

10. Excavation of an Eighteenth Century Pottery in
Eccleston Street, Prescot (Site F).

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THE EXCAVATION

A rescue excavation was carried out in advance of the redevelopment of the town centre on a site between Kemble Street and Eccleston Street and to the west of Aspinall Street on waste ground behind the National Westminster Bank (Fig. 1.3). An initial area of c. 180 sq.m. was enlarged by 30 sq.m. with an extension to the east and by two trial trenches north and south of the main area.

A mechanical excavator removed the top overburden to a depth of 1.50m. Layer 1 consisting of brick rubble, concrete and sand, is post-1950 in date and is probably associated with the construction of the National Westminster Bank. Layer 2, a black loam containing much coal, brick and clinker was dumped in the late 19th century to level up the area when Aspinall Street was beginning to be developed. Underlying (2) and throughout the site was an orange brown sandy loam (46), which had developed above the undisturbed natural sands. The deposit was remarkably uniform, although there was a greater density of charcoal and less coal in the lower levels. Medieval sherds only were found in (46) whereas later artifacts were mixed in the upper deposits.

The site divided naturally into two zones. To the west there was little activity until the 19th century. A clinker yard surface (5), a rubbish pit dug to dispose of 20th century glass bottles and two shallow scoops probably tree root holes, constitute the only evidence for any disturbance to the area in post-medieval times. In the east there was a similar quiescent period until the 18th century when a pottery was built on the site (Fig. 10.1).

Only a small portion of the pottery works was uncovered and comprised various tanks or stores used in the preparation of the clays. All the tanks were appended onto the exterior walls of a workshop, of which only the west wall and the south corner wall were contained within the excavation. The limits of this building and of the pottery complex remain unknown but the probable extent of the works is discussed later.

A row of north-south fence posts delineate the west boundary of the pottery. Four square posts were sunk into square or rectangular pits (PH 1-4). The wood of the posts survived in all four instances. Although there was no indication of any buildings associated with the pottery to the west of this line, the kiln tips (7) had spilled through the fence,

confirming that the west plot was untenanted at this time.

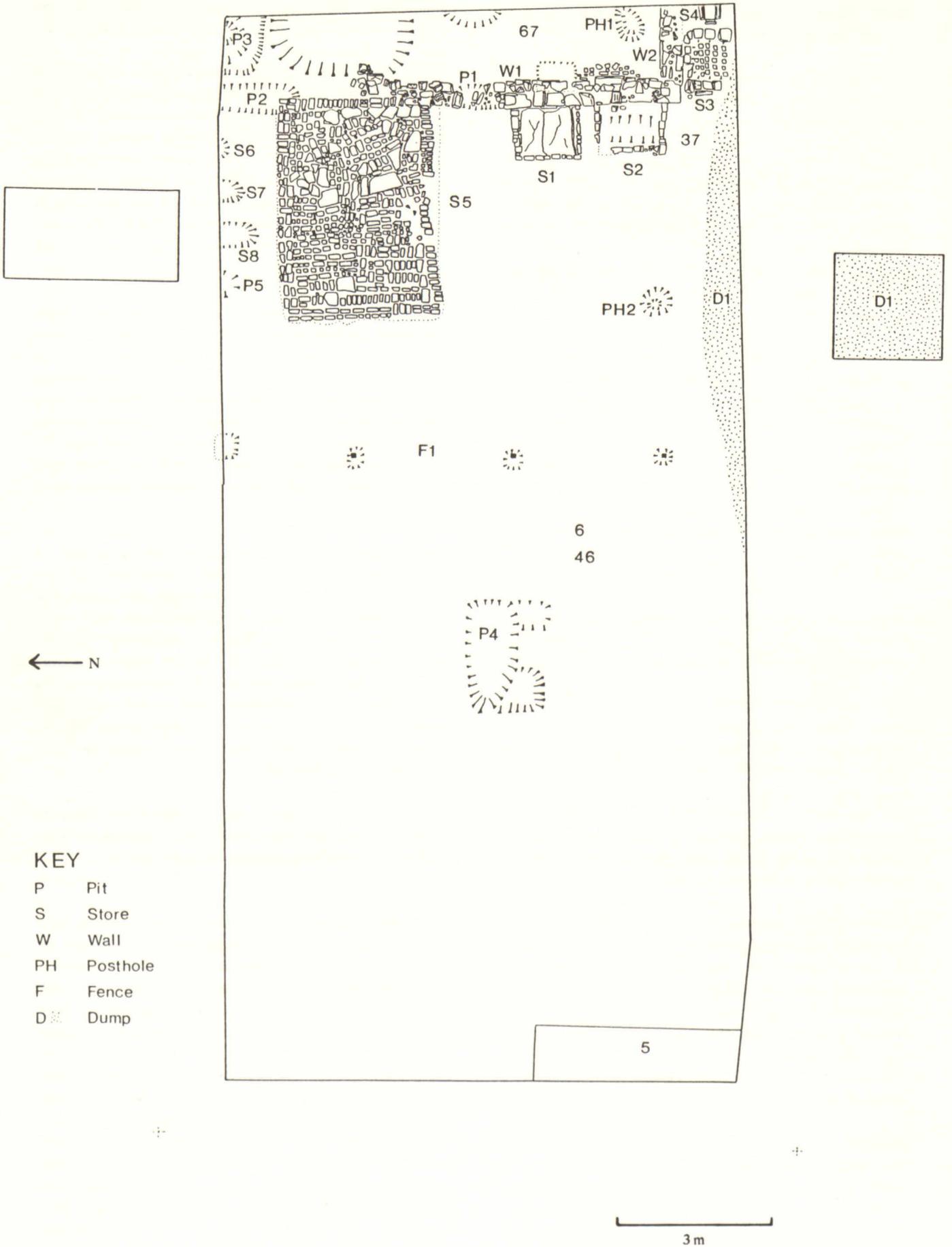
Store 1 was built with three brick walls on a sandstone slab floor. The fourth wall was formed by the north-south sandstone wall of the workshop. The walls were one brick wide, unmortared and can only be described as jerry-built. The front wall had been partially demolished. Three well laid sandstone slabs made up the floor, with the brick walls sitting directly on them. The store was filled with a red gritty clay, the colour of which had stained the workshop wall.

Store 2 was set adjacent to Store 1, but not using its walls. It was built in a similar manner, though larger in size, with brick walls on a sandstone slab floor. Its front wall had largely been demolished. In this case the slab floor had also been dug and levered out, leaving a V-shaped depression in the subsoil. The store minus its floor had subsequently been reused and held a clay, varying in colour from white to yellow, which had also coloured the workshop wall.

Store 3, unlike its two western counterparts, was a much more substantial and solid construction. It was smaller than the other two and built with uncoursed stone walls, to a height of three blocks laid on a brick floor. This store did not utilise the exterior wall in its construction, instead its north wall was built up against the back of the workshop. It was not demolished, probably because of its superior method of construction. A white clay similar to that in Store 2 was contained within Store 3 and was piled up above the level of the walls.

Immediately to its east, was a small box, Store 4, sunk into a tailor-made pit and constructed with edge-set sandstone buffs, lying directly on the subsoil.

The dimensions of Store 5 infer a use different from that of Stores 1-4. This store again dispensed with the need for a fourth wall and utilized the back wall of the pottery workshop. The three remaining walls, brick-built in English Garden bond, survived in part to their full height. These retaining walls stood directly on a well-laid brick and sandstone slab floor (Fig. 10.2). Many of the floor setts were heavily fragmented, suggesting two points: first that there was heavy wear on the floor and a second that the sandstone slabs represent patching and repair to the original brick surface. The floor dropped down towards the east, although this distortion is not assumed to be a deliberate policy, but was caused by continual use. The floor, although underlying three of the walls, butted up against the workshop wall. This repeated relationship between



10.1 General plan, Eccleston Street Pottery site

wall and store argues for the later installation of the tanks against a pre-existing building.

A thin layer of yellow clay (38) extended over most of the floor and up the walls and may have been used as a bonding or lining to the store. Alternatively, it could represent the remains of a removed clay deposit for use in the manufacture of pottery. Although dissimilar from any other clay found on the site, this may result from the refining process to which it had been subjected.

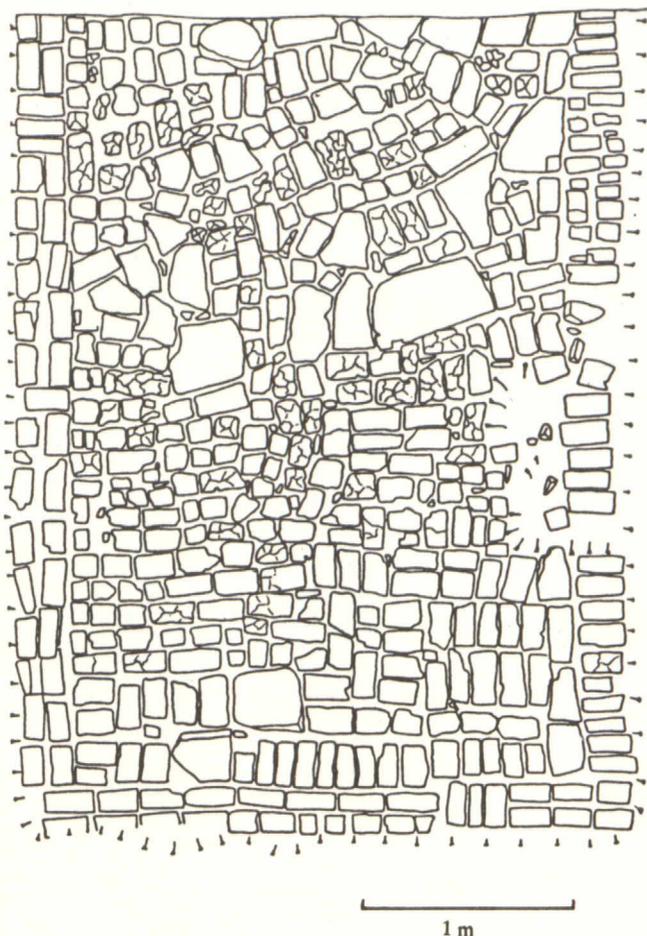
Like the other stores, Store 5 had been made unusable. This defacement consisted of the partial demolition of the walls and the dumping inside of large quantities of demolition rubble. This demolition (8) comprised burnt clays, numerous bricks and half-bricks and large quantities of kiln furniture and its associated waster pots and saggars, deriving from pottery production elsewhere on the site.

