,¹¹⁹ the time of their initial setting out is still uncertain. The suggested date for the initial occupation of Enclosure 2 was the late 1st century B.C. to the mid 1st century A.D. This was based upon a small number of vessels from a wide range of phase I and II features. The field system would appear to have been established some time in, or before, the late 1st century A.D., though this date could not even be demonstrated for those field boundaries adjoining Enclosure 1 to the north. Datable deposits from the primary occupations of a number of enclosures are urgently needed.

It is not known how long the field systems continued in use. The latest pottery group from Enclosure 2 at Dunston's Clump comprised mostly long lived types dated to the late 2nd to 4th centuries A.D. Occupation may have continued in Enclosure 1, though fieldwalking did

not produce later types. The latest pottery from Dunston's Clump compared well with that from the trial excavations by J. May and J. Samuels and fieldwalking over some enclosures in this part of the brickwork plan field systems.¹²⁰ The sample is small, but there is a lack of pottery of certain 4th century date from this part of the brickwork plan field systems; it is present in enclosures within other field systems, e.g. Sandtoft, South Humberside,¹²¹ and South Leverton, Nottinghamshire.

The distinctive plan and wide area covered by the field systems suggests large scale investment. If these field systems were laid out in the 1st century A.D. such an enterprise might be associated with the Roman administration, but until there is evidence for the initial setting out and occupation of the brickwork plan field system in a number of locations this should not be assumed. The large scale planning of field systems by prehistoric communities e.g. the 2nd millennium B.C. Dartmoor Reaves,¹²² and the blocks of *cohesive* field systems on the Berkshire Downs,¹²³ clearly demonstrate that such an enterprise would have been within their capabilities. Whatever the origins of the brickwork plan field systems, they do not appear to have been part of the villa economy in the Romano-British period. The villas in this area are small and comparatively few, and no Corintian villas are yet dated earlier than the second century A.D.¹²⁴ The nearest known villas (Oldcoates and Wadworth) lie on the edge of the Magnesium Limestone, just to the west of the brickwork plan field systems.¹²⁵ Investigation of these sites was unsystematic and limited to parts of the major villa buildings; their occupation span is unknown although 3rd and 4th century pottery is reported from both.¹²⁶ Where villas are absent in other parts of the country, the presence of large estates, particularly imperial estates, has been suggested¹²⁷ e.g. the Fens where limited epigraphic evidence, coupled with road and canal construction, might imply government direction.¹²⁸ Excavation of one of the Fenland villages at Grandford, Cambridgeshire, has shown that the buildings and material culture demonstrated considerable Romanisation and prosperity alongside their unplanned, irregular fields.¹²⁹ This contrasts with the brickwork plan field systems where large scale planning is evident, the enclosure clusters indicate dispersed rather than nucleated settlement, the material culture that survives is poor, and the buildings were small, but perhaps influenced by Roman vernacular architecture if Dunston's Clump is typical. The farmstead at Dunston's Clump could be considered as possessing a more impoverished material culture than that of other Romano-British rural settlements e.g. Rampton, Nottinghamshire,¹³⁰ Edlington Wood, South Yorkshire.¹³¹ This local difference in apparent wealth might have implications for the way that these field systems were organised. If these field systems were estates then there is a surprising lack of communication routes, particularly in the best preserved area of the brickwork plan fields west of Retford.¹³² One might have expected access to roads for the movement of goods out of the area,¹³³ but just to the east of the field systems was a major military road, Tillbridge Lane from Lincoln to York¹³⁴ which passed through Bawtry and Doncaster and would have enabled regional movement (Fig. 1).

Only part of one enclosure cluster within the brickwork plan field systems has been sampled. A future excavation programme should be aimed at resolving some of the problems of the field systems, and clarifying their impact on the area. Investigation of different types of enclosure clusters firmly associated with the field systems, and sites which appear to predate the field system but were incorporated into it,¹³⁵ must be a high priority. This could indicate not only when the field systems were first laid out but also how long they were in use. Evidence of crops and animals could demonstrate changes in the economy. The development of building techniques could be traced, and might show whether the rectangular buildings were an indigenous tradition, or introduced into the area. Future work should also test whether the enclosure clusters were of equal status in terms of function and material culture, or if a hierarchical structure, with places for the collection of goods, was present. Any future understanding of the reason for the field systems and their organisation will lie in the accumulation of evidence in this archaeologically little known area.

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