

Excavation in the Medieval Village of Norton 1974-1976

Part one

by J. P. Greene and P. R. Hough, with
contributions by P. J. Davey and B. Noake.

INTRODUCTION

The shrunken village of Norton lies within the designated area of Runcorn New Town. In 1974 an estate map of the manor of Norton (J.E. 1757) came to light in Warrington Public Library. The map showed that Norton had once had the form of a typical medieval street-village. A large area to the south of Lodge Farm was free from modern buildings, but as this area was due to be developed for housing, an excavation was organised for that summer. It was directed by J. P. Greene, Archaeology and Museum Officer with Runcorn Development Corporation, with P. R. Hough, an undergraduate of the Dept. of Archaeology, University College Cardiff, as assistant director. As the imminence of house building receded, it was possible to organise further seasons of work in 1975 and 1976, which were jointly directed by Patrick Greene and Peter Hough. A total of about 1900 sq. m. was examined, the only large scale village excavation to have been undertaken to date in Cheshire. All three seasons were sponsored by the Development Corporation, assisted financially by the Department of the Environment (Ancient Monuments Directorate) and Cheshire County Council.

In this, the first part of the excavation report, the results of the excavation are described within the historical setting of the village. In part two, which will be published in volume 61 of the journal, Beryl Noake's report on the pottery will form the major part. The decision to publish in two parts has been taken as a result of a programme of scientific research on the pottery fabrics which is currently being undertaken. This research will add considerable information about the pottery, but is unlikely to affect Mrs. Noake's conclusions on dating, which are incorporated in part one.

GEOLOGY

The village of Norton lies in an area underlain by a series of Triassic sandstones. It is shown on the One Inch Geological Survey Map as a complex area overlain by numerous Drift deposits and intersected by several fault lines. A north-south fault forms the valley bottom to the east of Norton, and to the west another forms the low ridge.

The whole of the settlement of Norton village and much of the field system directly associated with it are in an area covered by Keuper Waterstones, a sandy deposit which contains many hard waterworn pebbles. It is suspected that many of the cobbles within the excavation and also to be seen in the yards of Lodge Farm, derive from this deposit which extends north and south well beyond the village. To the east it gives way to Keuper Marl which also underlies the Waterstones; to the west is a ridge of Keuper sandstone. Beyond this ridge Keuper Marl again appears. Within a mile of Norton village, Drift deposits of Boulder Clay, Glacial Sand and Gravel and Blown Sand (the Shirdley Hill Sand), also occur.

Within the excavated area, the geology appeared more complex still. The Waterstones deposit was recognised, although it was patchy and did not form a complete covering. Substantial areas of Boulder Clay were recognised, and scattered over much of the area were a number of irregular hollows and linear features filled with sand and clay. Their complexity in plan and section appeared to preclude a human explanation of their origin and they did not resemble a root system in any way.

It has been suggested by N. McN. Jackson (in Brown, Leaning & Little, 1967), that hollows, closely resembling in description those at Norton, found during excavation at Halton Brow two miles away, were in fact 'fossil' frostwedges from the periglacial period following the final withdrawal of the Irish Sea ice, responsible for the deposition of the Boulder Clay.

The Keuper Marl shown well to the east of the village on the One Inch Survey Map was also very much in evidence within the excavation. In several places particularly on the east side it lay immediately below the plough soil and in the bottom of all features which penetrated below approximately 0.5 m. A clear division between marl and boulder clay was observed in the

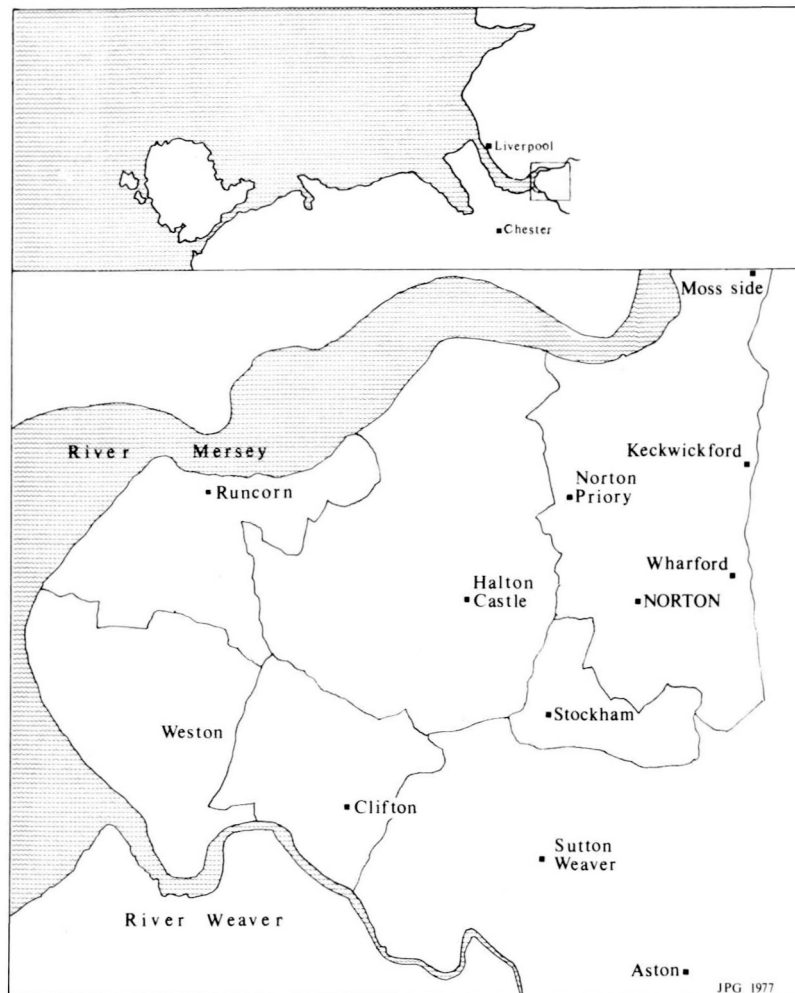


Fig. 24 Norton Village, Neighbouring townships and settlements

southern part of the excavation where the marl sloped steeply to the west under the clay and appeared to flatten out at a depth of about 1 m. The appearance of the surface of the excavated ground was further complicated by the occurrence of a shattered and partly decayed mudstone in various parts of the site.

In all, the complicated geology of the site of Norton village presented formidable problems in the identification and excavation of archaeological features.

HISTORICAL BACKGROUND

The earliest record of Norton is an entry in the Domesday Book, in which it is listed as one of the manors of William fitz Nigel, the second Baron of Halton and Constable of Chester. Ansfred is named as under tenant. Previously it consisted of two manors, held by Uhtred and Tokig, who were free men. Its value had diminished from 16 shillings in the time of King Edward to nine shillings and four pence in 1086. Within the manor there was stated to be land enough for six ploughs. In the demense two serfs, three villeins and one plough are listed together with a fisherman. Three acres of meadow, four acres of wood and two heys are specified.

The diminished value, the small amount of the available ploughland actually under cultivation, and the final statement in the Domesday Book entry 'He found it waste' all imply that Norton was one of many Cheshire settlements that suffered at the time of the conquest. The impact of the conqueror's army on Cheshire was severe: 200 manors were listed as waste in 1070, a proportion higher than any other district except Yorkshire (Tait 1916, 7-8). It is difficult to know what kind of settlement there was in the pre-conquest period, particularly as two manors are mentioned. The elongated shape of the township suggests that it may have originally consisted of a northern and a southern manor. Alternatively, Domesday may be referring to what later became known as the manor of Norton cum Stockham. The latter is not mentioned in Domesday, but it was a distinct settlement and township from at least 1205 as proved by a charter (transcribed Barraclough 1957, 24-6). The shape of the village as illustrated by the J. E. (1757) map and as confirmed by the

holders who were instrumental in creating a planned village at Norton. The canons adopted the name of the township into which they moved as the name of their religious house; it is Norton Priory (later Abbey) which thereafter became the focus of the area, while the history of the village during the medieval period is shrouded in obscurity.

The taxation returns which are usually so useful for tracing population changes in English medieval villages are unfortunately largely absent for Cheshire. The status of the area as an Earldom with considerable autonomy, and later as a County Palatine, excluded Cheshire from most attempts at taxation on a wide scale. Thus although attempts to impose the subsidies of 1327 and 1332 may have been made, Cheshire appears to have successfully avoided them. The Poll Tax of 1377 and subsequent years was not levied, except on the clerical population (Booth, 1976). In the later medieval period, the Great Mize was the system of taxation employed, with assessments on a township basis that are of little help. It is therefore not until the mid sixteenth century that information on settlement in Norton township becomes available, as no earlier estate records have survived.

The canons retained the township intact throughout their four centuries of ownership. In 1536 came the Dissolution, and all the Abbey lands including Norton passed into Royal hands. When in 1545 the site of the Abbey and much of its lands were sold to Sir Richard Brooke, a list of the tenants in Norton was made, forming part of the grant of Henry VIII to Brooke. Apart from the man who had been the Abbot's bailiff and who appears to have had a house at the Abbey, 29 tenants were named (Beamont, 1873, 201-2), all of whom may be assumed to have had separate dwellings. In addition, the letters-patent granted the purchaser all male and female neifs and villeins with their issue, though whether such existed on the Norton estate is not clear. It is clear however, that the township was a valuable and productive one. A list of the lands owned by the abbey was made at the Dissolution (Beamont, 1873, 184-5) replacing the Valor Ecclesiasticus survey, which was probably falsified by its authors. The later survey states the worth of the Norton lands outside the demesne to be £22 3s. 4½d. a year, whilst those of the demesne, listed in a separate Augmentation Office document (Beamont, 1873, 204-5) consisted of meadow yielding £12 16s. 0d., pasture yielding £12 3s. 8d., ley worth £1 6s. 8d., and arable worth £7 9s. 8d.—a total of £33 16s. 0d., to which a further £9 0s. 0d. was added as income from mills, fishing and turf cutting. An additional £3 12s. 0d. was derived from meadow and pasture that had been farmed out from the demesne. The total for the township was the massive sum of £68 11s. 4½d.

The difficulty in arriving at a complete picture of settlement within the township, and still more so in the village itself is that whilst tenants may be listed in documents, any sub-tenants will not be, and others such as servants and agricultural labourers could be living on the estate without being rent-paying tenants.

In 1632 an inquisition Post Mortem of Sir Richard Brooke listed fourteen tenants in Norton in addition to Norton Hall with three dwellings probably nearby (Stewart-Brown 1934, 82-3), making a probable total of eighteen substantial land holdings. If this is a complete list of tenants in Norton at this date, then it represents a considerable reduction in the number of tenures during ninety years. It seems quite possible that such a process occurred, with the Brookes promoting a policy of aggregating individual holdings in the interest of efficiency.

There were certainly more than eighteen *households* on the Brooke's Norton estate in the seventeenth century. The Hearth Tax returns for 1664 list 26 charged and 18 exempt households. In 1673 36 buildings were charged, one of which, Sir Richard Brooke's mansion, had 24 hearths while two had five, two had three, eight had two, and the remainder had one hearth. In addition five dwellings with one hearth were discharged by agent's certificate (P.R.O. E, 179/86/155). The totals for two years are thus 44 and 41 habitations.

In the eighteenth century map evidence becomes available for the first time. On the J.E. 1757 map 33 probable dwellings were marked, of which 12 were in Norton village itself, and 21 in the rest of the township. There is thus a reduction of 11 compared to the previous century. Of the total, 13 were substantial tenants. Apart from isolated farms and small holdings, there are five settlements in the township:-

1. Norton village itself as fig. 25 shows, had 12 houses and at least nine vacant house plots at this date.
2. Norton Priory, the Brookes' mansion, still had many of the buildings of the monastic outer court surviving when the map was drawn, but I have counted it as just one dwelling (however many people may have lived there) because it was probably regarded as such by the Hearth Tax assessors.
3. A small settlement of three dwellings existed at SJ 546 821. This site is now only occupied

by Wharford Farm, but in 1757 the buildings were set in small irregularly shaped fields suggesting a settlement of some antiquity, and possibly incorporating two or three additional abandoned plots. Burdett (1777) marked 'Warford Green' on his map here.

4. Alongside the road to Moore and Keckwick and Daresbury, where Keckwickford Farm now stands (SJ 564 837) was a group of three dwellings with four or more unoccupied crofts in addition. Two fields names are marked on the J.E. 1757 map here, Croft and Ridgalong Croft, confirming that abandoned crofts were present.
5. The track which today leads to Upper Moss Side Farm, Moore, (SJ 564 852) was lined with six buildings, with perhaps another four unoccupied plots in 1757. Burdett (1777) marked this small settlement with the name Moss Side, and six dwellings are referred to here in a lease of 1780 (Cheshire Record Office, DBN A/7/1).



Fig. 26 Field pattern extracted from the 1844 Tithe Map

During the following fifty years substantial changes occurred to the township, as Dunn's maps of 1811 show. In addition to Brooke's own land, 13 substantial farms were mapped and listed. The remainder consisted of 14 'sundry small holdings'. There were thus five less households than in 1757. The changes were particularly marked in Norton Village, where all the long fields (agglomerated strips) which in 1757 were in the tenure of many different people were united into large fields. The name 'Butts' on the field to the west of the village is the only reminder of the earlier situation. Only six households remained in the village.