Three oval pits, and a putative fourth, all of which partially underlay the north section, were set in a line at a slight angle to Store 5. Although none was

completely excavated, all were cut to a similar format, with 2 vertical long sides and 2 sloping ends and a rounded bottom. The excavation of these pits by the potters followed a series of guidelines, and this uniformity of execution argues for an identical function. The likeliest explanation for these pits is that they were used as underground stores for the clay, whereby the clay was formed into balls and rolled down the ramp into the pit until it was required. The moist conditions of the soil and a wooden lid over the top ensured that the clay remained in a plastic state. The pits were filled with varying quantities of clinker, charcoal and clay. The similarities in the fills indicate that all the pits were filled in at the same time and, indirectly, that all were in use together.

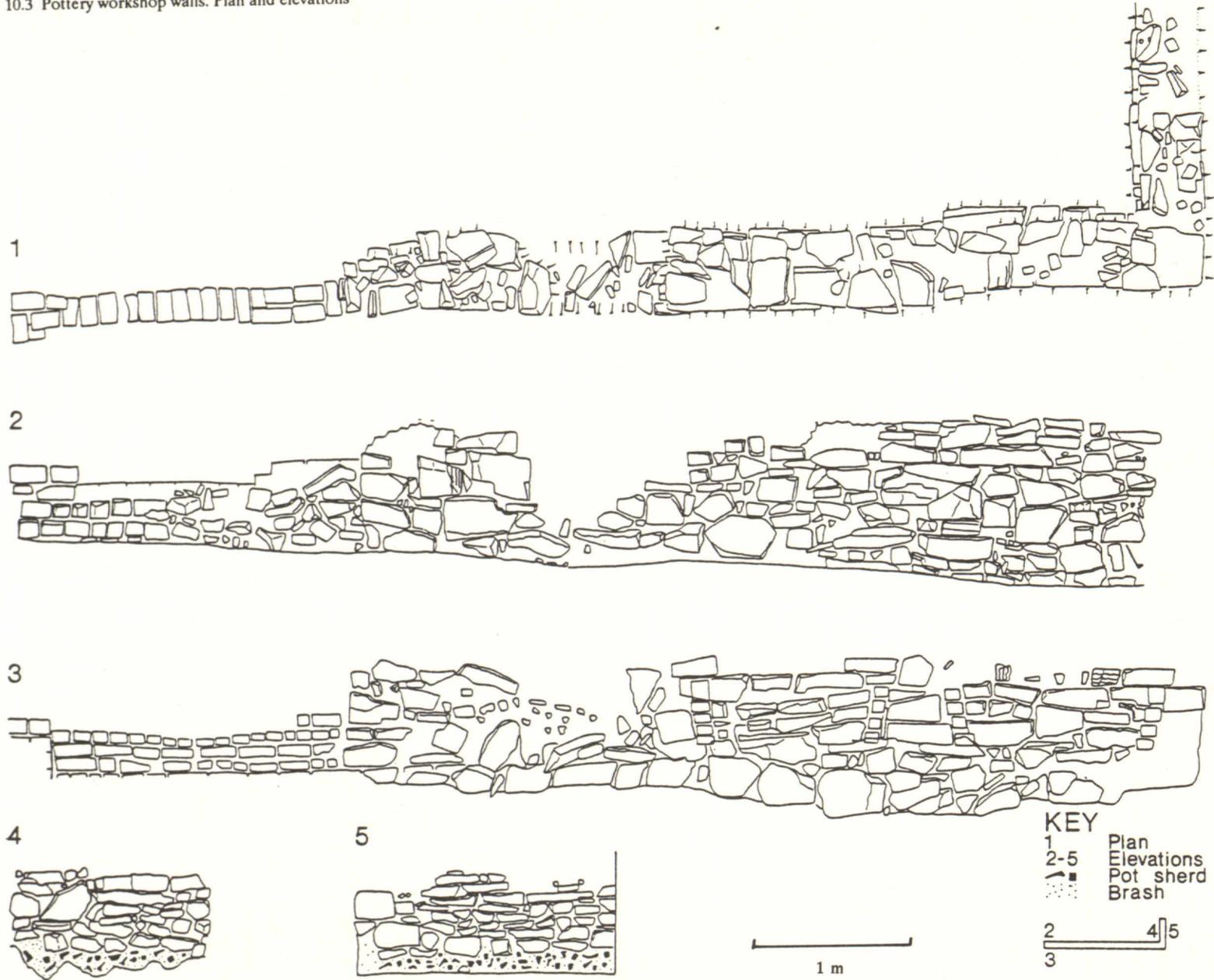
The workshop walls were built in several units (Fig. 10.3). The earliest section housing Stores 1 and 2 and ending with a straight face c. 1m beyond the robber trench (52) was also the best preserved. It was constructed in dry stone walling, using thin yellow sandstone buffs and clay was occasionally used for pointing in its lowest courses. The wall was on the narrow side, but the flat horizontal top represented its full height. The second section to be built in dry stone was the east-west section housing stores 3 and 4, which was butt-jointed against the north-south wall. Both the early and later wall had foundation trenches dug marginally bigger than the intended wall, but where the later wall differed was in the use of pottery wasters and saggars in its foundations. This method of construction was used under the section of brick wall belonging to Store 5, and was observed by Davey and Philpott in their sample quadrat 14 (Philpott and Davey 1984).

At some time it was decided to enlarge the premises by extending the wall northwards. A continuous foundation trench was dug, following the line of the existing wall, part of which was subsequently backfilled when it was decided to reduce the scale of the operation. The section next to the original end of the sandstone wall continued the tradition of using sandstone buffs to tie in the back wall of Store 5. The rest of the store wall dispensed with this method and replaced it with a brick construction, whose foundations cut through and used the levelling up material (54). The use of brick in the retaining wall may have had a practical basis. On the inside of the wall and just below its top were the remains of a brick floor, bonded into the wall itself. The brick floor was seemingly only present in this area, but its reconstruction remains problematic. A small, semi-circular, 2-course brick plinth lay athwart the original sandstone wall at its southern end, with no attempt to key the two together. These two structures, contemporary with each other, if not their wall sections, and found at



10.2 Plan of store 5

10.3 Pottery workshop walls. Plan and elevations



the same relative depth, may have had analogous functions, acting as internal buttresses or standing as the equivalent of stone or timber post-pads. The sandstone wall had been robbed out in its central section and then roughly backfilled with clay and the unwanted stone, saggars and waster pots. (P1, 52) The wall was visible as a dwarf wall from the yard where the stores were, but was invisible inside, where it acted as a typical foundation wall whose top was flush with the floor. This means that the workshop was designed on two levels, with the stores being at the lower level, and the interior wall at the higher level. The building was deliberately sited to take advantage of the rising ground, so that minimum effort was involved in levelling up the interior. The floor, a burnt red clay, was largely complete at the south end of the building, but was found in isolated patches in the north, where it had slumped over the hardcore (55) which here constituted the floor foundation. This deposit again utilised the waste materials from the kiln, recognising that their porous qualities facilitated drainage. The presence of kiln waste sealed by the floor implies that the floor was a successor to other floors, laid at some time after pottery production had begun on site.

A rectangular pit, below a layer of demolition material was filled with saggars and waste pots. It is unclear whether it dates to the abandonment of the pottery or to its usage. In view of the content of other pits and foundation trenches, the later case is considered more likely.

The absence of such structures as drying racks, workbenches, cisterns etc. must directly equate with the proportion of the pottery uncovered, but also suggests that the design and the layout of the works was planned, whereby each process involved, such as shaping and throwing the vessels, applying slips and glazes, and adding handles or other decorations, was carried out in separate zones within the pottery.

The frequent use of kiln waste as a wall foundation, as hardcore or as levelling up material implies that although the building was fairly shortlived as a pottery, it was continuously being repaired and altered during its lifetime. The end of the pottery is seen with the destruction of many of the structures and with a layer of demolition material spread over the inside of the building.

The floor and its hardcore surface overlay an orange brown loamy sand, which is viewed as the same deposit as that found outside the building. In one area only, both within and without the workshop a dark brown loam (37, 67) with large quantities of charcoal, developed above the loamy sands. This deposit, containing a limited range of forms dating

to the 17th century, is significant because it provides a *terminus ante quem* for the beginning of pottery production on site.

Two post holes (PH1, PH2) remain unallocated and predate the pottery. The post holes measured 5.00m centre to centre and both posts of c. 0.20m scantling had been pulled out. There is some evidence, based on the morphology and alignment of Pits 3 and 5, (see plan) that these pits formed the end post holes to this structure, giving a rectangular building of c. 5.00m x 8.00m.

DISCUSSION

Surprisingly, few potteries have been totally excavated. Most work has concentrated on the kilns with little attention given to the sheds and workshops. The site of a kiln is easily recognisable, by survey or by excavation, usually identified by a high degree of burning, waster pots and kiln furniture, concentrated in one limited area. With the identification of the location of the kiln the excavation attempts to resolve the two immediate questions that are asked: namely by what means and at what date were the pots fired. The imbalance in the evidence means that all the remaining processes involved in the making of a clay vessel remain largely unknown.

The structure of Stores 1 and 2 precludes their use as soaking pits, as they were neither well made nor watertight. The stores were so similar in their appearance and size that they must have been used for the same purpose, that is, for storing the raw clay, where presumably the only requirements of the store was to contain the clay on a temporary basis. The clay box at the Albion Pottery, Stoke-on-Trent, was placed on the floor and was of an equivalent size to Stores 1 and 2 (Celoria and Kelly 1973, 52, 54, Fig. nos. 3, 5). Store 3 was in a different class and resembled structures at Pinfold Lane, Site 2, Buckley, (McNeil 1985) which were built as cists, with edge set stones on a slab floor and the whole tank sunk in a pit. It is feasible that Store 3 was used as a soaking pit, but the evidence is equivocal. The dimensions and precise engineering of Store 4 argues for a specialised function. As a container it was not suitable for large quantities of clay and could only be used to keep some material that was needed rarely and in small quantities such as sand or grog. A handful of sand would be sufficient to act as a separating agent between pots and the kiln floor. Grog was often added as filler to the raw clay, but only small amounts were needed at any one time.

The key to the understanding of Store 5 is in its floor which, as has been noted, was heavily worn and

patched. The description of the use of the brick floor at the Verwood Potteries, Dorset (Young 1979) is valid for Store 5. Young describes how the clay was spread on the floor, which was previously coated with a thin layer of sand. The clay was then worked by treading it with bare feet. This incorporated the sand into the clay, removed any impurities and made it uniformly plastic. Next the clay was cut into strips and rolled up. This process of sanding, treading and rolling was repeated three times at the Verwood Potteries to ensure a correct degree of tempering and an absolutely even texture. The three Stores 6-8 located immediately outside Store 5 were suitable as temporary containers for the balls of clay between any of these refining stages.

A contemporary illustration of treading clay is depicted on the porcelain jug presented to Thomas Spencer, a Liverpool potter, who subsequently moved to Prescott. The view is a representation of his works where sugar loaf moulds and industrial pots were manufactured (Hillis 1985, 2).

Store 5 also fits the description of a sunning pan where the raw clay was left to weather for sometime. At the Longton Hall Porcelain factory (Tait and Cherry 1978) a brick-built rectangular chamber had almost identical proportions to the sunning pan at Prescott, although in this case there was a central fire box. The chamber is termed a smoke/drying house. There was no indication of a fire box or central hearth at Prescott, although some of the bricks were displaced along the southern edge, and may have been removed when a portable brazier was inserted. Although the rectangular store was probably custom-built for a specific function, in practice it was probably used for numerous refining processes, such as a sunning pan, a puddling floor and a drying room.

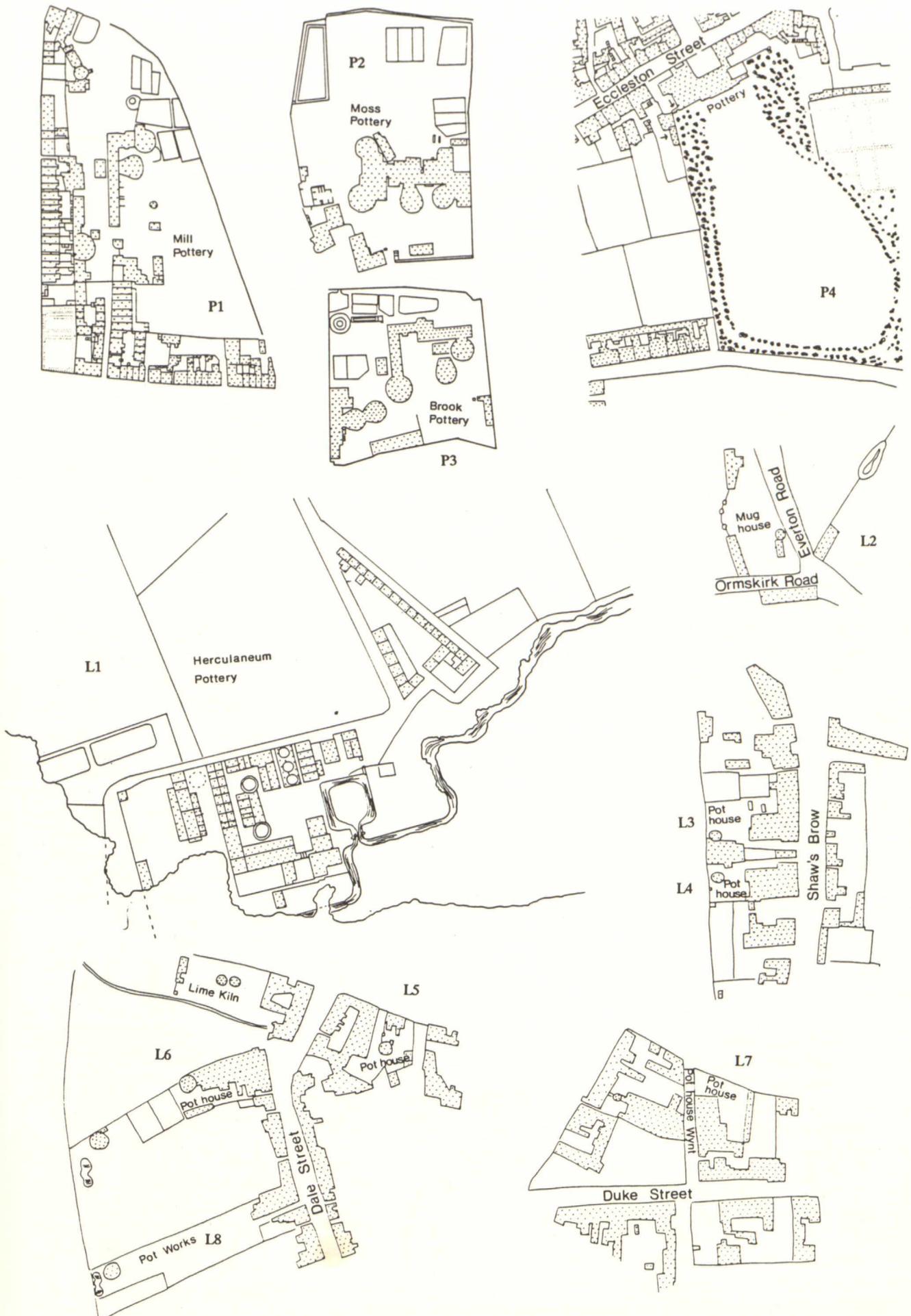
The dwarf walls were not capable of supporting a two storey building. Their function was to act as a base for vertical uprights, spaced at intervals of c. 2-2.5m. This means that the building was never intended to be more than a single storey open shed. Few sheds and outbuildings have been excavated, but there are valid comparisons to be made with these few. At the Verwood Potteries there are both single and two storey buildings, both being long and narrow. In the two storey buildings, the wares were made on the ground floor and dried and stored before firing on the first floor (Young 1979). Wind baffles, slight brick walls, protected the 17th century kiln at Woolwich from the worst weather (Pryor and Blockley 1978). A rectangular building, c. 9 x 5m was excavated at the 18th century pottery at Donyatt, Somerset (Moorhouse 1971, 215). The standing sheds at Buckley, of a variety of dates from 18th-20th century, are all single storeyed (Davey 1975).

The Documentary and Map Evidence

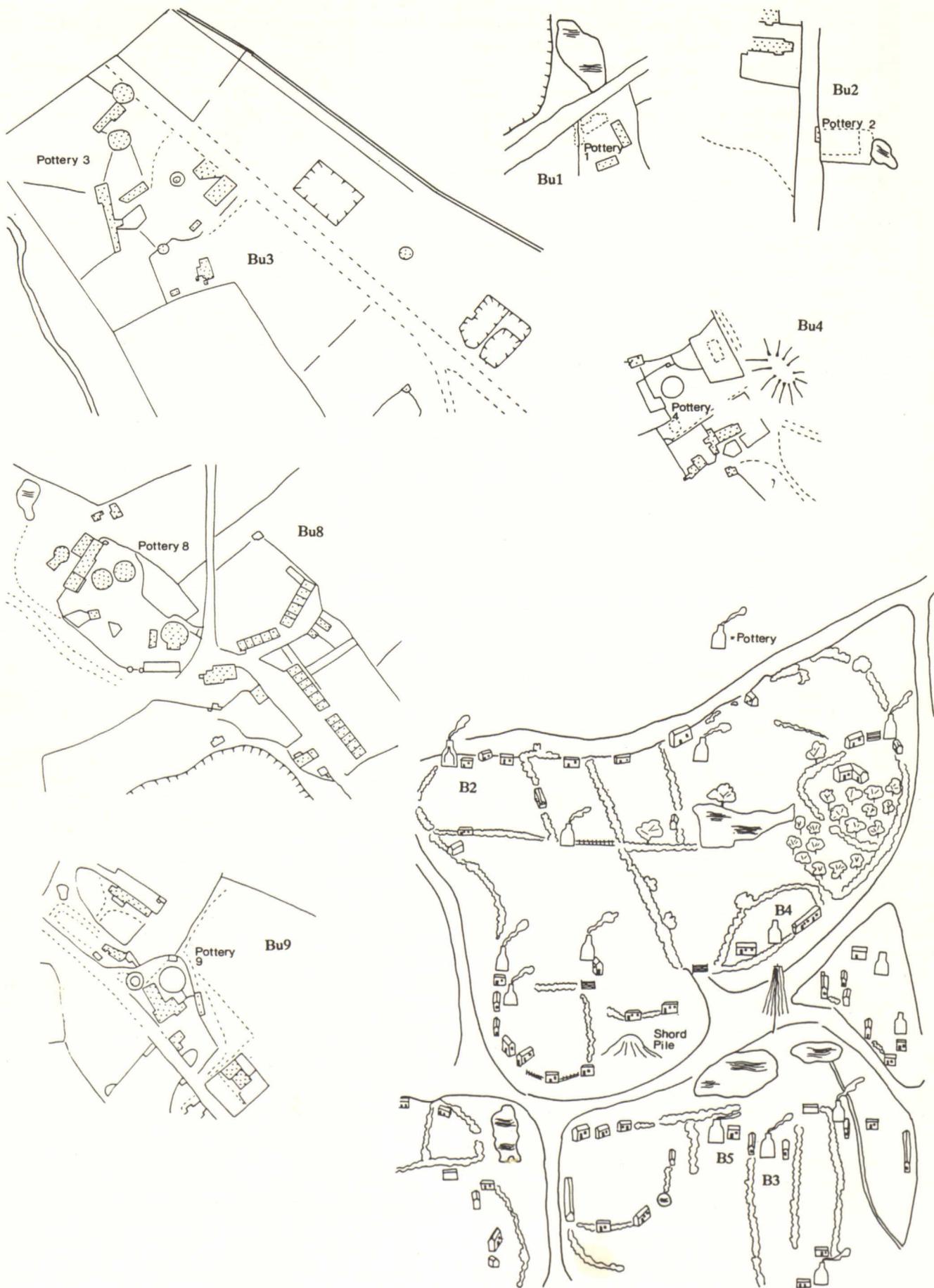
Six Prescott potters had wills registered at Chester between 1734 and 1768. These are as follows:- Peter Sephton, claypotter, 1734; James Pye, claypotter, 1743; William Ashcroft, potter, 1745; James Barlow, claypotter, 1762; Thomas Wheatcroft, potter, 1767; Edward Whitlow, potter, 1768. Two of these potters are also mentioned in the Manor Court Rolls: in 1742 John Sefton is described as "son of Peter Sefton, late of Prescott aforesaid, claypotter, deceased" and in 1792 James Barlow is recorded in a surrender of a messuage in Prescott recently purchased by him and rebuilt as "late of Prescott, clay potter". The Court Rolls also mention other potters. In 1743 Lawrence Kay of Prescott "claypotter" is described as living in Eccleston Street and a second surrender of 1756 mentions that he previously owned a "mugworks" there. This document refers to mug ovens and other buildings lying on the North side of Eccleston Street and to a passage called Gateway Road which led from the street to the mug oven and buildings which "are walled off from the other lands".

Another "clay potter", Henry Woods, is mentioned in a surrender of 1768. In this document a messuage, dwelling house and tenement are described as being "on the westside of a certain New Street Lane, an opening within Prescott aforesaid, leading from the Hillock Lane (now Kemble Street) aforesaid to the dwelling house of Henry Woods Claypotter in Prescott, aforesaid, then in the possession or occupation of James Curry". Whilst Lawrence Kay's pottery is very clearly described as being north of Eccleston Street - and it is difficult to imagine that in a legal document of this kind such information would be inaccurate, as it would have been immediately contested - that of Henry Woods lies to the west of Aspinall Street (New Street Lane) and to the north of Kemble Street, in an area of land called "Bonds Acre". Given that the area of Prescott between Kemble Street and Eccleston Street was already occupied by the copyholders by the late 16th century, it seems likely that the pottery in question lay in the area of land immediately to the west of Aspinall Street, which, at the time of the Tithe Map, appears to have reverted to some kind of parkland or open space, not used for agriculture. If this is the case, then the pottery excavated in 1985 is most likely to have been that of Henry Woods or his successors on the site.