Another difference to the landscape shown by Dunn is the Bridgewater Canal. Passing close to the village on its eastern side, the canal was dug during the 1770's but only fully opened in 1776 following years of legal obstruction by the Brookes. It can probably be seen as the catalyst which precipitated the revolution in the landscape which occurred between 1757 and the early nineteenth century. Further information on the settlement pattern is provided by the 1844 Tithe Map (White 1844). At this date there were 11 tenants with farms, who possessed in addition eight cottages. Thirteen minor tenants had cottages, and small holdings. Thus the total number of dwellings in the township, with the addition of Sir Richard Brooke's household had risen during three decades from 28 to 33. Houses occupied by employees of the Bridgewater Canal are excluded from the total as they are not relevant to this study.

Thus during the three centuries that followed the Dissolution, there appears to have been a slow but steady reduction in the number of individual tenures on the Brookes' estate. From 29 in 1545 the number fell to 18 in 1632, 13 in 1757, and 1811, and to 11 in 1844. The change in the number of households was also marked from 44 in 1664 to 33 in 1757, 28 in 1811 but increasing again to 33 in 1844. The J.E. (1757) map is an important record of Norton Village in the midst of this transition from many small landholdings to fewer larger blocks, especially as estate maps of the eighteenth century are comparatively rare in Cheshire. Each tenant has an individual letter which identifies his holdings (fig. 25). The estate book which must have accompanied the map has not survived.

It is also a record of great value due to its quality. It has been drawn with considerable care and skill, and can be regarded as a reliable source of information. One of the most important subjects that it illuminates is the probable pattern of land use prior to 1757. An immediately striking feature is Norton Village itself. The mid eighteenth century structure of the village would appear to be that of a classic medieval street village in a devolved form. Along both street frontages there seems to have been a regular arrangement of dwellings and tofts. By 1757 centuries of aggregation and division had blurred the boundaries between them but the pattern was still clear. Originally there must have been about ten tofts either side of the road. To their rear, separating them from the fields, were back lanes. In 1757 one was still in partial existence on the east side of the village, with other lanes alongside toft boundaries linking it with the axial street. On the west the presence of a back lane was confirmed by excavation.

Behind the tofts the long narrow fields shown on the 1757 map must represent the enclosing of open fields. It is difficult to know when the aggregation of strips into enclosed units was occurring, but it may be linked with the decrease in the number of households in the township in the seventeenth century as shown by documentation and the archaeological evidence that crofts were being abandoned in the sixteenth century (Building C). As mentioned previously, the final stage in the process of tenancies falling into fewer and fewer hands occurred in the latter half of the eighteenth century. Here again, the abandonment of house plots is testified by evidence from the excavation (Buildings A, B and D) and confirmed by maps.

The open fields to the west and east of the village can probably be seen as the earliest areas to be brought into cultivation. To the north other blocks of narrow fields served by lanes must represent further areas of open fields. The boundaries of blocks of long fields, and their different orientations, suggest a series of furlongs resulting from the assarting of what was probably oak woodland in the early medieval period. A bridge at this point on the Bridgewater Canal still known as the Norton Townfield Bridge. To the south of the village there may have been more of the open field system, but there is no direct evidence.

Geomorphological factors appear to have limited the area that could be utilised for arable farming. To the east the boundary of the open fields coincides with the bottom of the slope on which Norton Village was situated. Beyond the land was less well drained and would have provided excellent meadow. This area stands out clearly on Fig. 25 with its larger fields and multitude of water filled marl pits. The Bridgewater Canal, following the contour around the wide valley of Keckwich Brook, emphasises the distinction (Fig. 26). To the west the boundary was equally sharp, but caused here by the elongated outcrop of sandstone which forms Windmill Hill. The hill had a number of important functions in the medieval period. Field survey has revealed the site of the Windmill (which is not marked on the 1757 map and so can probably be assumed to have become disused by

that date). The mill was in the ownership of Norton Priory, as was the western half of the hill. The boundary between demesne and titheable land is carefully marked on one of Dunn's 1811 maps (page 18) running along the ridge of the hill. The eastern part of the hill was probably exploited in common by the villagers; numerous small quarry pits of apparently medieval date indicate one of their activities.

THE EXCAVATION

Excavation at Norton village took place in the field to the south of Lodge Farm, adjacent to the main road through the village (SJ 555 819). This field, much of which has been thoroughly ploughed within the lifetime of the present farmer, Mr. West, was once an orchard although all that remained of this in 1974 were two rows of ailing pear trees along the western edge. The three seasons of excavation progressed from north to south across the field, with two extensions west between the pear trees in 1976. 78 m. of street frontage was excavated, and a total area of approximately 1900 sq. m. (fig. 27).

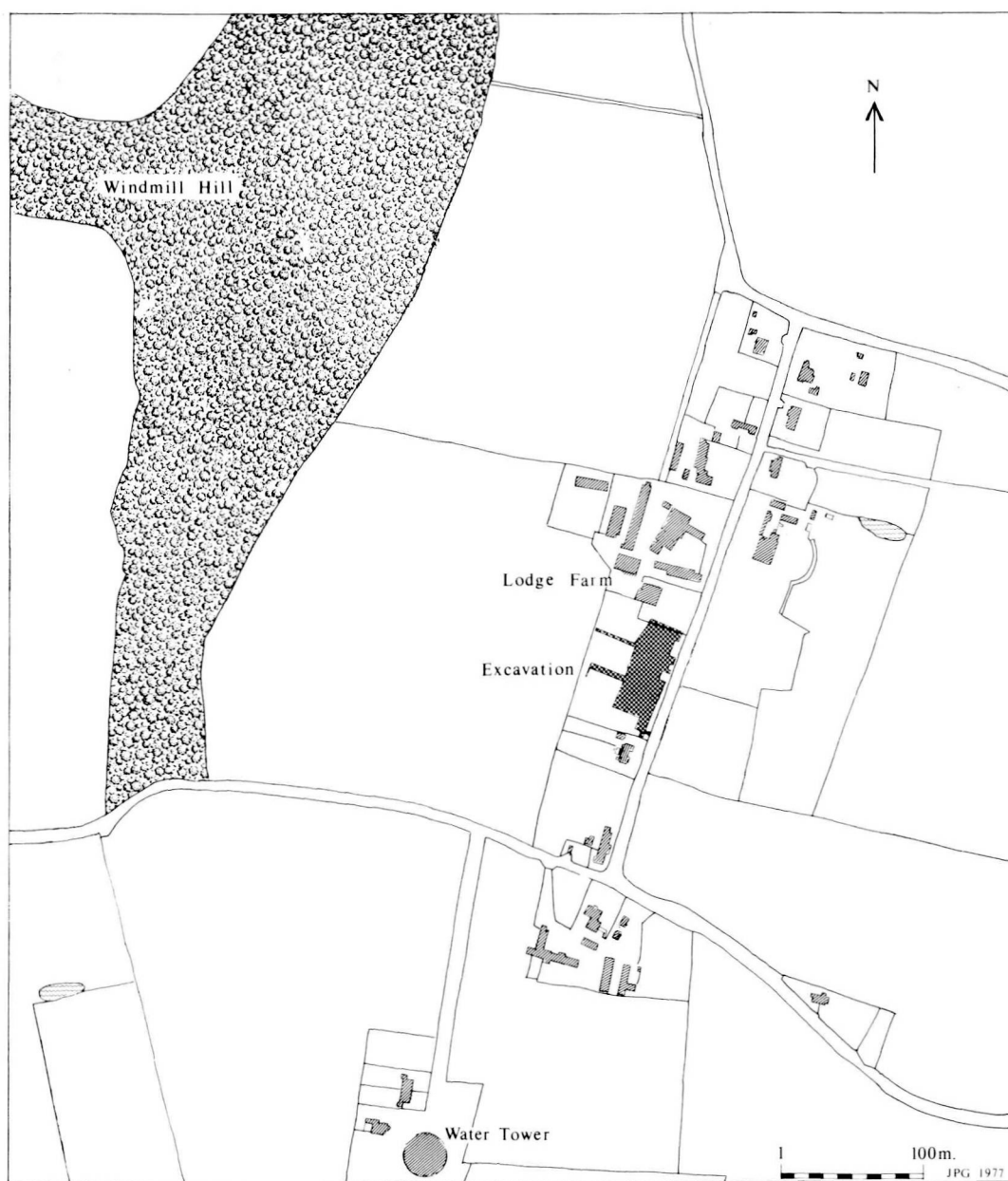


Fig. 27 Norton Village in 1974, showing area excavated 1974-1976



Plate 12 1974 Excavation

Before describing the excavation, a few comments must be made about the methods used and the problems encountered. Work began with two trial trenches aimed to locate the remains of two houses shown on the Estate map (J.E. 1757) (fig. 25), and to assess the archaeological potential of the site. Excavation then continued with open areas, as large as time and funds permitted each year. Development threatened the site from year to year and as a result, the excavators had to treat each season as the last.

Each area opened was first stripped of plough soil by machine. This plough soil rested on natural clay, sand or marl almost everywhere. As a consequence, the site had almost no vertical stratigraphy by which to relate features which did not intersect. Thus in many cases the extrapolation of structures and sequences of events from complex and incomplete patterns of features was often a difficult process aided only rarely by the evidence of dateable finds and documentary and cartographical evidence. The considerable difficulties presented by the subsoil (similarly experienced in the excavations at Halton Brow, one mile away (Jackson, in Brown, Leaning & Little, 1975, 88-9)), must also be stressed in any interpretation of the site. While many features could be identified satisfactorily as post-holes, pits and gullies, others did not fall neatly into such categories; these are indicated on the general site plan (fig. 28), as 'Possible features'. Ploughing in recent years had resulted in the truncation of many features and must account for the tenuous structural evidence for several of the buildings. The surface of the subsoil was also pitted by 'natural' (probably periglacial), features and the Boulder Clay itself was very mixed. The pattern of features presented by the removal of the top-soil was further complicated by the planting, over the last hundred years, of several generations of pear trees. In at least three areas, land drains had also removed crucial evidence. The excavation was hindered still further by the clay content of the soil, which resulted in baking during hot weather and flooding during wet periods.

While emphasising the difficulties presented by the physical nature of the site, difficulties which no doubt explain some of the many problems of interpretation, it must be said that the site clearly had a long and complex history. The main building material was timber, which leaves tenuous

NORTON VILLAGE (LODGE FARM)

Site Plan



Fig. 28 Norton Village (Lodge Farm) Site Plan

remains at best and requires frequent rebuilding and repair, resulting in a complexity of features which inhibits any definitive interpretation.

SUMMARY

Two building areas were defined primarily by their surrounding drainage ditches, a third by part of a shallow wall trench, and a fourth by part of the low stone footing of one of its side walls. These will be referred to as building areas A, B, C, and D (fig. 28). Several other structures were identified by alignments or groups of post-holes, pits and gullies, but in no case could all the structural elements be identified. Other evidence for activity on the site was in the form of cobbled trackways, hollow ways, boundary ditches, fence-posts, land drains and a well.

It is proposed to describe first the evidence for the main road running through the village, and then to consider the four main building areas which fronted onto this road, for these seem directly or indirectly to have formed the focus for much of the site's history. Then the evidence for associated structures, trackways, ditches etc., will be described and finally the apparently unrelated features, the prehistoric pits, and the nineteenth century land drains.

THE MAIN ROAD HOLLOW WAY

The present road through the village is tarmaced, bounded on either side for most of its length by coursed sandstone walling to a height of approximately 0.5 m. Along the eastern edge of the excavated field, the top of this wall is on a level with the present ground so that the modern road is in fact lower than the surrounding ground. The excavation showed that the present road is a rationalization of an earlier, much deeper hollow track through the village. The western edge of this hollow way was extremely irregular, running well into the excavation at several points (fig. 28), noticeably in front of building areas A, B, and C. No trace of the earlier edge was found in front of area D where a narrow trench was excavated right up to the present road edge in an attempt to locate it.

In front of building area A, the natural subsoil sloped gently towards the hollow way which then cut a steep, but shallow step into it (fig. 29). From the bottom of this step, the hollow way rose slightly to leave a shallow gully, then sloped away more steeply to the centre of the road. The bottom of the hollow way was rutted and scattered with stones. At some later stage, the sloping surface in front of the building was built up with a deposit of clay mixed with sandstones and waterworn pebbles (Trench 1 layer 28) and part of the gully filled in. This deposit formed a steep angle within the rest of the filling of the hollow way. This may be explained in terms of downcutting through continual use of the road way, in which case the clay deposit would originally have extended further into the hollow. Erosion would have been quite rapid since the road through the village follows the gradual downward slope of the land to the north. On the other hand, the steep edge of this deposit may have been the result of a retaining fence. One post-hole in front of building area A, and four in front of area B at the base of a similar, but not necessarily contemporary, deposit of banked-up clay, may well have formed part of a plank and post revetting wall in front of each building; certainly in front of area B, they did form at least a fence protecting the building area from the road way. Other post-holes set into the top of these deposits of clay in front of areas A and B, may have formed a second or later fence line. In front of area B, the clay embankment had large sandstone cobbles set into its surface (Trench 6 layers 5 and 10) (fig. 29), possibly associated with an entrance from area B onto the main street.