The 1848 map shows a complex of buildings south of Eccleston Street, bounded by a park wall, which cannot be domestic in character. Almost certainly the buildings depicted represent the 18th century pottery uncovered in the 1985 excavation. Furthermore the position of the excavated wall can be pinpointed and is the southern-most shed shown on the 1848 map. The robbed wall in sample hole 14



10.4 Prescot potteries P1-P4. Liverpool potteries L1-L8. Scale: 1: 2, 750



10.5 Buckley Potteries Bu1-Bu4, Bu8 and Bu9. Burslem Potteries B2-B5. Scale: 1:2,750

excavated by Davey and Philpott in 1984 is the small west cross section backing onto the garden wall. Both walls are indicated by an arrow in Figure 10.4, P4. The alleyway still functions as a passageway from Eccleston Street, although it is now covered. There is no indication of the kilns on the 1848 map but these were probably demolished with the abandonment of the works.

It is also interesting to observe how the potter was forced to expand around the garden/parkland (36a on the 1847 Tithe map for Prescot) instead of directly south from the main road as might be expected. The oblique line of the park boundary has survived to form the pottery boundary between nos. 6 and 8 Aspinall Street whilst the core of the north-south park wall has been incorporated into the boundary wall behind nos. 8 - 18 Aspinall Street (Davey 1978, 25).

The nature and status of the site

It should be possible to correlate the area covered by a pottery with the type of manufacture. The plans of a number of potteries were examined and have been redrawn at a common scale in Figs 10.4 and 10.5. As far as circumstances permitted, local sites were selected, although some comparison has been made with the Staffordshire and Buckley potteries.

In Prescot there are no reliable 18th century maps of the town. There is, however, one of the few early OS maps of towns which were produced at an experimental large scale of 1:1,056. On the 1848 OS map the 19th century Brook, Mill and Moss Potteries are drawn with great detail, showing the number of kilns, blunging pits, sunning pans and workshops (Fig. 10.4, P1-3, L1; Davey 1978a, 56).

Liverpool has the advantage over all the neighbouring areas in that a large scale map 40 yards to the inch was drawn up by George Perry in 1769. The work is commensurate with the later OS maps in attention to detail and is taken to be accurate. Several premises are shown as potteries with kilns clearly visible (Fig. 10.4, L2-L8). The Liverpool potteries have been well researched and documented so that now many of the potters have been identified (Mayer 1855; Smith 1970; Hollis 1985). The 1800 map of the Herculaneum pottery (Fig. 10.4, L1; Smith 1970) was consulted and is included to show the 19th century development and diversification of the industry.

The plans of the Buckley potteries are reproduced from a directory of all known 18th and 19th century sites, based on the 25" 1871 OS sheet, but updated where necessary (Davey 1975). The numbers allocated

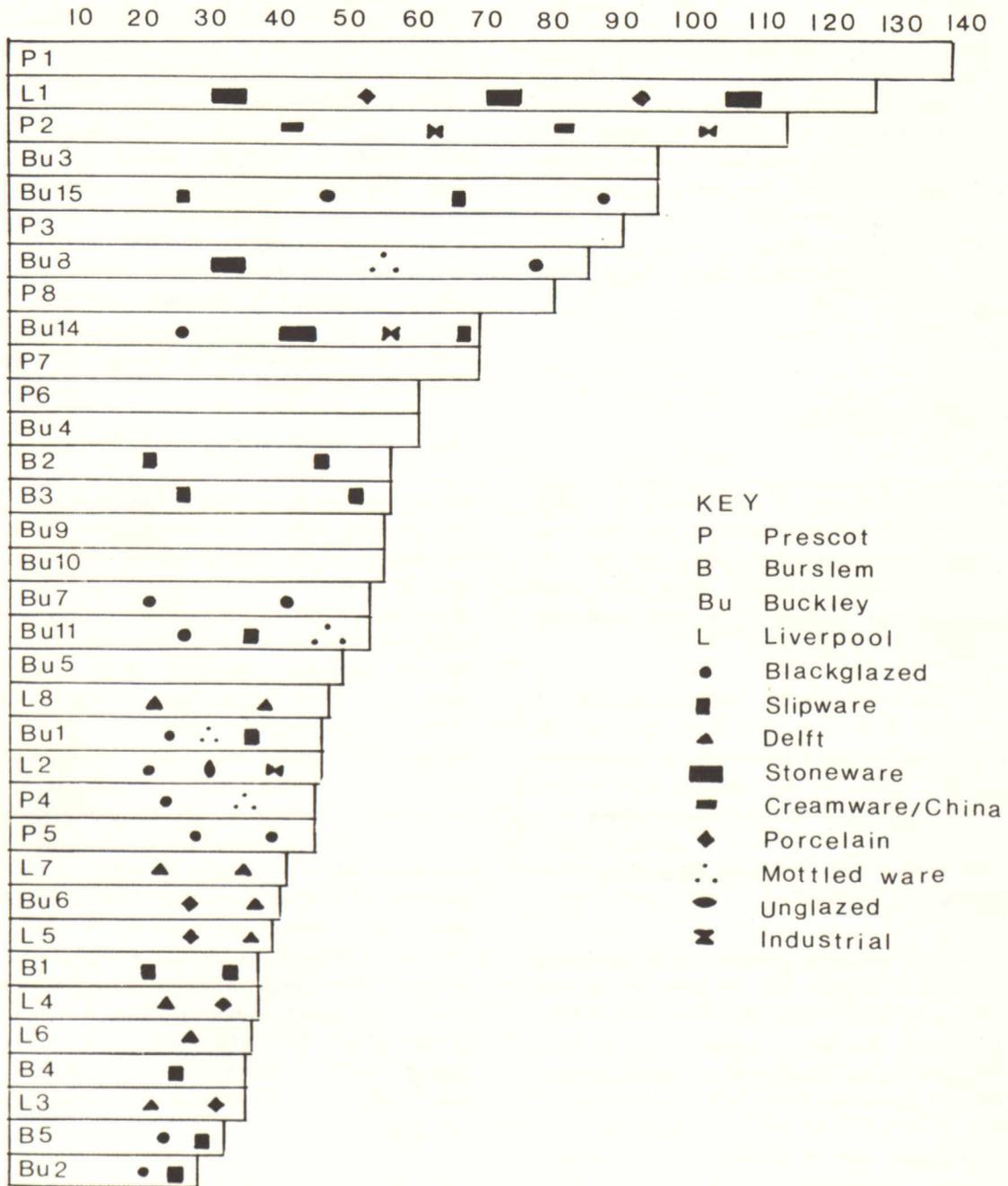
there have been retained (Fig. 10.5, Bu1-Bu4, Bu8, Bu9).

In the case of the Staffordshire Potteries two estate maps of 1720 and 1750 were consulted (cf. Hawke-Smith 1986, 76), the latter being reproduced in a simplified form in Figure 10.5, B2-B5 ("Wood's Map"; Wedgwood 1908, opposite 121). Although the topography of Burslem can be recognised, the maps were never designed to be the work of surveyors, but were pictorial representations of the number of inhabitants and their trades.

Many potteries throughout Britain had small multi-flued kilns with a number of fireboxes some 3-4m in diameter which were regularly demolished and rebuilt during their lifetime. As firing developed into a more organised and controlled affair, the primitive kilns were replaced by permanent and more substantial ones like the bottle kilns found in Staffordshire or like those indicated for the Brook, Mill and Moss potteries on the OS map.

Figure 10.6 represents the relative areas of these 33 potteries. The measurements are based on the area of the curtilage in square metres and not on the size of the individual sheds. The number given at the top of the diagram is the square root of that area. There is a clear distinction between the large 19th century industrial and fully mechanized complexes and the 18th/19th century urban/rural potters, with the 19th century businesses occupying areas between 8,100 sq.m. and 19,600 sq.m., and the family concerns occupying substantially smaller plots ranging between 900 sq.m. at the bottom end and 3600 sq.m., at the top. Within this latter group it is difficult to isolate any sub-group on size criteria alone. If some consideration is given to the type of wares manufactured, it is observable that the six largest potteries of the twenty-two (27%) specialised in the production of one or two wares at the most, whereas the eight medium-sized concerns manufactured a more comprehensive range of wares. In the final eight small scale potteries the emphasis is again on the production of a limited number of wares, with Delft, slipware and black-glazed earthenware being individually favoured. The pottery excavated in 1985 falls within this sub-group.

Like many crafts, pottery production has developed into a highly organised and structured industry, commencing with the small scale potter of the medieval and early post-medieval periods, producing wares solely for the personal and domestic markets, through to the stage of the urban potter, producing high quality wares, as for instance at the slipware potteries in Burslem, Staffordshire where there was a dense concentration of skilled potters in the 18th century (cf. Wedgwood 1913, maps opposite pages 107,



10.6 Diagram showing relative sizes of 18th and 19th century potteries

131). The Herculeum Pottery, Liverpool is a good example of the final development of the industrial pottery at the end of the 18th to the beginning of the 19th centuries, where the sheds are built as stream-lined factory units, as befitting an industry concerned with mass production, diversification and marketing (Smith 1970, 94-5).

The decline in the popularity of pewter as table wares between 1650 and 1750 encouraged the emergence of the urban pottery, producing high quality decorative items, that were both attractive to handle and were more hygienic with their smooth easily cleaned surfaces. This change in the pottery industry has been well described by Peter Brears (1971) who discusses the emergence and diffusion of the different types of potteries and their economic position. At the same time there was a corresponding and perhaps unexpected rise in a totally new class of potter, the rural agricultural potter, who catered for the growing needs of a semi-industrial and urban population by producing cheap lead glazed earthenwares, suitable for use in the kitchen in the preparation of food and drink. In the north-west, tankards, jugs, storage vessels and pancheons form the bulk of these wares. The pottery in Eccleston Street falls into this category, being neither an urban pottery in the true sense with its large and expanding markets, nor the family concern typical of the late medieval period, with its emphasis on local consumption.

POTTERY

Black-glazed Pottery

Black-glazed earthenwares represent the most common type excavated and can be divided into coarse wares (large utilitarian vessels) and fine wares, generally for table use.

Fabric types fall into three main categories with further subdivisions depending upon the size and frequency of inclusion.

In general, coarser wares were produced from less refined clays, although there were exceptions. Whilst the majority of larger vessels had substantial white clay laminations with moderate to abundant inclusions ranging from fine to very coarse in size (16, 112), there were nevertheless, those with only moderate laminations (32, 10) within the same fabric groupings. Because the site is a pottery, the finds do not represent a typical domestic assemblage, but are instead the pottery rejected from the firing. The majority of sherds are therefore seconds. Of

these, 1,232 sherds were coarse wares and only 508 sherds were fine wares. Philpott has commented on the general decline in black-glazed fine wares in the 18th century and the corresponding rise in mottled and stonewares (Philpott 1985, 86). It is worth noting, however, that coarse and fine wares were fired under different conditions; the coarse wares probably being fired in an open kiln and the fine wares generally being fired in saggars, so the likelihood of defects, seconds and waster pots was greater with the coarsewares and this may partially explain the high number of these sherds.

Tables showing total forms excavated are as follows:

Coarse wares:

<u>Form</u>	<u>Number of Sherds</u>	<u>Estimated Vessel Equiv.</u>
Storage vessel	710	114
Pancheon	133	25
Bowl	94	28
Jug	12	8
Wide-necked dish	143	7
Large-handled vessel	4	1
Globular Jar	28	3
Tankard	3	2
Plate	1	1
Beaker	1	1
Candle holder	5	1
Test Piece	1	1
Syrup collecting jar	1	1
Unrecognized	142	--
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	1,278	193

Fine wares:

<u>Form</u>	<u>Number of Sherds</u>	<u>Estimated Vessel Equiv.</u>
Bowl	245	31
Jug	84	12
Globular jar	6	2
Beaker	12	4
Tankard	88	17
Posset Pot	39	8
Wide-necked dish	23	11
Pedestal dish	2	1
Cup	12	5
Plate	2	2
Tyg	1	1
Large-handled vessel	46	2
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	560	96

Defects tended to differ between coarse wares and fine wares: this being largely due to firing technology for the different wares (see kiln report). The most common fine ware defects were caused by firing in upright positions, which resulted in vitrification of the internal base (44, 51). Furthermore, pooling to one side of internal bases was a common feature (51, 37, 38) caused by slight tilting of vessels within the saggars in order to prevent adhering. Many sherds had fairly thick external runs of glaze (36, 41). Again, coarse ware defects are largely related to the firing position, the stacking method and positioning in the kiln. These wares, unlike fine wares, were probably placed in the open kiln, hence greater problems occurred with temperature control, resulting in overfiring (14, 21, 29). Far more of the coarser wares showed evidence of reduction - due undoubtedly to thicker vessel walls and more open textured fabrics, (68, 33, 23, 16). Separator and stilt marks are also regarded as features likely to make a vessel fall into the classification of "seconds". These features were more evident on coarse as opposed to fine wares.

Much separator evidence, on uppermost rim areas, amounts to no more than lighter coloured patches than the surrounding areas. Also, many vessels were stacked rim to rim which has resulted in glaze running from inverted vessels, pooling and vitrifying around separators (13, 10, 1, 30). In some instances, separators have adhered to bases (22, 21). Stilt marks were mainly found on pancheon sherds with pooling of glaze around areas where stilts have been situated (28). This feature is, however, not exclusive to pancheon forms and a few were found on storage vessel bases (26), a stilt mark was found on the rim of a storage vessel from which it is suggested it had been fired in an inverted position (12). Separation fabric was used occasionally when firing fine wares in saggars (43, 40, 37) presumably just sufficient to tilt a vessel slightly and represent the potter's attempts to prevent fineware vessels adhering to saggars given that running glaze was an ever-present possibility.

In all instances, the thickness of the glaze determined the overall quality of the finished product. The majority of coarse wares were found to be unevenly glazed, often with a gritty texture (12, 19) caused undoubtedly by a combination of thin glaze mix and poor application. Where glazes are thickly applied, finishes were found to vary from glossy to metallic lustre (13, 31) although fewer coarse wares displayed this feature. Finer wares tended to have a more consistent and uniform glaze application, some with fine metallic-lustrous finishes (38, 43, 37). Even where "grittiness" is evident, the lustre of the glaze has not been affected to any great extent (36, 68, 56).

Mottled and Self-Coloured Wares

Six main fabrics have been identified at Prescott (Philpott and Davey, 1984), and five of these have been found in the recent excavations. Descriptions follow those of Philpott and Davey and are correlated where possible.

1. Pure hard greyish buff fabric with few small dark inclusions up to 0.2mm, few reddish brown inclusions up to 0.4mm and a few white clay inclusions up to 0.5mm. Used for thin walled vessels, tankards and cups. Philpott and Davey Fabric 1.

2. Hard greenish grey buff fabric, often overfired; a few small mica inclusions up to 0.2mm, a few dark inclusions up to 1mm, a few quartz inclusions up to 0.5mm and some white clay up to 0.3mm. Philpott and Davey Fabric 2.

3. Poorly mixed buff pink body with some banding of clays. Few red grog inclusions up to 1mm, few white clay inclusions up to 2mm and few quartz up to 0.5mm. Used for large bowls. Philpott and Davey Fabric 4.

4. Buff pink with slight banding of clays. Many white inclusions of white clay up to 3mm, some reddish brown grog up to 3mm and few quartz up to 1mm, used for large bowls and chamber pots. Philpott and Davey Fabric 5.

5. Very coarse pinkish orange fabric. Many white clay inclusions up to 3mm, many quartz up to 1.5mm and some smaller dark inclusions up to 0.05mm. Used for larger bowls. Philpott and Davey Fabric 6.

A range of forms is represented at Prescott. Large wide-mouthed bowls and dishes are the most common. One chamber pot was also found. Amongst the fine wares, tankards are the most common type, with posset cups, beakers and skillets also represented. The majority of coarse wares were manufactured locally and probably on site; most of these are seconds, with some defects in the glazing, but there are also a few badly warped bowls and dishes, which are seen as waster pots. The fine wares are not so easily attributed to this kiln, although they appear to be manufactured from local clays. The few pieces of kiln furniture and equipment which show evidence for mottled ware production indicate that a limited range of these wares were manufactured on site. Decoration is restricted to bands of turned decoration on the tankards. Most coarse ware vessels were unslipped, but a pale yellowish slip was applied frequently to tankards and fine wares. Glazes vary in colour from a yellowish brown to a deep reddish brown and are usually glossy. The mottling is found most commonly

as streaking on the coarse vessels, but is often only slight spotting or even a clear glaze on the tankards. This variation in the mottling agrees with the material found on the sampling excavations (Philpott and Davey 1984, 23).

Saggars - Kiln Technology

127 saggars sherds were excavated, constituting an estimated vessel equivalent of 39. Total figures as follows:

<u>Rim</u>	<u>Body</u>	<u>Base</u>	<u>Profile</u>
35	30	60	2

Fabrics fell into three types:

1. An open textured yellowish-buff coloured material with moderate inclusions of red grog, buff clay, dark shale and chert. Saggars manufactured from this particular fabric tended to be less roughly made than others.

2. A harder, more compacted material varying in colour from brown/red, muddy mustard-red or grey. Inclusions were abundant, consisting mainly of a very hard fabric with a slightly glossy appearance (probably chert) and varying in size from medium to very coarse (15mm x 9mm). Other inclusions consisted of buff clay, red grog and burnt grey shale.

3. A finer version of 2, where the background fabric and colour tended to be similar although inclusions were fewer and smaller in size. Again, these comprised buff clay, chert, grog and shale.

All saggars were roughly circular in shape, except two (99 and 88), which were oval. It was only possible to measure the depth of one saggars (120mm) as this was the only one with a complete profile. Thickness of saggars walls varied, those of fabric 1 being the finest of all (c. 18-20mm) with saggars sherds of fabrics 2 and 3 measuring c. 25-30mm thick. Evidence of reduction and/or overfiring was clear on many sherds (103, 105, 94, 97, 90) suggesting that these vessels were used for several firings.

Traces of glaze were found on many saggars sherds, tending in the main to be iron-stained lead glaze with only one profile sherd having a small patch of manganese-stained lead glaze to the internal body.

The large oval saggars (88) had the most substantial evidence of iron-stained lead glaze to the internal base; drips and patches were present in roughly circular formations suggesting that several small fineware vessels may have been fired simultaneously.

Wherever runs of glaze were visible these flowed from rims downwards to bases, both internally and externally (104, 96, 89), occasionally running into the base and vitrifying (104, 90), suggesting that the saggars were used in an upright position. This method of firing contrasts with that found by Brears where the vessel was placed on the floor of the kiln and a saggars inverted over it (Brears 1971).

Evidence shows that separation techniques were required, not only for vessels, but for saggars themselves, although given that saggars were not likely to fuse together, as unglazed, the need for separation is unclear. It is possible that bats or bobs may have been inserted between saggars to ensure some degree of air circulation (88, 107, 93, 96, 89).

Use of saggars did not exclude the use of parting sherds and other propping devices. Indeed, evidence from saggars and vessel sherds show that separation methods were vital to prevent glazes fusing with anything with which they came into contact. The remains of stilts can be seen on 90; small ceramic pieces were used to tilt a vessel slightly thus facilitating easy removal from the saggars base once the firing process was completed.

Given the size of vessels and depth of saggars, it is fairly certain that only fine ware items were fired within them (see 107). Fine ware items would not have been able to withstand the pressure which a stacking method would inevitably entail. A significantly greater proportion of coarse ware sherds showed evidence of reduction and/or overfiring, suggesting exposure to greater fluctuations of temperature due to firing in an open kiln. Figures for overfired sherds as follows:

Coarse wares - total 1278 (405 overfired)

Fine wares - total 562 (66 overfired)

Potters needed to utilise kiln space as economically as possible for one firing, so placing and stacking of pots was extremely well planned. Fine ware items were placed upright within upright saggars, the latter being stacked on top of each other. Coarse wares were undoubtedly stacked rim to rim, base to base in a column or "pyramid" formation. Table for firing positions as follows:

Coarse wares

<u>Form</u>	<u>Total sherds</u>	<u>Upright</u>	<u>Inverted</u>	<u>N/A.</u>
Storage vessel	710	121	53	536
Pancheon	133	14	27	92
Bowl	94	40	-	54
Jug	12	10	-	2
Wide-necked dish	143	50	-	93

Large-handled vessel	4	--	--	4
Globular jar	28	28	--	--
Tankard	3	3	--	--
Plate	1	--	--	--
Beaker	1	--	--	1
Candle holder	5	5	--	--
Test piece	1	--	--	--
Syrup collecting jar	1	1	--	--
Unidentified	142	--	--	142
	<hr/>			
	1278	272	80	926
	<hr/>			

Fine wares

Bowl	247	108	--	139
Jug	84	36	--	48
Globular jar	6	4	--	2
Beaker	12	8	--	4
Tankard	88	57	--	31
Posset pot	39	18	--	21
Wide-necked dish	23	18	--	5
Pedestal dish	2	--	--	2
Cup	12	10	--	2
Plate	2	--	--	2
Tyg	1	1	--	--
Large-headed vessel	46	4	--	42
	<hr/>			
	562	264	--	298
	<hr/>			

N.B. It was only possible to deduce firing positions from sherds such as rims and bases, hence the large number of body sherds are not attributed.