In each case, following a period of use subsequent to the embankment of the sides of the hollow way, the whole feature within the excavated area was filled in with clay and earth (Trench 1 layer 21, Trench 6 layer 4) (fig. 29 a and b). This infilling probably represented the first stages in the rationalization of the road, and, judging from a comparison with the pottery from this and the demolition deposits associated with the latest buildings, this was contemporary in both cases with the end of occupation in the late eighteenth century.

In front of building area C, cobbling was also used, although here the cobbles were smaller and laid compactly. They sloped away steeply into the hollow way and were laid on the natural subsoil. The hollow formed by the road here was also filled in, but there are reasons, discussed below, to believe that occupation of building area C ceased at an earlier date.

In front of building areas B and C, the hollow way was cobbled during the sixteenth century, since sixteenth century pottery was incorporated in the earliest surviving levels of cobbling. In the late seventeenth and early eighteenth century, downcutting of the hollow way had already left these earlier cobbles high above the level of use. Probably by then the edge of the road had already

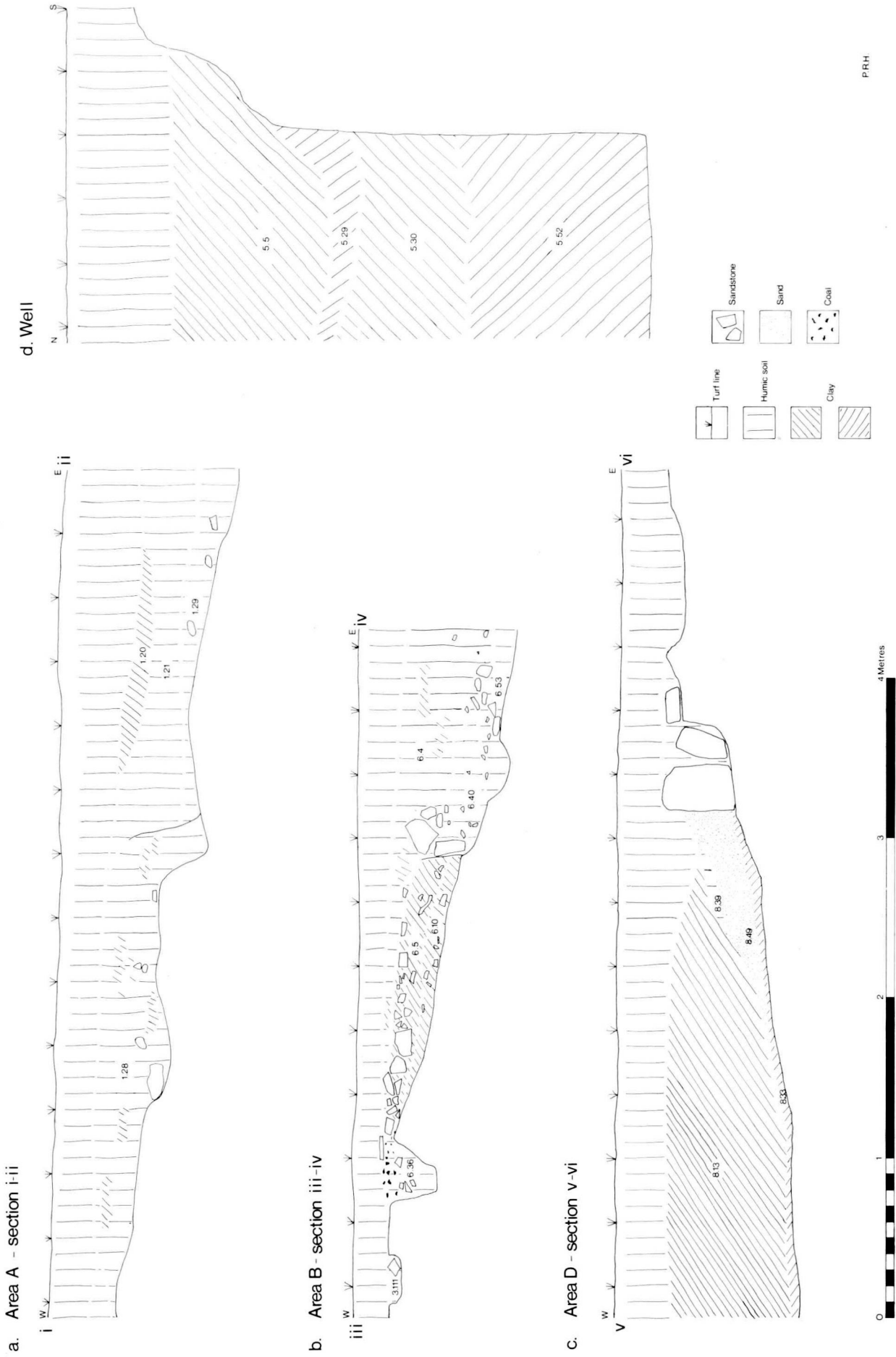


Fig. 29 Sections

retreated away from area C although the hollow had not been completely filled in. The final filling of the hollow took place at the end of the eighteenth century.

BUILDING AREA A

A complex of post-holes and pits were found in this area. At least two phases of structural features were recognised. Neither phase necessarily formed a single building, but since this was the only stratigraphical division which could be made, it is convenient to consider them as earlier and later phases.

Earlier phase

This was represented by at least three post-holes and two large pits. The larger of the two pits was sub-rectangular, 0.70 m deep, and took in a large part of the area built upon in the later phase. The other pit was shallow and appeared only partly in the excavation.

Later phase

Much of the area was covered by a low platform of sandy clay. This sealed the filled-in pits and post-holes of the earlier phase. Having levelled the area, a slot was dug along the south and east sides the southern arm of which was c. 0.75 m across and ran approximately parallel to a cobbled side track. In the bottom were two shallow sub-rectangular post-holes. To the west of the terminal of this slot, was a further hollow containing another possible post-hole. The eastern arm of the slot was about half as wide, contained one shallow recut post-hole, and terminated in another possible post-hole. The slot, and all posts had the same clay fill. To the north and parallel to the southern arm ran a further shallow slot into which were cut three, and possibly four, post-holes. This slot had been recut at least once.

The evidence of clay pipes and pottery from this area supports the archaeological division of the features. Features attributed to the earlier phase all produced pottery which is unlikely to have been in use later than the end of the sixteenth century. The layer which sealed these features also produced fourteenth to sixteenth century wares. The post-holes and slots which were cut into this layer seem to have begun to fill up in the early to mid eighteenth century and were finally levelled by the end of that century.

Whilst it seems likely that the features thus described formed part of the end room of a single timber framed building, with trenches on its wall line, it was by no means certain that all the features in either phase were contemporary or indeed structural. Other possibilities, that the slots were for drainage, as were the gullies around building areas B and C, or that the northern slot was part of a separate building, cannot be ignored. The small area of the building excavated here was a major limitation in interpreting this complex of features.

To the west of building area A, the fill of two features suggested use as cess-pits. The one nearest the building was over a metre deep with steep sides and was filled with alternate layers of organic soil and clay. The second pit to the west was oblong in plan, approximately 0.5 m in depth and had been recut at least once. It also contained greenish organic soil and clay. The function of several slots cut by this pit was not clear, but they may have formed channels running into the pit. They were clearly earlier than the final use of this pit and may therefore have been unrelated. An L-shaped slot in particular, considered in relation to a discontinuity in the edge of the cobbles to the south, may have been of structural significance.

BUILDING AREA B

This area was approximately 8 m by 16 m and was defined by the main road hollow way, a band of cobbles running east-west from the main road and an L-shaped ditch whose western arm was divided into two sections. There are few structural features by which to identify a building here, although it is thought that erosion by ploughing probably removed, and certainly truncated many features.

While a definitive interpretation cannot be made of what was observed, certain possibilities may be proposed:-

- (i) A group of features approximately in the centre suggest a division in the area enclosed by the ditch. Unfortunately, these features were disturbed by a land drain, and their shallowness suggested quite deep erosion here, perhaps corresponding to a break in slope running through

this area. However, the gap in the ditch at the back of the area and the cobbling at the front, already suggested as associated with access to the road, pointed to opposed front and back entrances to at least the building area if not to the building itself.

- (ii) A line of four post-holes running north-south may have related to a short shallow east-west slot at the northern end of the ditched area. If these two alignments were sides of a rectangular structure, the other two sides would have included three other possible features with a definite post-hole at its south-east corner.
- (iii) A longer slot further to the north must also be considered. It was cut by two substantial post-holes, one over 0.5 m deep with a post diameter of over 0.30 m. If these were structural, then it is difficult to see to what other features they related. However, another substantial post to the west, partly destroyed by a land drain, might suggest that all there posts formed a fence, with a fourth in between obliterated by land drains. This, effectively, would have completed the enclosure of area B and provided a substantial barrier against traffic up the side road. The slope of the land would have obviated the need for a drainage ditch on this northern side of the area, but some form of barrier would have been essential.
- (iv) The two large pits in the south of area B were essentially rectangular, with smaller rectangular extensions. (Trench 4 layers 17 and 23). All sides of the pits were vertical, although the extensions were not cut as deeply as the pits themselves. A green organic soil formed part of their fill, and while this was by no means conclusive evidence, they are best interpreted as latrines or cess-pits. It may be speculated that the extensions to the pits developed from the repeated digging out of the filled-up pits from one side. There was no evidence to show how the pits themselves were covered or enclosed while in use. The lack of evidence suggests a flimsy structure, if one at all, perhaps with planking over the pits; however, a small section of collapsed brick wall in the ditch immediately to the south may indicate otherwise. Both pits were capped with a thick layer of redeposited clay which seems to suggest that the area continued to be used after the abandonment of these pits. This was substantiated by the evidence of the pottery and clay pipes from these pits which indicated that they both went out of use some time after 1630 but before 1650. Consolidation of their fill probably accounts for the fragments of late eighteenth century pottery in their upper layers.

If these were cess-pits, then this is evidence that Area B was being used for domestic purposes. In view of this and the position of this area with respect to the road, it seems probable that a dwelling once existed here.

The ditch which surrounded building area B was divided into two sections. The L-shaped section (Trench 4 layer 7 etc.), running along the south and part of the west side was broad and shallow, with a deeper central gully. Its profile and fill suggested more than one recutting. It sloped from north to south and west to east, draining into the main road hollow way. The northern two metres of this ditch was narrower and shallow and its fill of dark silty soil was covered with roughly laid shattered sandstone slabs. It did not appear to have been recut. A probable post was identified in its terminal and a further substantial possible post was located in the centre of the ditch where it narrowed. The likely explanation is that when the ditch was widened, its northern end was filled in, perhaps in connection with activity to the west of the main building area. The sandstone slabs may originally have been more widespread and survived because of the settling of the ditch fill before the whole area was ploughed, or they may simply have been used to consolidate the filling of the ditch.

The other section (Trench 3 layer 25) ran south-north and drained north towards the side road. As excavated, it was narrower, more irregular and had an homogeneous fill, although these characteristics may be explained by erosion. However, in view of the lack of stratigraphy to relate these features, and the slightly differing alignment, it must be considered a possibility that the northern ditch was not contemporary with the southern. It should be noted with this in mind that the scatter of cobbles behind area B once extended over and beyond this slot. Both lengths produced considerable quantities of pottery, coal and brick with smaller quantities of glass, slate, stone and clay pipe fragments. On the basis of the pottery and clay pipes it is possible to say that:—

- (i) The straight, more northern section of the ditch was in fact probably filled in before the final filling of the L-shaped section. The filling in of this section was after 1740, but probably not long after.
- (ii) The final filling in of the southern L-shaped section was probably about 1800.
- (iii) The middle layers in the ditch produced large quantities of pottery types which would have been in use up to 1770.

- (iv) The earliest layers produced pottery which would have been in use up to 1730, but also contained substantial quantities of seventeenth century pottery.

This suggests occupation of building area B throughout the first half of the eighteenth century and probably during the seventeenth century.

BUILDING AREA C

This again was defined by a ditch, the main road and a trackway. These features delimited an area approximately 11 m by 5 m. Within this area, slightly south of centre was an area of severely scorched clay, undoubtedly a hearth, flanked by two elliptical hollows. A complex of features both within and to the north of this area suggested at least one phase of timber building. Only a few of these features were deep enough to be identified as post-holes. However, fragments of a clay floor or platform survived over much of the south of this area.

Although alignments of features within this area can be seen their resolution into a coherent structure or structures does not seem possible. It can only be suggested that an east-west line of three posts approximately 3 m from the northern ditch was continued by a slot containing possibly two other posts and that part of an eastern line of posts was present.

In the south of this area were two intersecting pits; the shallower to the east was 0.2 m deep, while the other which cut it was 0.4 m deep. Their function is unknown, although it is interesting to note that pits occur in the southern part of each of the building areas so far described.

The ditch around two sides of building area C sloped from east to west, then from north to south draining into the ditch or hollow way running along its south side. The northern arm was narrow and shallow but widened as it turned south, reaching a maximum width of over 2 m and a depth of 0.7 m at the point where it was cut by a recent land drain. It had been recut along the length of its west arm at least once. Its fill was generally dark silty soil which contained many irregular blocks of sandstone of all sizes and much pottery. It was not clear whether this drainage ditch had formed an integral part of the occupation in this area of all times. The post pits to the north of the ditch may well have been part of a fence, but the possibility that they formed part of a structure pre- or post-dating the ditch cannot be ignored. Since the northern arm of the ditch was so shallow and showed no signs of recutting it is possible that this section was a later addition to an existing north-south ditch. Two of the internal features were on the line of this northern section, although no clear relationship was evident. That the ditch had no causeway on the west may imply that access to the backyard area was not possible from the building, but this could have been achieved by a plank bridge.

In the absence of dating material from the structural features associated with building area C, the pottery from the ditch gives the best indication of the period of occupation. Almost all the sherds in the upper fill were of sixteenth century date and in the lower fill the pottery was fourteenth and fifteenth century. Thus occupation of this area dates back to at least the fourteenth century, with disuse and consequent filling of the ditches occurring in the sixteenth century.

BUILDING AREA D

Building area D was not clearly defined by a single delimiting feature, so that for the purpose of discussion, it will comprise the whole of the southern extension to the main area of the excavation. There were several phases of activity represented by a stone wall footing, two gullies, probably for drainage, a number of apparently unrelated post-holes, and the end of a timber slot. There were also two levels of roughly laid stones and one massive pit or pond (Trench 8 layer 13 etc.) and part of shallow pit filled with bricks. The westernmost slot was fragmentary partly destroyed and sealed by the lowest stone surface. However it paralleled the more complete gully to the east. This was cut into the natural marl, was shallow and sloped north, turned east and emptied into a narrow pit approximately 1 m deep. Neither slot related directly to the structural features excavated: five isolated post-holes, the end of what appeared to be a timber slot with its end post, and a length of sandstone wall.

The sandstone wall consisted of a single row of large sandstone blocks, each with one well-dressed face, set into a step cut into the natural marl which sloped away to the east. The back of the step was filled in with roughly placed irregular blocks of sandstone. Much of the sandstone must have been brought from Norton Priory: not only was the dressing on some stones identical to the twelfth and thirteenth century masonry at the Priory but also a piece of moulded stone was found used as rubble in the backing. The southern part of the step upon which the wall rested

probably cut through the eastern gully mentioned above. A single clay pipe stem fragment from the wall is dated c. 1650-1750 but could have fallen into the interstices of the wall at any date.

The relationship of the wall and the two stone surfaces to the pit which dominates the south-western corner of the area poses problems of interpretation. The lowest level of stones certainly had southern limits defined by the edge of the pit, but this may have been because the pit was cut through them. The pit also extended right up to the stone wall. The clay infilling of the pit ran up to and partly covered the wall. Finally, the upper stone surface made up mainly of large, flat, well-worn blocks of sandstone covered some of the northern stones of the wall and continued down into the pit. The overall extent of these large worn stones suggested that they provided access from the north-east to the edge and even into the pit.

The pit itself was cut out of the natural clay and its slope appeared to follow a natural fault line between marl and clay. It had as its lowest fill a fine black organic clay which contained undecomposed wood and vegetable matter. It seems likely that when open it functioned as a pond, with the possibility that it was used as a watering place for animals. It was finally filled in with a layered deposit of orange clay, soil, coal and organic material. The tip lines suggested that the filling initially took place gradually from the south and west and was completed with a deposit of pure stiff clay which overlay the wall and the upper level of cobbles.

There is little evidence for the date of any of these features except for the infill of the large pit. The huge quantities of pot and the clay pipe fragments from layers throughout the pit indicate rapid filling in the late eighteenth/early nineteenth century.

TRACKWAYS

Four building areas have now been defined. The spaces between these areas provided a means of access from the main road into backyards and fields beyond. The extent to which a particular access route was used seems to have varied, as does the extent to which such routes were regarded as boundaries between the building units and their associated backyards or gardens. (Whether backyards and gardens were a permanent feature of the occupation of these units is not certain but several ditches and fence-post lines point to their existence at least at certain times.)

Between building areas A and B, a clearly defined trackway ran from the road edge, approximately at right angles to the main road, although veering south up to a point about 45 m from the edge of the hollow way in front of area B, where it merged with a hollowed-out trackway apparently running north-south. Throughout much of its length it was made up of tightly packed water-worn pebbles with a mixture of sandstone and brick fragments. Between building areas A and B, it was bounded on the north by the southern limit of area A, and on the south, by a broken line of long sandstone blocks which formed a kerb. At this point the trackway was 2 m across. As it reached the back of area B, the layer of cobbles became more scattered and extended southwards up the gentle north-south slope behind building area B, widening as if to form a cobbled yard. The surface of the trackway deepened also to form a broad, shallow hollow way which enhanced the natural break in slope. Beyond the main area of the excavation, only fragments of the trackway had been picked up, yet it was possible to identify two ruts which had been filled by large pebbles. Beyond these ruts an area of small pebbled cobbling, indicated a neatly laid and well maintained trackway running north-south, forming a steep sided hollow way almost a metre deep.

To the south of building area C and intersecting with the western arm of its drainage ditch, was another hollowed-out trackway which showed evidence of more than one phase of downcutting. The main hollow formed a continuous steep-sided feature running from the main road to the western edge of the excavation. This hollow was approximately 2.50 m across and flat-bottomed. However, approximately half way across the site two shallower steps cut into the natural to the south suggested a gradual widening of the track as it progressed westwards. Although no difference could be distinguished in the fill, the possibility that these were earlier alignments than the main hollow was not discounted. It seemed likely that, despite the lack of cobbling these once formed a route from the road to the fields beyond the street front. Unfortunately, the relationship of this feature to the ditch around area C was obscured by two land drains, as was its exact relationship with the main road hollow way. It was observed, however, that in wet weather this hollow would carry water away from the surrounding ground surface into the main street and clearly would have doubled as a drainage ditch.

The space between areas B and C contained a well which appears to have restricted access from the main road to the west. Not only was there no cobbled or hollow way running down to the road, but several intersecting north-south slots to the west of the well must also for some time have prevented use of this route. The earliest of these was a broad shallow gully (Trench 5 layer 162)

widening to the north and possibly draining off west by means of another narrower channel. A narrow slot (Trench 4 layer 50) sloping from north to south cut both this broad gully and a fragment of an earlier slot to the north-east on a slightly different alignment. A large shallow pit (Trench 4 layer 157) lay to the north of this latest slot and it was impossible to discern whether it formed part of this complex of features. Whatever the original form or sequence of these features, it seems possible that they were drainage channels and sumps and it may be suggested, were designed to impede the natural flow of water and silt down the slope from the west into the well.

A shallow linear hollow (Trench 5 layer 10) did exist to the west of these slots but could not be traced east of them. It was nearly 2 m across and only 0.2 m deep. That it was shallow and not cobbled may suggest that it had not been used as frequently as the other two side tracks but it is also possible that only the bottom of a hollow survived and that it was once deeper and perhaps extended to the roadway but its banks had been eroded away to its present state. This seems unlikely since there is no reason to believe that greater erosion would have taken place here than elsewhere on the site.

There was further evidence that this hollow way had not been used as intensively as the other two side tracks to the north and south. Firstly, on the line of this hollow track were four pits, at least two of which cut through the partly silted up hollow some time after the mid to late seventeenth century. Secondly, a ditch (Trench 4 layer 13) running along the western edge of the area excavated subsequently cut through the silted up hollow way and one of these pits. This ditch itself probably began to silt up by the eighteenth century, so that the evidence strongly suggests that the central hollow way went out of use well before the complete abandonment of the other hollow ways towards the end of the eighteenth or early nineteenth century. The J.E. map of 1757 confirms that no boundary existed here at least by that date (fig. 25).

The boundary ditch was approximately one metre across and up to 0.5 m deep. It ran north-south between the northern cobbled side track, which it underlay, and the southern hollow way, the fill of which it partly cut. It had been recut several times and was filled with a mixture of clay and soil. There was an indication from part of its length that there had been a bank on the east side of this ditch and also that the ditch had been complemented, or superseded by a line of fence posts which ran along its eastern edge. This was not a continuous line of posts and there was no evidence to link all the posts.

When in use, these tracks and ditch would in themselves have formed boundaries between areas used for different purposes and possibly between areas under different ownership. Other divisions existed across the site which supplemented or complemented the trackways and ditch. No doubt hedges and banks were an important element in the division of the area, but, given the nature of the soil and the lack of stratigraphy, it is not surprising that these have not survived. Fence lines, however, have been identified. Along both the north and south edges of the northern trackway, there were indications that fence lines existed, although it is in no case clear that these were contemporary with the track. On the north a line of irregularly spaced shallow pits formed a doubtful and certainly much eroded fence line but one which approximately fitted in with the area of more closely set cobbles. More certain were two lines of posts running north from the edge of the cobbles. They suggest a division of the land behind area A. To the south, a short shallow slot edged the cobbles and further to the south a line of almost contiguous posts, which became more widely spaced to the west, followed the general line of the track for at least 10 m. It seems likely that this was a fence. More difficult to interpret was the slot or ditch which the more westerly of these pits cut. It appeared only partly in the excavation but continued or lay on the same line as the posts. Yet another four posts, to the west and slightly further north, three of them definite and the fourth cut by a land drain, lay exactly on the edge of the cobbles.

To the south of the southern hollow way, a line of post-holes running west to east may have been a line of fence posts. About half way across the site it met a north-south slot or gully running from the southern limit of the excavation. It can only be conjectured that this slot formed part of a north-south boundary. On the west side of the excavation, in the southern of the two westward extensions, the corner or end of a ditch just appeared in the excavation. It had been recut at least twice. A thin layer of charcoal lined the bottom of each recutting, suggesting that this activity coincided with the burning of vegetation nearby. Finally, it may be suggested, very tentatively, that there were two other lines of demarcation within the site. They consisted of two bands of irregularly distributed posts and small features. One ran east-west just to the north of the central hollow way dividing the area between areas B and C; the other ran north-south across the area behind area C. A shallow pit at the west end of the east-west band of features, in the bottom of which were several smaller pits, may be the result of the digging out of a tree.

SUBSIDIARY BUILDING AREAS (Fig. 30)

To the west of building area B, a further rectangular area was defined by two narrow slots draining west-east into the ditch of the main building. One (Trench 4 layer 9) had been recut at least once and had a silty fill; the other (Trench 4 layer 211) had a coal-rich dark soil fill. The southern slot was up to 0.2 m deep and terminated just as it turned north; the other slot, which was parallel to it, was shallower and petered out to the west. The northern extent of the area defined by these slots was uncertain, unless it were assumed that the cobbles formed a limiting feature. A slot running north, emanating from a sub-rectangular hollow, may have formed part of a western limit but this ran into the cobbles, without an obvious relationship. Within the annexed area post-holes and small pits suggested a timber structure. The use of this area for building was a likely context for the blocking of the end of the western arm of the ditch around building area B. Activity was further indicated by a spread of charcoal and coal over the adjacent cobbles. On the southern edge of the area a group of sandstone slabs sunk into the subsoil was covered and surrounded by soil containing many small coal fragments and this deposit spilled over and filled much of the slot running alongside.

A large rectangular pit (Trench 4 layer 138) penetrated the western gap in the drainage features around this area. It was nearly 1 m deep, had near vertical sides and was filled with dark brown organic soil. Cut into either side, although not equidistant from the ends, were two post-holes. Slightly further out from the south and north sides of the pit were two rows of three and four post-holes; three pairs of which were approximately opposed across the pit. There is no stratigraphical evidence to link these posts with the pit, yet a flimsy structure over a latrine pit might be conjectured. A small group of pottery and three clay pipe fragments from the pit suggest that it was filled in during the first half of the seventeenth century.

Moving to the west, a complex of post-holes presented problems of interpretation. Many of the post-pits were large with discernable post-pipes and packing but others were smaller and had a characteristic clay fill, occasionally with a dark silty upper layer. Several of the post-holes occurred in pairs (in four cases cutting each other), which suggested replacement. In fact, parts of two intersecting rectangles of posts can be identified (fig. 30). This interpretation is based on spatial relationships of the posts, as well as the characteristics of the post-holes but does not claim to cover all the possibilities. A peculiar circular slot (Trench 4 layer 127) occurred just within both rectangles of posts. The feature was up to 0.30 m deep and had a continuous fill of grey-brown silty clay. There were no other associated features, evidence of burning or disturbance of the central area. It may have resulted from the pruning of roots of one of the fruit trees of the orchard, though other interpretations are possible.

It has been suggested that the band of small pits and post-holes in the area behind area C may have been a fence line or a hedge. Included in this band, however, were a group of post-holes which almost certainly represented a small rectangular structure. A total of eleven posts made up this complex; eight in two lines of five and three respectively made a neat rectangle 2.5 m by 2.0 m and another three were within its area. No trace of the extra two posts on its east side could be found. Two similar, although more irregular groups of posts, one to the south of the southernmost hollow way and another to the north of the central hollow way in the centre of the site, were more difficult to interpret as structures, since the posts in each group varied considerably in size and depth; however, the similar layouts and the size of all three areas perhaps gives the other two greater credibility as small out-houses associated with the main structures.