Kiln Furniture - Separation Technology

Bats

This term applies to items of kiln furniture used in the separation process and in the main taking the form of roughly formed or moulded flat pieces of clay usually square or oblong in shape. Several potsherds also served to act as separating agents (121, 129). A total of 23 bats in all were excavated at Prescott. The most notable feature of these pieces was evidence indicating stacking systems and the type of vessel separated. Iron-stained lead glaze was found on most in varying degrees from only slight traces (123) to substantial coatings (126, 127) and as with stilts, provided extra assistance in the prevention of glaze adhering, although more evidence of this was found on bats than was the case for stilts. The majority of bats suggest that wide-rimmed storage vessels had been stacked and separated in a rim to rim formation, for instance 123, 125, 126 indeed, one rim

fragment had adhered to a bat (124) - presumably the vessel was fired in an inverted position, glaze has run and separation proved inadequate in this instance. These pieces also acted, presumably, as separating agents between external bases of vessels although evidence of this was more difficult to ascertain as opposed to the more obvious rim features.

The majority of evidence from the pottery sherds themselves shows that bats were used for the larger, coarser wares rather than for finer wares.

The following table illustrates this point:

<u>Coarse ware sherds</u>	<u>Rim</u>	<u>Rim/handle</u>	<u>Base</u>
Storage vessel	42	12	21
Pancheon	17	--	2
Bowl	--	--	1
Jug	--	--	1
Wide-necked dish	--	--	2
Beaker	--	--	1
<u>Fine ware sherds</u>			
Bowl	--	--	1
Jug	--	--	3
Tankard	--	--	2
Wide-necked dish	--	--	1
Cup	--	--	2

N.B. All separator marks on fine wares were on bases.

Bobs

15 of these were excavated. Bobs are generally smaller and more roughly shaped than bats, although usage was similar. Many bobs had impressions (130, 86, 132) some visible on both faces (134), several to the extent that fragments of vessel rims had adhered (133), whereas this was only evident on one bat. Bobs were used to separate black-glazed vessels, only one being used to separate a manganese-stained vessel (131). As with bats, glaze was accidental, originating from the fired pot.

Stilts

A total of 64 stilts were excavated at Prescott. All were roughly moulded by hand, conically-shaped and fell into four approximate sizes:

<u>Large</u>	<u>Medium</u>	<u>Medium-small</u>	<u>Small</u>
15	22	12	14

The majority had been used for separating black-glazed vessels, iron-stained lead glaze being evident

on stilts to a greater or lesser degree. Some stilts had merely a thin band of glaze around the circumference of the bottom (narrow area) (108). Many had thick runs of glaze to the face and the remainder substantially coated with iron-stained lead glaze (117). Only a few stilts had traces of manganese-stained lead glaze (115, 116) indicating that either fewer of these wares were produced at Prescott or that only the larger of manganese-stained vessels required stilt separation (chamber pots, for instance). All stilts were placed in an upright position (the narrow area of stilts being designated bottom, the wider area to be the top) to separate vessels during the firing process. Moreover, stilts were mostly used for separation of coarse black-glazed wares and in the main positioned within vessel bases, 14 stilt marks being found on storage vessels, two on pancheons and two on bowl sherds. Confirmation of this is a black-glazed storage vessel base sherd which has a piece of stilt adhering internally. This sherd has been designated kiln furniture as the stilt category takes precedence over the actual potsherd. There was only one notable exception, two stilt marks being found on a fineware bowl sherd (34), comprising two small circular pale patches to the external base. The tops of several stilts showed distinct impressions (that is depressions in the fabric of the stilts) of either rims or more probably bases, indicating a system of stacking to be in operation. Furthermore, sand was utilised in the separation process as a means of preventing glaze adherence. Traces of other fabric than that of the stilt - presumably the fabric of vessels themselves - was found to be yet another common characteristic (111, 112, 115, 117) indicating poorly developed separation technology and only minimal control of glaze in high kiln temperatures. Interestingly enough, one stilt had traces of a buff-white coloured fabric which was also in evidence on several black-glazed pottery sherds and one bat.

The Clay Pipes

256 clay pipe fragments were found, the majority in disturbed 19th century contexts. The only group which can be used for dating purposes is context 37, from which pipes and pottery belonging to the 17th century only were recovered. This context is an important one because it was sealed by the walls and floor of the pottery and as such it provides a *terminus ante quem* of c. 1680 for the start of production on site. Considering that the main period of use of the site was between 1740 and 1780, there were remarkably few 18th century pipe forms. Most of the pipes were of local Rainford types, although one example was probably made in Chester. The pipes had little decoration, the only decorated stem being the example from Chester. Full quantification of all pipe fragments are contained in the site archive.

The Sugar-refining Pottery

C.M. Brooks

The pottery assemblage includes 73 sherds belonging to vessels intended for use in the refining of sugar. The main vessel types are those in standard use in the industry in the 17th and 18th centuries (Brooks 1983), comprising conical sugar-loaf moulds and syrup pots. A third form with feet is also present.

Fabrics

The majority of sherds, belonging to Types 1 and 3, are in the same fabric, an orange-red to brick-red earthenware with fairly sparse small quartz inclusions; two examples are over-fired to vitrification. In a few sherds the clay is poorly mixed and has a laminated appearance with thin streaks of whitish clay.

The five sherds of Type 2 syrup jars are in grittier fabrics. Two sherds are pink to creamy-pink with some lighter and darker clay laminations; the inclusions are slightly larger and more frequent than in the red fabric. One of these sherds has red slip on both surfaces. The remaining Type 2 sherds are also somewhat gritty, but are orange-red to dark red in colour. Two have red slip, darker than the body colour, on one or both surfaces; the fifth sherd is over-fired to dark purplish red and brown, but it too seems to have had a red slip, on the internal surface at least.

Forms

The form numbers follow those given in Allan 1984, 138-9.

Type 1: Sugar-loaf moulds (Nos. 153-5). These are conical vessels with thickened rims, each pierced by a single hole in the pointed base, the size of the hole depending on the size of the vessel. The moulds are unglazed, and the internal surfaces are carefully smoothed. Two base sherds are present, one from a small mould and the other from a much larger one. One rim (No.5) most probably belongs to a sugar-loaf mould rather than a Type 3 vessel, because of its small rim diameter.

Type 2: Syrup jars (Nos. 151-2). These jars have high shoulders and heavy rims, and although no base sherds are present, they usually have sturdy ring-footed bases. Only five sherds of this type were found, two of them being rims. Most of the sherds have red slip on one or both surfaces. Black glaze is present round the interior of the rim, but there are only spots or slight traces of glaze elsewhere.

Type 3: Tall vessels with tripod feet (Nos. 157-8). This form is represented by one foot, and two basal sherds with scars where similar feet have become detached. The basal sherds are unglazed and have smoothed internal surfaces. Bases with feet were found at Exeter, in a group dated to c. 1680-1720; although no complete vessel could be reconstructed there, it was deduced that the form was a large conical vessel with rounded, unperforated base and tripod feet. Rims were slightly thickened and square-topped, and their diameters ranged from 28-48 cm (Allan 1984, 139).

Type 1 or 3 (Nos. 156, 159). Some 55 unglazed, internally smoothed body sherds and 7 rim sherds cannot be assigned with certainty to Type 1 or Type 3. At Exeter, the forms could be distinguished on wall thickness; the body sherds of Type 1 were c. 4-8 mm thick, whereas those of Type 3 were c. 10-18 mm thick. This distinction is not possible with the Prescott material, however; the two Type 3 sherds with foot scars vary from 5-9 mm in thickness, and the Type 1 bases also range from 5-9 mm. The remaining body sherds vary from c. 5-11 mm. in thickness. It is also impossible to estimate the number of Type 1 or 3 vessels represented by the body sherds because of the homogeneity of the fabric, the lack of joining sherds and the fragmentary nature of much of the material.

The 7 rim sherds, which represent 6 vessels, range in diameter from c. 3-41 cm. With the exception of No. 156, the rims are all of the same flat-topped type as Nos. 155 and 159. The evidence of rim size and form are not sufficient to determine whether these vessels belong to Type 1 or Type 3.

Five of the 62 Type 1 or 3 sherds have a very thin creamy wash or slip externally; of these, two also have shallow horizontal grooves. Four unslipped sherds are similarly ornamented with shallow grooves. In some instances these grooves are well defined and deliberate, but in others they amount to little more than pronounced throwing marks. Combed or grooved decoration of a very simple kind occasionally occurs elsewhere (e.g. Brooks 1983, Fig. 1, no. 1).

The use of pottery in sugar-refining

Sugar which had gone through preliminary refining processes at the plantation was refined again on being imported into Britain, and formed into sugar loaves. After being boiled and clarified, the sugar in syrup form was strained and poured into conical moulds, the basal holes being sealed with temporary bungs. Once the sugar had crystallized, the bungs were removed and the moulds were seated on syrup

jars, which collected the excess syrup or molasses as it drained through. A process known as "claying" was then used to purify and whiten the sugar. A mixture of fine white clay and water was poured on the the sugar loaves in their moulds, and the water then percolated slowly through the jars, carrying away more molasses. The molasses was collected for further refining, or for distillation. The process of claying could be repeated several times. (For more detailed accounts of sugar production, see Brooks 1983; Allan 1984, 138-41).

The conical moulds varied in size, and were used to produce loaves of different qualities, the smallest loaves usually being for the finest quality sugar and the largest being the lowest grade. The careful smoothing of the interior of the moulds, noted also on these vessels elsewhere, presumably helped to prevent the sugar sticking too much and facilitated the removal of the finished loaves. Both moulds and jars are found in considerable numbers on refinery sites.

The function of the Type 3 tripod vessels with no basal holes is less clear, as they are not described or illustrated in contemporary sources. They have so far only been identified at Exeter, where it has been suggested that they were used for preliminary crystallization of the sugar after boiling (Allan 1984, 140-1); this explanation seems most likely. These pots have been compared to an 18th century French representation of similar large conical vessels in which granulation was sometimes begun. These French vessels had no feet but were supported in a wooden stand; the syrup was stirred with a stick to break up the crust adhering to the sides of the vessels. Shallow wooden tanks were later used to complete the granulation process. The feet on the English vessels presumably supported the pots without the need for the wooden stand.

The Illustrations (Figs. 10.7-10.25)

Black-glazed wares (1-70)

Storage vessels (1-27)

1. Two rim sherds, one with strap handle, fabric poorly mixed orange clay, overfired, moderate inclusions white clay.

Fired upside down, glaze running towards rim internally and forming blob of glaze uppermost rim area. Separation marks on both sherds, glaze pooling around area where separator situated. Also many particles of sand around separator areas, glaze internal and external even but dull. 1985/1/7.