There remains only one complex of post-holes to discuss; that to the south of building area B and to the west of the well. This area contained more post-holes with identifiable post-pipes than any other area, yet was the most problematic in its layout. Many post-holes had a fill which was different from most others on the site. Three shallow pits, possibly associated with this complex had sandy fills. Two contained no finds, whilst the other (Trench 4 layer 252) in the north-west produced a small quantity of medieval pottery.

THE WELL (fig. 29, d)

This was situated between areas B and C and on the projected line of the central hollow way. It was set slightly west of the apparent line of the main road hollow way which swung west at this point to give access to the well. The hollow way sloped quite steeply away from the well. The well itself, had a broad opening at the top which narrowed to an approximately square plan with sides of about 1.5 m. It was over 4 m deep and when emptied in the relatively dry summer of 1975 was damp but did not accumulate water without rain. Its fill was of damp clay for the lower 2 m (Trench 5 layers 30 and 52) and this produced well preserved wood, stakes of hazel, part of a

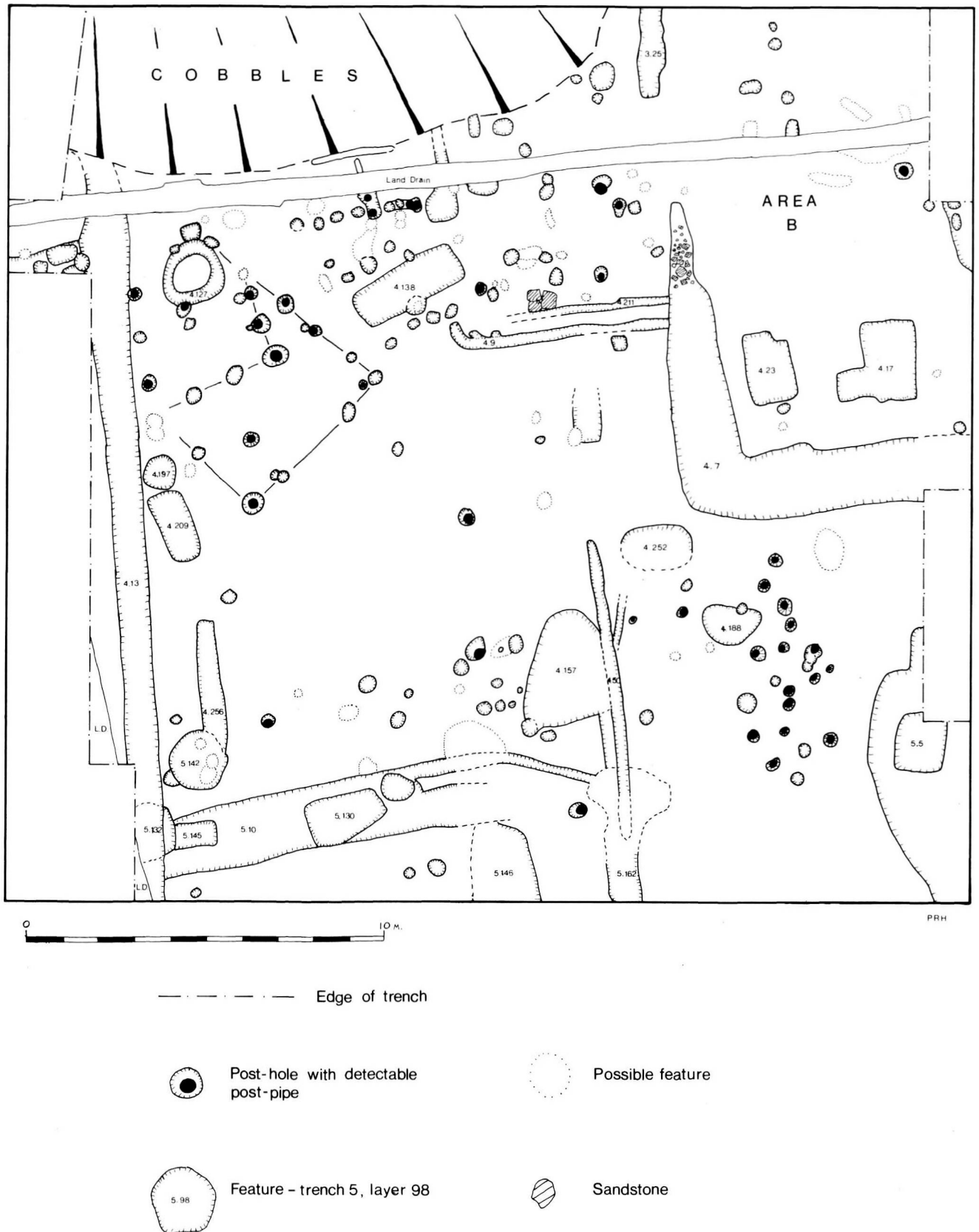


Fig. 30 Post hole complex in the vicinity of area B

plank with a grooved edge, probably of oak, and many twigs and leaves including examples of rose, blackthorn, rowan, elm or oak, sycamore and cherry. (See appendix 1). A limited amount of pottery of fifteenth to seventeenth century date was found in the main silting of the well, with some eighteenth century pottery and a clay pipe fragment in the upper fill (Trench 5 layer 5). This suggests that the well went out of use some time in the sixteenth century and had been completely filled in by some time in the late seventeenth or early eighteenth centuries although, through con-

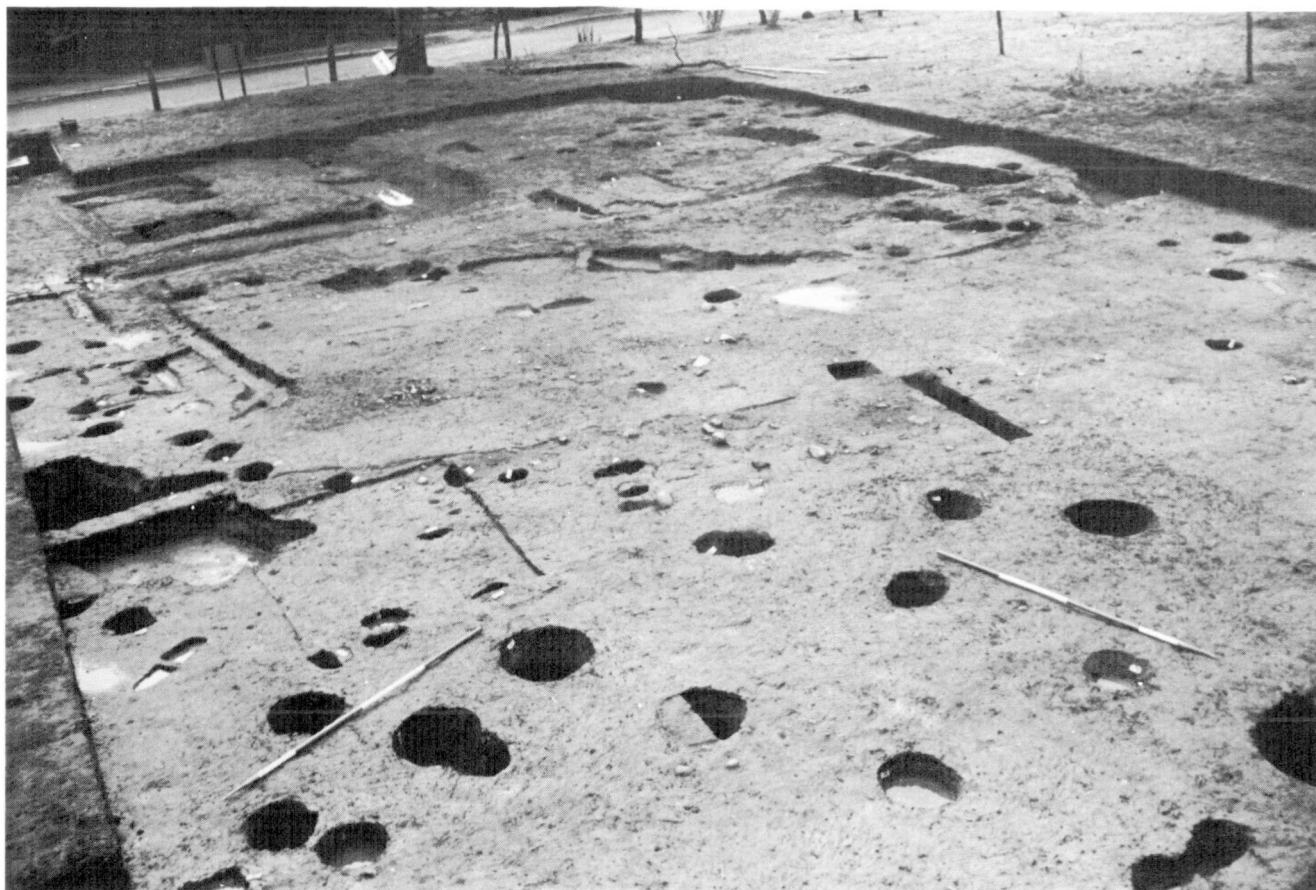


Plate 13 1974 excavation; trench 4, area of the west of building area B

solidation, material continued to accumulate until the early nineteenth century. The fact that the main road hollow way runs to meet the well perhaps indicates communal use. There was no evidence of a covering or any associated structure.

AREA BEHIND BUILDING AREA C

A hollow was located approximately 10 m west of Area C. Its extent is shown on figure 30, although this is necessarily approximate as the hollow did not have clearly cut sides. It was up to 0.25 m deep and contained a dark brown silty soil with a concentration of sandstone slabs and fragments in its southern half. The soil contained a scatter of late medieval sherds of pottery and a decorated lead spindle whorl.

To the west in the extension of the excavated area the soil profile deepened appreciably. A more developed profile, with differentiated A and B horizons took the place of the homogeneous plough soil which covered most of the rest of the site. The survival of pear trees in this western area may account for the development of this horizon. However, the deeper soil may coincide with the ancient area under cultivation behind the croft. A scatter of thirteenth or fourteenth century pottery was found at the base of this soil.

THE LAND DRAINS

A total of ten land drains and one sewer drain were encountered within the excavation. The sewer drain in the southern extension ran from south-west to north-east and was of a modern ceramic type. The land drains were neatly cut rectangular channels running, for the most part in straight lines. Four main types of drain were observed; two had a simple sandstone boulder fill with a capping of clay; six had inverted U-shaped ceramic conduits with clay packing; one had a drain constructed of three bricks, one on either side, the other as capping; the last had a pipe of circular cross-section, with two small projecting legs. The stone filled and U-shaped drains appeared to be earliest, both being cut by the brick drain, running north-south, while in the southern extension the circular cross-sectioned drain also cut the two U-shaped drains. U-shaped drains were used

in Staffordshire as early as the end of the late eighteenth century. In general the drains had been dug across areas which would certainly have presented drainage problems once the site had been returned to agriculture.

THE PREHISTORIC PITS

One pit on the site produced ten sherds and a total of nine flint flakes. The pit was an elongated oval in plan and approximately 0.5 m deep. It had a distinctive sandy fill with a lower level containing quantities of charcoal and from which came the pottery and flints. This pit lay in the northern of the two westward extensions to the site and was overlaid by cobbles and cut by several other features. Another pit (Trench 5 layer 145) with a similar sandy fill produced a single sherd of similar pottery. Neither pit contained later pottery or any other finds. Across the whole site a total of 23 sherds were found, including four rims.

DATING EVIDENCE

The almost complete lack of stratigraphy presented considerable difficulties in working out an overall chronology for the site. Even deciding on the relative sequence of events was not a question of considering clear-cut relationships between features, for these rarely existed. Other sources of dating give valuable, but by no means complete information and many gaps must remain in our knowledge of the development of the site.

The documentary sources and in particular the map evidence, gave several 'fixed points' in the history of the development of the village, provided the evidence could be related to the remains on the ground. In the case of the maps of 1757 and 1844 (figs. 25 and 26), this proved possible to a fairly high degree of accuracy. Measurements taken on the 1757 map showed, for example, that the remains of two buildings and two east-west boundaries ought to have been located within the area of the excavation and a third should have been just beyond its northern limit. These have been identified as building areas B and D and the northern cobbled trackway and the southern hollow way respectively, although there is some doubt about the identification of building area A (see below). Their absence from the Dunn 1811 map is completely in accord with the evidence from the excavation that the buildings and other features became disused and filled-in in the late eighteenth century.

COINS

There were four coins found on the site, one of silver and three of bronze. The silver coin was Elizabeth I (1558-1603) and was minted not later than 1570. It was in good condition and presumably not in circulation long before it was lost, unless it had been hoarded. It was found in the cobbles in front of area B, and in a context which also produced sixteenth century pottery. Two of the bronze coins were not identifiable, the other was a half penny of George III (1770-1775) and was found in a shallow pit in the southern extension to the main area of the excavation. Unfortunately, this pit was not clearly related to any other features, so that any dating value the coin had was in fact extraneous, except in that it tended to confirm the provisional dating of the pottery with which it was associated, i.e. the late eighteenth to the early nineteenth centuries. The coin was well worn and so had been in circulation some time before being deposited in the pit.

DISCUSSION

The excavation has confirmed and amplified the evidence of the documentary sources that Norton was once a village with a regular arrangement of streets, houses and crofts.