2. One rim/handle sherd (complete strap handle attached). Fabric buff moderate inclusions. Vessel fired in upright position with substantial light area to uppermost rim (separation). Glaze is uneven, gritty and dull in appearance. 1985/1/54.

3. Three rim sherds of large vessel, one sherd with strap handle - fabric poorly mixed orange clay with heavy white clay banding - slightly overfired, moderate inclusions of red grog (one measuring 10mm) and white clay glaze uneven/gritty texture internally, externally glossy where glaze is even 1985/1/7.

4. A rim-handle storage vessel. Fabric buff, moderate inclusions. Core reduced grey. Vessel fired upright with lighter patch uppermost rim area suggesting separation. Glaze is uneven and dull. 1985/1/54.

5. One rim with complete strap handle attached. Fabric orange with white clay banding. Moderate inclusions of white clay (moderate to very coarse or 0.05mm to 10mm) and red grog (though the latter more sparse, largest particle visible being 2mm). Vessel fired upright and glazed overall. No slip internal or external. Where glaze is correct thickness is very glossy and smooth (more so externally) although somewhat gritty texture internally. Glaze applied unevenly or not thickly enough to ensure perfect glaze finish. Firing position upright ascertained from very slight run of glaze downwards (handle area). Separator mark uppermost rim though with no glaze running from vessel above - merely lighter coloured patch indicating where separator situated. 1985/1/8.

6. One rim. Fabric orange clay with substantial white clay banding. Large area of upper rim missing (separation). Slight running of glaze externally suggests vessel fired in inverted position. 1985/1/8.

7. Two rim sherds. Fabric orange clay, substantial white clay banding. Slight running of glaze externally and pooling under lip of outer rim area suggest vessel fired in inverted position. There is a substantial area of upper rim missing, caused by separation of the vessel. "Bobs" from same layer have substantial portions of different vessel rims adhering to them. 1985/1/8.

8. One rim. Fabric buff, moderate inclusions. Vessel fired upside down although glaze has not run to any great extent - with paler area on uppermost rim. Glaze finish is fairly glossy although some grittiness of fabric showing through. 1985/1/54.

9. One rim. Fabric orange and substantial white clay banding although overfired purplish. Moderate inclusions white clay and red grog. Vessel fired upright and glazed overall although uppermost rim area covered with iron stained lead glaze with runs from this onto external rim and two large thick runs internally. Distinct separator mark on rim. Vessels fired rim to rim, inverted vessel above the glaze of which has run onto vessel below. 1985/1/8.

10. Two rim sherds. Fabric orange brick-red slight white clay banding. Moderate inclusions of white clay up to 3mm also red grog. Vessel fired upside down with runs of glaze towards rim externally; internally runs onto uppermost rim area forming into thick blobs. Separator marks on one rim sherd (could be the wider area of a stilt as the shape is similar), also sand particles. Removal of separator has taken piece of rim vessel with it. Where even, glaze is glossy. 1985/1/7.

11. One sherd. Fabric orange with many white clay inclusions and mica. Slightly reduced. Glaze dark brown with black streaking (due to no slip?) uneven internally. Fired upright but with black glaze congealing around separator mark on uppermost rim area (also sand particles adhering here). Glaze has run from vessel positioned above it during firing (?). 1985/1/7.

12. One sherd. Fabric orange with many white clay inclusions up to 2mm. Glaze uneven internally with gritty texture (also external rim). Body area even and glossy. Vessel fired upside down with glaze pooling/thickening at point where body/underside rim meet. Glaze has run onto uppermost rim area with round stilt mark thereon. Brick-red slip. 1985/1/7.

13. Three rim sherds (two wasters). Fabric orange with a few red grog and many white clay inclusions up to 2mm. Glaze has run through crack into body of rim. Fired upside down - glaze running towards rim area and congealing on 2 sherds, with other fabric adhering. All three sherds glaze uneven/gritty

internally. Externally on actual rim areas, the glaze is similar but, where thick, it is metallic-lustrous or glossy. 1985/1/7.

14. One rim; hard fabric, over fired reddish-purple with many white clay inclusions. Glaze running onto rim (uppermost) and pooling, and other fabric adhering to this inadequate separation between 2 pot rims (?) i.e. rim to rim firing. Glaze internal and external uneven and quite dull. 1985/1/7.

15. One rim. Fabric red-brick, well sorted, hardly any inclusions, occasional flakes of mica. Fired upright glaze running down over rim. Glossy glaze internal. Unglazed external. Rim diameter 0.54m. 1985/1/50.

16. One rim. Fabric is reduced grey - core has spaces in which oxygen has been trapped. Fired in upright position with lighter area uppermost rim where separators has been situated; glaze has collected and vitrified around area with particles of sand adhering. Glaze finish is uneven and dull. 1985/1/54.

17. One base. Fabric poorly mixed orange clay with heavy white banding very reduced (body area grey). Fired upright, runs of glaze externally, one of which has run underneath vessel and collected around piece of fabric (separator)? Dull internally, fairly even and glossy externally. 1985/1/7.

18. One base. Fabric poorly mixed orange clay with heavy white banding. Firing position uncertain though there is a stilt mark (narrow area) at edge internal base with some pooling of glaze around this. No runs of glaze externally. Glaze glossy internally. 1985/1/7.

19. Four base sherds. Fabric orange with white clay banding - inclusions red grog (2mm) and white clay (2mm) moderate. Slip internally and externally; internally glaze has dull appearance and rough, gritty sandy texture. Distinct pale patch on bottom external indicating separation (possibly the wider areas of a stilt). 1985/1/7.

20. Two bases, one body sherd overfired purple. Fabric orange with white banding. Fired upright and glazed internally and externally with glaze pooling towards approximate centre internal base where stilt (narrow area) has been positioned. Glaze running down towards base (externally) with blob formed on one base sherd. Separator mark (around which glaze has collected) with particles of sand on other base. 1985/1/7.

21. Two base sherds. Fabric orange with white banding, overfired reddish-purple. Glaze has

somewhat different appearance to other iron stained lead glazed sherds, being more brown looking although this probably due to no internal slip being used and glaze thinly applied. Brick red slip externally. No pooling of glaze internally but thick run of black glaze externally (one sherd) which has pooled around base externally and to which separator has adhered. Patch of thick glaze on outside of base on second sherd although no actual separator stuck to this. Glaze fairly glossy. 1985/1/7.

22. One flat base. Fabric hard laminated buff-brown clay, poorly sorted, inclusions moderate sizes ranging between 0.25-0.05mm with the occasional finer and coarser grain. Rounding sub-angular. Inclusions mainly white clay, chert, iron. Fired upright indicated by separator ("bob") attached beneath the base and what may be other traces of separator adjacent to the "bob". Clay appears to have collapsed around the "bob" and glaze run into the pot depression. Glaze dull black. Pot has been overfired. The fabric and the glaze shows evidence of vitrification near the base and air bubbles on the side. 1985/1/50.

23. One rim. Fabric buff with laminations, reduced grey. Firing position probably upright as there is slight depression uppermost rim (where a separator has been sited) presumably from weight of vessel balanced above. Glaze finish is uneven and dull with fragments adhering internally. 1985/1/54.

24. Two conjoining rim sherds. Fabric buff with laminations. Vessel fired in upright position. Slip only applied internally with mere patches externally. Glaze is unevenly applied and has a patchy, gritty appearance. 1985/1/54.

25. Two base, one body sherd. Fabric orange clay with heavy white banding, reduced grey core. Fired upright glaze pooling. Base sherds have glaze running downwards externally with other fabric (fairly large pieces) adhering to glaze which here congealed, possibly no separators used rather base of another vessel has come into contact with running glaze (?). Glaze of dull appearance externally and internally. 1985/1/4.

26. Two base sherds. Fabric buff with laminations. Fired upright with pooling of glaze to one side internal base. (3mm). Pooling of glaze around two areas where stilts have been positioned. Evidence of sand separation (underneath base) although no obvious signs of separation - vessel probably internal base where glaze has collected. 1985/1/54.

27. One base sherd, with hinged footring. Fabric red-orange clay with slight buff laminations, well sorted abundant inclusions of quartz and white clay.

Size range 0.25-0.05mm and finer. Fired upright indicated by glaze vitrification in base and separator trace marks beneath the base. Base appears to swell internally in a dome shape and the glaze has cracked internally having a crazed appearance. A piece of material adhered to the base may be a fallen separator. Glaze dull black. 1985/1/50.

Pantheons and bowls (28-42)

28. One base sherd. Fabric buff with laminations. Vessel fired in upright position with pooling of glaze where there is a slight depression (internal base). Also substantial pooling of glaze around area where the bottom of a stilt has been snapped off. Glazed internally and externally (glaze has run externally to underneath of vessel with some vitrification and sand separation). This vessel was probably balanced upon the uppermost rim of another vessel, accounting for slight depression of fabric in base. Glaze finish - metallic sheen. 1985/1/54.

29. Two rim sherds. Fabric orange. Substantial white clay banding although overfired purplish. Abundant inclusions of white clay (these being moderate to very coarse in size). Vessel fired upside down with iron stained lead glaze running towards rim forming thick blobs and also pooling around area where separator snapped off (traces of this remaining). No external glaze. Internally, glaze even and glossy. 1985/1/8.

30. One large rim sherd. Fabric buff with laminations. Vessel fired in upside down position with glaze running onto uppermost rim area where it has collected around separator (sand particles adhering also). The vessel is slipped all over although glazed internally only. Glaze is glossy but thin (gritty texture of fabric showing through this). 1985/1/54.

31. One rim. Fabric buff with laminations. Vessel fired upside down with considerable run of glaze onto uppermost rim area. One small patch of glaze appears to have collected around separation fabric. Sherd is unglazed externally with patches of brick-red slip and glaze. Vessel slipped internally only. Glaze finish is metallic lustrous. 1985/1/54.

32. One rim. Fabric orange with slight white clay banding. Fired upside down - glaze running onto rim from inside forming thick blobs on uppermost rim. Brick red slip. 1985/1/7.

33. One 17th century sherd with footring. Fabric brick-red with sparse inclusions of white clay and mica. Evidence of reduction/oxidisation (ie fairly thick band of greyness to external base area).

Vessel fired in upright position, glaze has run (but thinly externally giving a patchy appearance), and is more of a brown colour than the majority of these wares possibly indicating that this sherd is of earlier date. Internally the glaze is smooth, even and fairly glossy, with mottled - looking brown-black appearance, which may be due to lack of slip but more likely to be the particular glaze mix used. 1985/1/8.

34. One base sherd with footring. Orange fabric with some white clay banding inclusions. Fired upright, thickening of glaze internal base. Glaze running unevenly externally hence some gritty patches. Brick red slip; 2 small lighter round patches external bottom (stilt marks?) 1985/1/7.