While no close dating can be put on the earliest phases of building from each area, there was evidence that the site was in use over a considerable period of time. From area A, the earlier phase features have produced pottery which was unlikely to have been in use later than the end of the sixteenth century. The two cess-pits within area B were probably filled in before the seventeenth century on the evidence of clay pipes and pottery. The ditch around area C produced a large group of pottery none of which need be later than the sixteenth century and much of which was earlier still. A few fragments of pottery from the earlier slot in area D had a similarly early date. Included within all the groups of fifteenth, sixteenth and seventeenth pottery were sherds of probably thirteenth and fourteenth century date, so that it may be assumed that activity on the site dates

back to at least this period. The stratified deposits from the main road hollow way indicated that rubbish of the sixteenth century accumulated in the roadway some time after the deposition of the earliest layers so that the hollow way was at least in use during the sixteenth century and probably earlier. Occupation before the thirteenth century would be hard to recognise, due to the small amounts of pottery apparently in use (Greene and Noake forthcoming).

It was likely that these buildings which fronted onto the main street were domestic houses with a backyard or croft area, each croft being separated from the next by boundary fences, trackways, hedges or a combination of these. That these boundaries existed from the inception of the laying out of the house plots could only be surmised, for all the pottery from the trackways necessarily related to the latest period of use. In the case of the northern cobbled trackway and most of the southern hollow way, this was mid to late eighteenth century, while the pottery from the central hollow track is somewhat earlier. The northern cobbled trackway has been identified on the 1757 Estate map as the fourth boundary from the southern end of the village. Both on the map and on the ground, this boundary bends north from the direction of the other croft boundaries shown.

This northern track way meets a north-south cobbled hollow way at a point which corresponds to a point of intersection with a boundary on the 1757 map running the whole length of the back of the croft areas. Each of the side tracks between the crofts probably met this 'back lane' or boundary, although whether from this point they continued west as trackways could not be said.

There were indications of divisions within the crofts themselves, and in two these possibly fenced-off a small garden from a grazing area.

One further boundary ditch spanned both yards behind areas B and C. It is thought that the significance of this lay in the pottery evidence that house area C went out of use in the sixteenth century. It is suggested, therefore, that house C became derelict and the house plot and associated croft became vacant. Probably at the same time the well began to silt up and later the hollow way between the crofts associated with areas B and C went out of use as did at least the western end of the hollow way to the south of area C. The owner of house B then acquired plot C and created a boundary across both areas which cut both central and southern hollow ways.

The place of areas A and D in the development of the site is less clear. The early existence of a building in area A has been demonstrated by excavation and on the (J.E. 1757) Estate map, within the croft to the north of the cobbled boundary, a building is shown. However, the rectangle representing the building on the map is set well north of the boundary while the building which partly appeared in the excavation is immediately adjacent to the boundary track. It is possible that the building excavated is in fact part of an earlier one replaced before 1757 by one further north but it is just as likely that the cartographer in 1757 wished only to indicate that a house existed and not to locate its position exactly, just as he does not see fit to represent the boundary precisely.

Some time after 1757, since it does not appear on the estate map a pond was dug in the south-east corner of the area which used for its eastern limits the modified west wall of house D, which must have been abandoned previously. The pond did not, however, remain in use for long. Before 1811 (Dunn), all features remaining open on the site were filled in. These included the later features associated with area A, the ditch around area B, the eastern half of the southern hollow trackway and the pond; the cobbles of the northern trackway became silted up and scattered with rubbish and the main road hollow way was partly filled-in and rationalised. On Dunn's map, the area is shown in the tenancy of a Mr. Dodd, whose house was the newly constructed Norton Lodge which still stands on the east side of the street. The present Lodge Farm consisted only of farm buildings and not a dwelling. It was part of Dodd's tenement which also incorporated the area excavated. The disuse of the features in the late eighteenth century can thus be seen as part of a drastic re-ordering of the village by the Brookes with more efficient tenements. The excavated area thereafter was used solely for agriculture and land drains were dug across the damper parts.

A NOTE ON THE STRUCTURAL EVIDENCE

Very little can be said about the structural details of the buildings excavated at Norton village. The only certain evidence of a wall line appeared in area D and this low sandstone wall is thought to have been the dwarf foundation for a timber framed structure. The presence of a large quantity of sandstone rubble, although no dressed blocks, in the ditch around area C may suggest the demolition of a dwarf wall similar to that in area D. The large numbers of post-holes and small pits in area C indicated the use of vertical earth-fast timbers in at least one phase of construction. The presence of brick in the ditch around area B indicated at least limited use of this material as well as roof slates.

The problem of how building A was constructed cannot be solved with the limited area available for examination. However, it is the only building which shows any signs of a wall trench and as such may be of a different form of construction to the other main buildings. Subsidiary buildings all seem to have utilised earth-fast timbers.

Norton village is a site where stone suitable for building was available nearby but not actually on the site, so that it falls into the category which Hurst has suggested would have tended to change to dwarf wall construction after an initial period of building in timber or cob (Beresford & Hurst, 1971, 96)

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| White 1844 | Henry White, surveyor, Tithe Map 1844, Cheshire Record Office, ref. no. EDT 307/2. | |

ACKNOWLEDGEMENTS

The writers wish to record their thanks to the large number of individuals whose help made the Norton Village excavation possible: Mr. E. West of Lodge Farm for providing site accommodation; members of staff of the Development Corporation and especially Ian Richardson and Bob Burroughs for information on vegetable remains and the geology of the site respectively; to the excavation supervisory staff including Catherine Hough, Pam Carter, Paul Courtney and Noel Edwards, and to the large number of volunteers (members of the Norton Priory Society and others) who worked in such demanding conditions.

APPENDIX ONE

THE BOTANICAL REMAINS IN THE LOWER PART OF THE WELL

by Ian Richardson

About half of the material proved to be identifiable by eye, as follows:—

Hazel (*corylus abellana*): diameters of about 5-40 mm., quantity about two-thirds of the identifiable material, by volume.

Rose (*rosa canina*): five items, diameters about 5-15 mm.

Blackthorn, Sloe (*prunus spinosa*): two items and two probable; diameters about 20 mm.

Rowan, Mountain Ash (*Sorbus aucuparia*): one item, about 10 mm. diameter, but some of the unidentifiable material could also have been rowan.

Elm or Oak (*quercus robor*): one item plus two items of sawn wood which would be more likely to be oak.

Sycamore (*acer pseudoplatanus*): one leaf.

Cherry (*prunus*): one stone, more likely common cherry, but could be bird cherry (*prunus padus*)

Reed, Bullrush, Reedmace (*typha latifolia*): several items of leaves about 14 mm. wide and seeds enclosed in a pod of tapering shape—seeds about 3.5 mm. long and 1.5 mm. wide.

The preponderance of hazel can be explained by the practise of coppicing to provide a constant supply of wood suitable for the construction of hurdles etc. Birch and rowan were also used in this way, but are less strong and durable than hazel. One of the hazel stakes of about 40 mm. diameter was roughly shaped to a point. This would be best effected on the end nearest to the root for greater hardness, owing to the presence of more heart-wood. However, the wood would not have been taken from the root itself, as the idea of coppicing is to leave enough trunk to encourage the sprouting of further growth to ensure a continuing supply from the same root stock. No willow was identified, but this would break down easily and not survive. It was surprising not to find more oak, since it grows with hazel.

Ian Richardson,
Deputy Woodlands and Open Spaces Manager,
Runcorn Development Corporation

APPENDIX TWO

CLAY TOBACCO PIPES

by P. J. Davey

During the excavations 345 fragments of clay tobacco pipes were recovered from 105 contexts (an average of 3.3 per context). They include 22 (6%) classifiable bowls, 311 (90%) measurable stem-bores and 34 (10%) unclassifiable and unmeasurable pieces.

Fabric Types

Using a hand-lens three major fabric types can be identified, lettered A to C.

- A. Very hard, dense, fine-grained, high-fired fabric with frequent opaque quartz inclusions up to 0.5 mm in diameter; voids in the fabric and cracking on curved surfaces is common; granular fracture; colour varying from deep pink, through pale orange to pale grey, considerable variation within an individual example; many specimens retain straw or grass marks received before firing; individual clay particles visible in broken sections.
- B. Fine-grained fabric, much softer than A; frequent quartz inclusions up to 1.0 mm in diameter, many small white mica flakes (? muscovite), occasional dense black or red inclusions; few voids; granular fracture; soapy feel; colour pale pink or orange, the body being usually much whiter than the outer surfaces, much less variation within individual examples than A; sometimes polished before firing; clay particles visible in broken sections.
- C. Very smooth, dense, hard fabric; inclusions of any kind very rare; voids absent; smooth fracture, occasionally conchoidal; even colour, almost pure white; individual clay particles not normally visible in fractures sections.

The distribution of pipe fragments by layer, stem-bore and fabric type is set out in *Table One*. The relationship between fabric type and bore diameter is shown in *Table Two*.

Table One

Lodge Farm, Norton, 1974-76

Clay Tobacco Pipes

C	4	5	6	7	8	9	T ¹	B	F	T ²	Fabrics (Bore in 64th" in brackets)
1/1			1	1		1	3			3	2B(9; 7); 1C(6)
1/6				1			1			1	1A(7)
1/20						1	1			1	1A(8)
1/21				1			1	1		2	1A(7); 1B
1/26	1						1			1	1C(4)
1/28	1									1	1C
2/1	1	4	2				7			7	1B(6); 6C(1 × 4; 4 × 5; 1 × 6)
2/2	1						1			1	1C(4)
2/10		2					2			2	2C(5)
2/14		2	4	1			7	2	1	8	1A(7); 7C(2 × 5; 4 × 6; 1 fragment)
3/1	2	4	1	2			9		1	10	3B(2 × 7; 1 × 6); 7C(4 × 5; 2 × 4; 1 fragment)
3/2	3	4	2	1			10		4	14	1B(7); 13C(3 × 4; 4 × 5; 2 × 6; 4 fragments)
3/3		1	2	2			5		3	8	3B(1 × 6; 2 × 7); 5C(1 × 5; 1 × 6; 3 frags.)
3/6	1						1			1	1C(4)
3/10			1				1			1	1C(6)
3/12									1	1	1B
3/14		2					2			2	2C(5)
3/25				1			1			1	1A(7)
3/26		1	1		1		3			3	1A(8); 1B(6); 1C(5)
3/27			1	1			2			2	1B(7); 1C(6)
3/28	2		4				6			6	2B(6); 4C(2 × 4; 2 × 6)
3/29			1				1			1	1B(6)
3/30			1		1		2			2	2B(1 × 6; 1 × 8)
3/32			1				1			1	1C(6)
3/36		1	1	2			4			4	2B(7); 2C(1 × 5; 1 × 6)
3/53	1	2	1	5	3		12		1	13	2A(8); 5B(4 × 7; 1 × 8); 6C(1 × 4; 2 × 5; 1 × 6; 1 × 7; 1f)
3/55					1		1			1	1A(8)
3/58					1		1			1	1B(8)
3/83					1		1			1	1B(8)
3/115				2			2			2	2B(7)
4/1		3					3			3	3C(5)
4/2		1	2	2	1		6		2	8	4B(6; 2 × 7; 8); 4C(5; 6; 2 fragments)
4/3		1	1		2		4			4	1A(8); 2B(8; 6); 1C(5)
4/7		1		1			2		1	3	1B(7); 2C(1 × 5; 1 fragment)
4/8	2	1	2	1			6			6	1B(7); 5C(2 × 4; 1 × 5; 2 × 6)
4/14				4			4			4	4B(7)
4/15		1	1				2			2	2C(1 × 5; 1 × 6)
4/16			1				1			1	Unclassified
4/20				1			1			1	1B(7)
4/21				1	2		3			3	3B(1 × 7; 2 × 8)
4/24				1	1		2	1	1	3	1A(7); 2B(1 × 8; 1 fragment)
4/26				2	1		3			3	2A(7); 1B(8)
4/27				3			3	1		3	3A(7)
4/30				1			1		1	2	1A(7); 1C(fragment)
4/31			11	21	7		39	9	2	41	41A(11 × 6; 21 × 7; 7 × 8; 2 fragments)
4/34				3	1		4	1		4	4A(3 × 7; 1 × 8)
4/39				6	2		8		3	11	11A(6 × 7; 2 × 8; 3 fragments)
4/41			1	2	1		4	1		4	3A(2 × 7; 1 × 8); 1B(6)
4/42				1			1			1	1A(7)
4/49			1	2			3	1		3	3B(1 × 6; 2 × 7)
4/51				3	6		9	1		9	9A(3 × 7; 6 × 8)
4/99	1			1			2		1	3	1B(7); 2C(1 × 4; 1 fragment)
4/101		1					1			1	1C(5)
4/115		1					1			1	1C(5)

Table One—continued

C	4	5	6	7	8	9	T ¹	B	F	T ²	Fabrics (Bore in 64th" in brackets)
4/136						1	1			1	1A(9)
4/237	1						1			1	1C(4)
4/245				1			1			1	1B(7)
5/1									1	1	C(Fragment)
5/2			1				1			1	Unclassified
5/3					2		2			2	1A(8); 1B(8)
5/5			1				1			1	1C(6)
5/7				1	1		2			2	2B(1 × 7; 1 × 8)
5/9			1				1	1		1	1B(6)
5/10				1			1			1	1B(7)
5/13					1		1			1	1B(8)
5/15			2				2			2	2B(6)
5/16					1		1		1	2	2C(1 × 8; 1 fragment)
5/18					1		1			1	1B(8)
5/22				1			1			1	1C(7)
5/25			1	1			2		1	3	3B(1 × 6; 1 × 7; 1 fragment)
5/51		2					2			2	2C(5)
5/132									1	1	1B(Fragment)
5/184			1				1			1	1B(6)
6/1	3		3				6			6	1A(6); 2B(6); 3C(4)
6/4		2	3	2	2		9			9	2B(8); 7C(2 × 7; 3 × 6; 2 × 5)
6/5				4	2		6	1		6	6B(4 × 7; 2 × 8)
6/53					1		1			1	1B(8)
7/1	3						3	1		3	3C(4)
8/1	1	1			1		3			3	2C(1 × 4; 1 × 5); 1 unclassified.
8/4	1		2				3			3	2B(6); 1C(4)
8/7	1						1			1	1C(4)
8/12		1					1			1	1C(5)
8/13		1					1			1	1C(5)
8/14		1					1			1	1C(5)
8/28				1			1			1	1B(7)
8/30		1					1	1		1	1C(5)
8/33			1	1			2			2	1A(6); 1B(7)
8/34				2			2			2	2B(7)
8/35	1			1			2			2	1B(7); 1C(4)
8/36	1						1	1		1	1C(4)
8/37	1						1			1	1C(4)
8/38			1	1			2	1		2	1B(7); 1C(6)
8/39		1		1			2			2	1B(7); 1C(5)
8/41	1	1					2			2	2C(1 × 4; 1 × 5)
8/43	1		1	1			3	1	1	4	2B(1 × 7; 1 × 6); 2C(1 × 4; 1 fragment)
8/44	2						2			2	2C(4)
8/48		1					1			1	1B(5)
9/1		1	5	2			8			8	5B(2 × 7; 3 × 6); 2C(1 × 5; 1 × 6); 1 unclassified
9/4									1	1	1C(Fragment)
9/5				2			2			2	2C(7)
10/1	2	2	1	1			6			6	2B(1 × 6; 1 × 7); 4C(2 × 4; 2 × 5)
10/2	3	3	2	1	2		11		3	14	6B(1 × 6; 1 × 7; 2 × 8; 2fgs) 8C(3 × 4; 3 × 5; 6; 1f)
10/3	1						1			1	1C(4)
10/7	1						1			1	1C(4)
10/8				1			1		1	2	1B(7); 1C(fragment)
105	39	51	70	102	47	27	311	22	34	345	A(90); B(106); C(145); Unclassified(4)

- Key:- C = Context
 4-9 = Stem bore diameter in 64th"
 T¹ = Total number of measured stems (including bowls with stems)
 B = Number of classifiable bowls
 F = Number of unmeasurable or unclassifiable fragments
 T² = Total number of excavated clay pipe fragments

Table Two

Bore in 64th"	4	5	6	7	8	9	Fgmts	Total
Fabric A			13	47	24	1	5	90
Fabric B		1	27	49	21	1	7	106
Fabric C	39	50	27	6	1		22	145
Unclassified			3		1			4
Total	39	51	70	102	47	2	34	345

Illustrated Examples (Figs. 31, 32)

1-13 *Hand-made bowls in fabric A*

- | | | |
|-------------------|-------------------|-------------------|
| 1. 7/64"; 4/24. | 2. 7/64"; 4/27. | 3. 7/64"; 4/34. |
| 4. 6/64"; 4/41. | 5. 6/64"; 4/31A. | 6. 6/64"; 4/31B. |
| 7. 6/64"; 4/31C. | 8. 8/64"; 4/31D. | 9. 6/64"; 4/31E. |
| 10. 6/64"; 4/31F. | 11. 8/64"; 4/31G. | 12. 7/64"; 4/31H. |
| 13. 6/64"; 4/31I. | | |

None of the examples exhibits the smooth and regular curved surfaces normal in bowls made by the more sophisticated moulding methods current in both Chester and South Lancashire by the 1660s. Surfaces are lumpy and irregular; bowls are assymetric, both in themselves and in relation to the stems, some are rouletted (1, 2, 5, 7, 10, 12, 13), the rest have a pinched or turned incision just below the lip.

These bowls are intermediate in form between London types 5 and 10 (Atkinson and Oswald, 1969, 177-178). Locally they are most closely paralleled by Chester forms A-C (Davey 1975, 31), some examples already exhibiting the pinching in near the top of the bowl and flaring of the lip so characteristic of the north-western products of a slightly later period (e.g. Chester forms D-F).

The Norton finds are almost certainly 'local' products of the period 1640 ± 10.

14-17 *Bowls of South Lancashire type in fabric B*

14. IB stamp in relief on the back of the bowl; irregular milling; lightly polished surfaces; 6/64"; 2/14, SF 7.
15. Worn north-western type stamp with T ? in relief on the back of the bowl; 7/64"; 6/5.
16. Worn stamp as 15; stem-bore unreadable; 3/2, SF 13.
17. Undecorated bowl (damaged); 6/64"; 4/49.

The rather squat bulbous bowls illustrated here are well paralleled in the Warrington Museum collection (Davey and Petch 1976, 11-14). The IB stamp is one of the most common from the area, but the damaged marks which read either TB, TP or TR are so far unrecorded from any other site. They retain, however, the common north-west style of frame.

The Norton finds are almost certainly South Lancashire products of the period 1670 ± 10.

18. Bowl in fabric B; splayed and ribbed heel; line of lip parallel to stem; curved undersides; 6/64"; 5/9.
 Transitional late seventeenth/early eighteenth century form equivalent to London type 21 (Atkinson and Oswald 1969, 179-180), Oswald type 9 (1975, 37-39) and Chester form J (Davey 1975, 32).

As Chester pipes of this type are almost always in fabric C, this is probably a South Lancashire product; 1700 ± 20.

19. Splayed and ribbed heel similar to 18, but highly polished and in fabric C; 7/64"; 3/53, SF 64(part).

Probably made in Chester, 1700 ± 20.

20. Bowl in fabric C; slightly flared lip; very smooth outer surfaces on a thin body; 6/64"; 2/14.

An early eighteenth century form equivalent to London type 23 (Atkinson and Oswald 1969, 179-180), Oswald type 20 (1975, 40-41) and Chester forms G-K (Davey 1975, 32).

Made in either Chester or South Lancashire, 1710 ± 20.

21. Bowl with Masonic emblems; fabric C; 5/64"; 8/30.

Pipes incorporating these emblems in the mould were being produced in London by about 1750 and had become widespread by the nineteenth century (Atkinson and Oswald 1969, 200). As this example carries no individual maker's mark it might have been made almost anywhere in the British Isles between c. 1840 and 1900.

- 22-23. Decorated bowl fragments; fabric C; 5/1 and 3/53, SF 42 respectively.

Source unknown; nineteenth century.

24-27. *Decorated 'Chester' stems in fabric C*

24. Narrow zone of curvilinear decoration; 5/64"; 3/53; SF 64 (part)

Probably the frame for an Inn sign or Coat of Arms central panel (cf Webster and Barton 1957, 24, Fig. 1).

25. Five parallel rows of impressed rectangles; 5/64"; 4/8, SF 35.

Probably part of the frame for a more complex design (see 24 above).

26. Stem with inn-sign type of decoration; depicting a crown surmounted by a mythological beast with wings and a forked tail, 6/64"; 3/36, SF 65.

The sign depicted might be 'The Crown and Dragon', but in view of the known symbolic character of the crown in some such inn-signs (cf. Webster and Barton 1957, 20, no. 5), 'The Red Dragon' is perhaps more likely.

27. Simple spiral stem; 6/64"; 9/1.

Similar to, but not identical with a stem from Trinity St., Chester (Webster and Barton 1957, 24, Fig. 1, no. 8).

The typological development and absolute chronology of these stems is uncertain. The evidence of marked examples so far studied suggests that they were being produced by 1700 and do not continue long after 1730. The absence of published groups from the mid-late eighteenth century must leave this latest date somewhat in doubt.

28. Stem fragment stamped T. PLVMBLY with two pairs of parallel lines of small rectangles above the name and three pairs below it; soft, off-white fabric with very small (<0.05 mm in diameter) angular black inclusions; 6/64"; 5/2.

No maker named Plumbly is recorded in the British lists (cf Oswald 1975, 130-207), but Andrew White notes examples of the same maker from Watercrock and Lancaster (correspondence). The style of the decoration is Dutch and is easily distinguished from the Chester products.

29. Stem fragment; very worn stamp which reads something like ... ONBSEE...; fabric as 28; 6/64"; 9/1.

Again Dutch style decoration. (See too the ELIZ SAUAIG stems from Warrington p 00 below). This group of stems suggests the possibility of a Dutch stamp maker working in the vicinity.

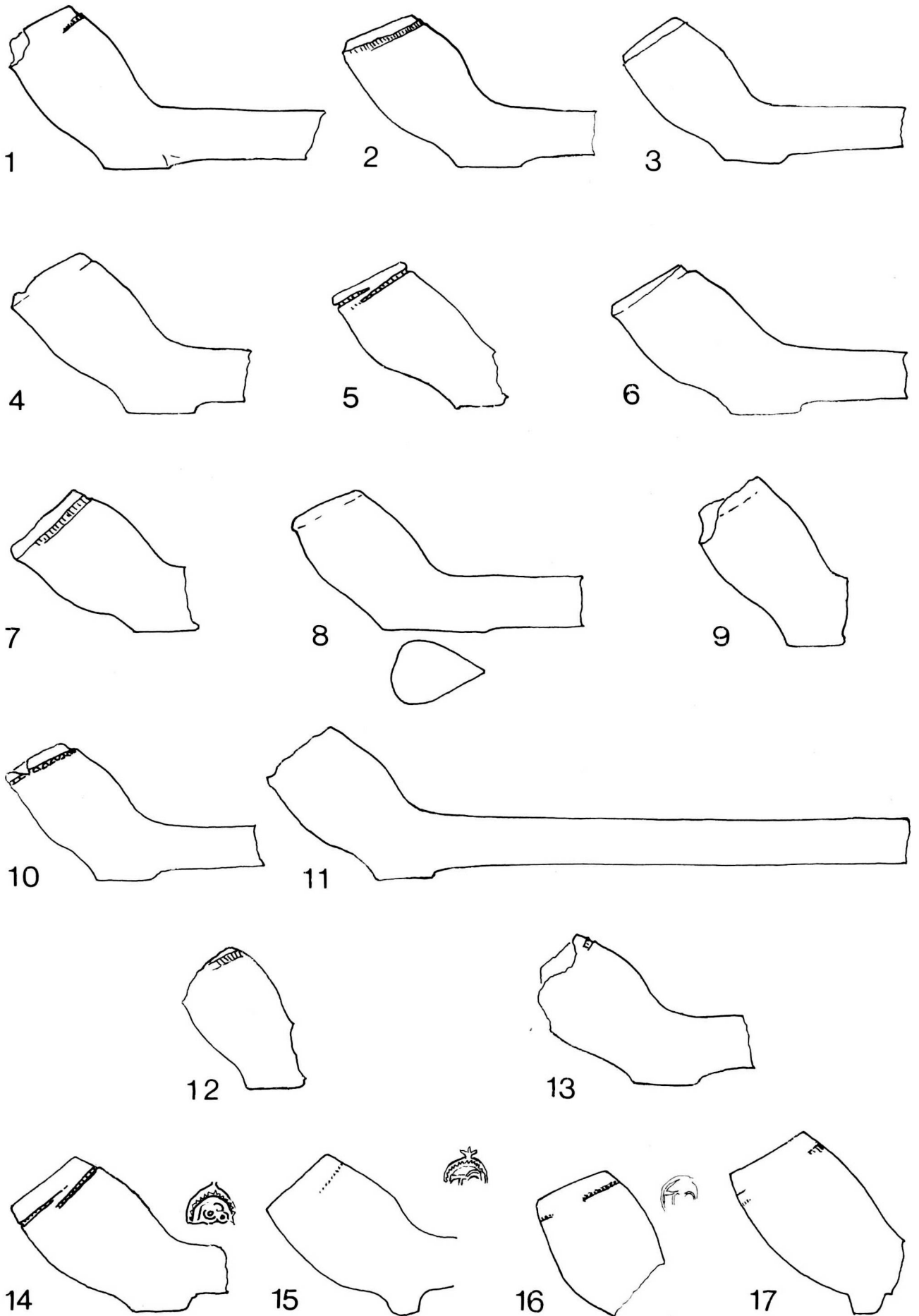


Fig. 31 Clay Pipes

30. Stem and spur fragment; fabric C; leaf moulding on the base of the bowl; two small concentric circles on either side of the spur; 5/64"; 3/2, SF 18.

The decoration suggests a northern product of 1850-1900.

31. Stem stamped '305 W. WHITE' on one side and 'GLASGOW' on the other; 5/64"; 3/1, SF 8.

The firm of William White and Sons was in production from 1805 until 1955 (Oswald 1975, 206) and reached a peak during the second half of the nineteenth century when, in 1891, their Bain St. works reached an output of 14,000 pipes per day (Hume 1974, 54-55). This example probably dates from around that period. White's products occur all over the British Isles and a similar find is already recorded from Chester (Morgan 1975, 62-63, no. 7).

DISCUSSION

The Origin and Chronology of the Fabrics

Without proper thin-sectioning it is impossible to distinguish clay sources except in the most generalised way. The three major types defined here do, however, seem to relate to technological and chronological developments and probable source areas.

Fabric A is very distinctive and occurs solely on poor quality hand-made bowls and stems. It has no parallel in the 'local' clays used in South Lancashire or the finer white firing clays which were in use in Chester by at least the time of Edward Evans (c. 1646-67) and Alexander Lanckton (c. 1657-67) and were probably imported from either North or South Devon. At Norton village fabric A appears to be localised both geographically and chronologically, almost all examples occurring in Area 4 in a series of pits which are early in the 17th century occupation sequence. It seems very likely that the pipes made in this fabric represent an early attempt at pipe-making during the period 1640 ± 10, either in South Lancashire or possibly somewhere closer to Norton itself.

Fabric B is found in pipes bearing South Lancashire marks probably exported from Rainford (cf. Berry 1963). Comparison with many more similar excavated examples from the Warrington Rectory site (cf. p. 102 below) confirms this fabric as being the normal material from which such pipes were produced. Given the same bowl forms, fabric and stamps it is an interesting comment on the inferior economic status of the Norton village inhabitants that their pipes are far more crudely finished and rarely polished. The chronological range of the fabric, based on stem-bores and bowl forms, would seem to be c. 1650-1730, thus providing a good parallel for Broseley where local clays were in use up to the mid-18th century (Atkinson 1975, 19-22).

Fabric C is almost entirely confined to pipes with smaller bore diameters and to later 18th and 19th century forms. It probably represents clay imported into the region from either Bideford (Culm Measure Clay) or South Devon ('Ball' Clay). It is impossible with a hand-lens to distinguish any further sub-divisions within this fabric type, though thin-sectioning might allow more positive estimates of source to be made. Fabric C first appears at Norton village in a stem and attached heel of 8/64" and a bowl fragment both from 5/16. These seem to be the remains of a finely made pipe of the period 1610-40, almost certainly imported from London, where a very pure white firing clay from Poole was already in use. The first regular occurrence of type C fabrics seems to be with the introduction of the elegant early 18th century spurred bowls and roller-stamped stems from Chester (e.g. nos. 19, 24-27), though products of the same period also occur in fabric B (e.g. no. 18), probably representing the continuing use of South Lancashire pipes on the site during this period. After the mid-18th century all the pipes are in fabric C or a variant of it.

Stem-bore analysis

There are too few pipe fragments for reliable dating of the excavated contexts by this method. Some minimal statements which need to be qualified further by the evidence of other associated finds and stratigraphic position, may however be attempted. Stem-bore size can be used to provide a reliable *terminus post quem* for the context (cf. Davey 1975, 34). For example, 3/28, with two stems of 4/64" is almost certainly post-1710, while 3/58, with a stem of 8/64", is almost certainly post-1620. With the larger groups the distribution of stem-bore sizes can give some clue both to the date range and the nature of the context itself. For example, 3/1, 3/2, 3/53, 10/1 and 10/2 are clearly mixed contexts, receiving pipe fragments from at least the mid-17th century onwards. A good contrast is provided by 4/31 which is the largest group of all. Here stem-bore is restricted to three sizes, with a peak over the middle value. The pipes are also all of the same fabric (A).

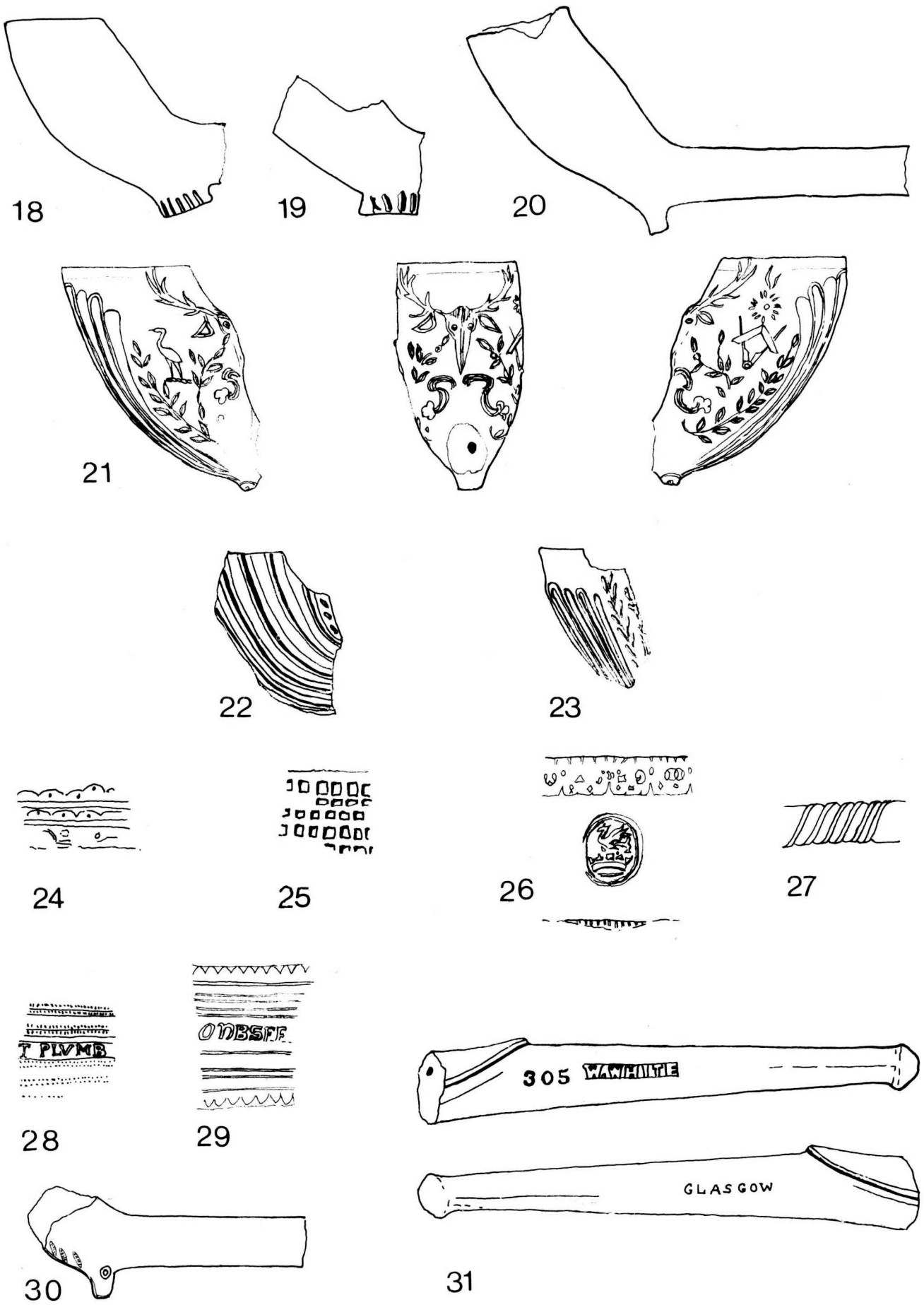


Fig. 32 Clay Pipes

The evidence of bowl form suggests a date range of 1640 ± 10 for this group. Crude stem-bore analysis would, on the other hand, give a value of 1667 or 1670 using Hanson's modification of Binford's formula (Oswald 1975, 93). Given two standard deviations of ±15 years neither date would be acceptable if the bowl forms are to be trusted. Closer study of all the fabric A finds from the site reveals that an average the bore as measured at the bowl is significantly smaller than when measured further down the stem. Of 13 fabric A stem-bores of 6/64" 7 are of bowls, while the single bowl of 8/64" (no. 11) has an unusually long stem and has been measured 91 mm from the bowl. If all the recorded stems of fabric A are taken together and the values for the bowls ignored, dates of 1654 ± 15 (1661 Hanson) would be achieved. Although these dates would then be acceptable in relation to the bowl typology, such results do suggest that the caution urged by Belcher and Jarrett (1971) in publishing the stem-bore evidence from West Welpington should also be extended to early 17th century locally made pipes in the north-west. The dates provided by bowl typology for the activity which produced the fabric A pipes are to be preferred. (NB it is notable that in the two instances cited above the Binford date is significantly nearer the bowl-form date than is Hanson's 'corrected' version.)

The Clay Pipes and Site Interpretation

Taking all the clay pipe evidence so far considered together with the contextual relationships established by excavation it is possible to suggest a post-1600 sequence for the deposition of clay pipes on the site which falls into three distinct phases.

Phase 1 1630-50

This phase is typified by A fabrics and early hand-made bowls and is confined to three or four pits from Areas 4 and 5 (Building Area B) which seem to predate the main 17th century occupation of the site:-

Pit 1 (4/24, 26, 34, 27, 42)

Pit 2 (4/30, 31, 41, 39, 51)

Pit 4/136

Pit 5/132 (This is cut by the Central Hollow way which appears to be an integral part of Phase 2).

83 pipe fragments securely belong to this Phase (78A, 4B, 1C fabrics).

Phase 2 1650-1720

This phase is dominated by B fabrics of South Lancashire type and consists of a variety of features directly or indirectly connected with buildings A and B:

Ditch A (3/58)

Ditch B (3/25; 4/15, 20, 21)

Main Road earliest levels (e.g. 1/28; 4/14, 245; 6/53; 10/8)

Central Hollow way (5/10)

Hollow way south of building C (5/7, 15, 16, 22)

Ditch (5/13)

Pits (1/21; 3/29; 3/115)

Post-hole (5/184)

26 pipe fragments belong to this phase (2A, 18B, 6C) but many more have obviously been redeposited in the general layers and in the silting of the features.

Phase 3 1720+

The contexts which probably belong to this phase, which is dominated by C fabrics, may be divided into two groups, representing either (A) continuing processes such as silting or ploughing or (B) distinct events such as the filling of a pond or laying of a land-drain.

(A) *General layers*: 1/1, 6; 3/1, 2, 3, 26, 30, 36, 55; 2/1, 2, 10; 4/1, 2, 3, 237; 5/1, 2, 18; 6/1; 7/1; 8/1, 7; 9/1, 4, 5; 10/1, 2, 3. A third of all pipes from the site (117) come from these layers. Many are clearly of a mixed character and include a wide range of stem-bore sizes, 19th century bowl fragments and redeposited fabric A and B pipes. This is probably the product of regular ploughing which has destroyed some of the 17th century occupation horizons and allowed the introduction of much later material.

Main Road (Upper levels): 1/20, 21, 28; 5/3, 25, 51; 10/7. There are unfortunately only 12 pipe fragments from these layers. The stem-bores present suggest that most of them could have been deposited by the mid-18th century—only the odd pipe (e.g. 10/7) pointing to a later period.

Above Cobbles: 3/27, 28, 53, 83; 6/4, 5. These appear to be almost entirely mixed deposits, 3/53 in particular providing bowls ranging from c1700 to c1840.

(B) *Well (Upper level):* 5/5. The one pipe fragment recovered probably belongs to the eighteenth century.

Pond: 8/30, 34, 37, 35, 36, 38, 49, 41, 43, 44, 33. The 20 pipe fragments from this feature include one decorated bowl (no. 21) and indicate a mid-late nineteenth century date for its filling.

Land-drains: 3/6, 32; 5/9; 8/4, 12. The latest fragments are probably nineteenth century in date, but most are redeposited from earlier levels.

Fence-posts: 3/10, 12, 14. A mixture of pipes in a modern feature, all presumably re-deposited.

NB Pits 8/14 and 8/28 and wall 8/48 all should belong to this phase, but the pipe evidence is slight.

The paucity of pipes from the period 1700-30 and the absence of any which clearly belong to the remainder of the eighteenth century suggest a reduction of occupation or the cessation of pipe smoking during the first two decades of the century followed by a period of relative quiet until early in the nineteenth century when there appears to have been considerable agricultural activity.

SUMMARY

The Norton village pipes provide a useful local sequence ranging from c 1640-1900 and include an important group of locally made products. Analysis of the fabrics, stem-bore measurements, bowl-forms and stamps indicates that South Lancashire was the main centre supplying the site during the second half of the seventeenth century and that Chester became an important source during the early years of the eighteenth. A consideration of the pipe evidence and the excavated contexts has allowed a tentative site sequence to be outlined, which is incorporated in the account of the site above.

The Norton village site has produced the first north-western sequence of stratified clay pipes from a controlled excavation employing modern techniques. Although many of the problems raised will require a far wider range of evidence from throughout the area for their resolution, the Norton material has provided a sound basis for future research.

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ACKNOWLEDGEMENTS

I am very grateful to the excavators for allowing me to study this most interesting group of finds, to Beryl Noake for answering many queries and for drawing the illustrated objects and to Adrian Oswald and Andrew White for useful information and comment.

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Chester
January 1977

The Society gratefully acknowledges a grant made by the Department of the Environment towards the cost of publishing this paper.