35. One base sherd with footring. Orange brick-red, overfired grey-purple, very hard fabric, moderate inclusions. Fired upright - thickening of glass on one side (tipped sideways in kiln during firing?) internal base with run external. Piece of clay (broken from another pot ?) or separator adhering to base. Red slip discernible on the base (bottom, external). Glaze even with metallic lustre. 1985/1/7.

36. One base sherd with footring. Overfired hard reddish-purple fabric with moderate white clay inclusions. Glazed all over - thick pooling to one side internally (8mm thick) with glaze running externally forming thick blob on bottom (which corresponds with pooling) - tipped sideways during firing? 1985/1/7.

37. One base sherd with flat bottom. Fabric brick-red hard and close grained with moderate inclusions of white clay fine to medium in size. This vessel has been fired in upright position with pooling of glaze (internal base) 3-4mm in thickness. Internally, dull though external glaze has one run which has extended down to and underneath the base, where it has collected around a piece of buff coloured fabric. 1985/1/8.

38. One flat base sherd. Fabric orange brick-red with moderate inclusions of white clay medium in size. Crack through vessel into which glaze has seeped (can clearly be seen at the top of the sherd). Iron stained lead glaze which has run considerably externally, one run in particular forming a fairly thick blob underneath. Glaze has crazed internally with pooling to one side of the internal base. Overall finish is even with a fine metallic lustre. 1985/1/8.

39. One base sherds with footring. Fabric brick-red with moderate inclusions of white clay fine to moderate in size with only one very coarse white clay inclusion measuring 4mm x 2mm. Vessel fired upright

with considerable pooling of glaze to one side internal base (4mm). Glaze finish metallic sheen. A fragment of what appears to be saggar has adhered to internal base (presumably during the stacking process). A small piece of fabric, identical to the vessel, adheres to the exterior of the base. 1985/1/8.

40. One base and one body sherd with footring. Fabric brick-red in colour with sparse inclusions of white clay (fine to medium in size). Vessel fired upright and although glaze has run externally and thickened slightly it has not, however, formed dribbles. Glaze has pooled internally; underneath, slight traces of other fabric adhering. Iron stained lead glaze even and metallic lustrous. 1985/1/8.

41. Five base sherds with footring. Fabric brick-red hard and close-grained with moderate inclusions of white clay fine to medium in size. Vessel has been fired in upright position with considerable pooling of glaze to one side of the vessel (4mm thick). Glaze has crazed internally (base and body areas). Externally there are several fairly thick runs of glaze, one extending down over the footring area and forming into a blob. Glaze is metallic lustrous and even although there are small dull areas, due to weathering/erosion. 1985/1/8.

42. Two flat base/body sherds. Fabric is orange brick-red in colour, is hard, close grained with moderate inclusions of white clay and mica which are fine to medium in size. Vessel fired in upright position with slight pooling of glaze to one side internal base. Externally the glaze has run. Overall appearance is glossy, some patches of dullness presumably caused by erosion/weathering. Colour is dark brown with black streaking. 1985/1/8.

Other forms 43-70

43. One base sherd fine ware jug with footring; the rim of vessel has collapsed and fallen into and stuck to internal base. Fabric brick-red in colour with sparse inclusions of white clay (fine to medium in size). Vessel fired in upright position with glaze running down towards base (3 fairly thick glaze runs). Glaze running from elsewhere has run underneath vessel and collected around other fabric which is similar to that found on separator from layer 52 and bowl sherds layer 3. This fabric has appearance of coarsely mixed white clay which could have been used to tilt vessel slightly to prevent it adhering to saggar base during firing. There are also small traces of same fabric as vessel adhering to this area (i.e. where glaze has run underneath). Overall appearance of glaze finish is fine and even metallic lustre. 1985/1/8.

44. One base sherd of fine ware posset pot. Orange brick-red fabric, overfired red/purple moderate inclusions. Fired upright. Thickening of glaze internal/base. Glaze running externally, forming two blobs/dribbles. 1985/1/7.

45. Three base sherds of fine ware wide-necked serving dish/soup tureen with splayed foot. Fabric is a bright orange colour with soft chalky texture. Sparse inclusions of red grog of moderate size; also sparse inclusions of white clay up to 5mm in size. Externally there is one ring near to base with another two slightly further up the side of the vessel. Vessel fired in an upright position (slight pooling of glaze - internal base). Iron stained lead glaze internally dull and crazed, fragments of this being loose and easily removed. External glaze extends down only to cover the two upper rings worked on side of vessel and is more glossy than that internally. 1985/1/8.

46. One base sherd of wide-necked dish with footring. Fabric brick-red with moderate inclusions white clay fine to medium. Vessel fired in upright position with glaze dribbling externally and running underneath forming patch to which other fabric adhering. Pooling/thickening of glaze internal base. Metallic-lustrous even finish. 1985/1/8.

47. One base sherd of large handled vessel with footring. Fabric brick-red with sparse inclusions of white clay (fine to medium). Vessel fired in upright position with slight pooling/thickening of glaze to one side internal base. No glaze externally on this sherd. Internal glaze even, with metallic lustrous finish. 1985/1/8.

48. One base sherd of wide necked dish (tureen?) with flared footring. The whole sherd is reduced purplish-grey and the fabric is brick-red with sparse to moderate inclusions of white clay and mica fine to medium in size. Vessel fired in upright position with considerable pooling of glaze (up to 4mm thick) with glossy appearance. No glaze externally. Underneath the slip has a purplish appearance and there is a small patch of vitrified glaze. 1985/1/8.

49. One sherd 17th century wide necked dish with flat bottom. Fabric brick-red with sparse inclusions of white clay and mica. Firing position unknown. Externally only traces of glaze near bottom side of vessel with some mottled traces also underneath. Internally, an area where no glaze has come into contact with the vessel is purplish-brown which could be the colour of a slip. Some reduction evident. 1985/1/8.

50. One base, one body sherd of wide necked dish with footring; the body is fairly thick and flares

outwards. The vessel type falls somewhere between the very coarse storage vessel/pancheon type and the finer table wares. Fabric brick-red with moderate inclusions of black grog, white clay and mica. Externally the vessel is unglazed. Internally glaze is black, dull and appears to have seeped into the fabric of the vessel to a depth of 1mm body area and some 4mm at base. The vessel may have been left standing for too long before firing which could account for the seepage of glaze into the fabric. Slip is brick-red with a thick run/dribble external body area. 1985/1/8.

51. One base sherd of wide necked dish (?) with footring. Fabric brick-red with moderate inclusions white clay fine to medium in size. Vessel fired in upright position with thick dribbles of glaze externally running underneath to form blobs. Internally, glaze has pooled considerably (3mm thick). Metallic-lustrous finish to glaze. 1985/1/8.

52. One base sherd of wide mouthed shallow dish. Orange fabric with white clay banding. Internal glaze thin with gritty texture. Brick-red slip externally. Piece of fabric (same as vessel) adhering to external side of sherd (this piece has traces of black glaze around it). Vessels stacked too closely together in kiln. 1985/1/7.

53. One base sherd of fine ware wide necked shallow dish, flared footring with worked ring just above, with two more rings a little further up the vessel. Fabric orange brick-red in colour with moderate inclusions of white clay, medium to coarse in size; slight white clay banding. Glaze extending down side of vessel to the uppermost ring. Vessel fired in upright position with glaze running slightly externally, with only slight thickening of glaze internal base, although glaze is iron stained type, it has somewhat lustrous streaky appearance. 1985/1/8.

54. One rim sherd of fine ware (?jar). Fabric brick-red with sparse inclusions of white clay, fine to medium in size. Vessel fired in upright position and glazed overall with metallic, lustrous overall finish. 1985/1/8.

55. One rim sherd of fine ware bowl. Fabric brick-red with sparse inclusions of white clay, fine to medium in size. Vessel fired in upright position and glazed overall with iron stained lead glaze. Slight grittiness to overall finish with glaze appearance rather more of a gloss than metallic lustre.

56. One rim sherd of fineware bowl. Fabric brick-red with sparse inclusions of white clay, fine to medium in size. Vessel fired in upright position and glazed overall with iron stained lead glaze. Glaze

applied thinly as some grittiness visible; but has metallic-lustrous overall finish. 1985/1/8.

57. One rim sherd of wide necked shallow dish. Fabric brick-red with moderate inclusions white clay fine to medium. Vessel fired in upright position with glaze running slightly to just below actual external rim area. Glaze has glossy overall finish. 1985/1/8.

58. One rim sherd of wide necked shallow dish. Fabric brick-red with moderate inclusions white clay fine to medium. Vessel fired in upright position with glaze running slightly to just below actual external rim area, remainder unglazed externally. Overall dull finish to glaze. 1985/1/8.

59. One rim sherd of wide necked shallow dish. Fabric brick-red with moderate inclusions white clay fine to medium. Vessel fired in upright position with glaze running slightly to just below actual external rim area. 1985/1/8.

60. Four sherds (two rim, two body) of fine ware posset-pot. Fabric brick-red with moderate inclusions of white clay fine to medium in size; all sherds are overfired purplish colour. Vessel fired in upright position. Glaze glossier internally than externally and has overall streaked appearance. 1985/1/8.

61. One rim sherd of posset pot with ring at point where main body of vessel begins to flare. Fabric hard pure brownish brick-red with no obvious inclusions. Glaze is dull and overall colour is more of a dark purplish brown rather than black suggesting that no slip was applied (?). 1985/1/7.

62. Five sherds of fine ware beaker with footring. Fabric pale yellowish pink-orange, close-grained and soft in texture. Inclusions are moderate in frequency and in size, consisting of red grog, ironstone, white clay or quartz (?) and micaceous. Slip all over although a darker orange than that of the fabric (could be slurry as opposed to slip). Glaze metallic lustrous iron stained lead glaze. Glazed overall save band unglazed near base. Fired upright with very slight pooling to one side. 1985/1/8.

63. One flat base sherd of beaker with distinctive swirl formed in fabric internally. Fabric buff coloured with moderate inclusions of white clay (although few, quite coarse 2mm), slight thickening of glaze; fired in upright position. No distinctive marks externally apart from accidental splash of brick-red slip. 1985/1/7.

64. Two conjoining sherds of fine ware tyg. Fabric brick-red in colour, is hard and close-grained with

sparse inclusions of white clay which are fine to medium in size. Vessel fired in upright position with slight glaze vitrification internally where body area meets with base. 1985/1/8/6.

65. Five sherds (three neck, two rim) of candlestick. Orange fabric, inclusions white clay (moderate) 1mm; red grog. All over brick-red slip, all over black glaze. 1985/1/7.

66. One base sherd of fine ware tankard with footring; a worked ring directly above this with another two a little further up side of vessel at area where handle has been attached (handle missing). Fabric brick-red with sparse inclusions white clay, fine to medium in size. Vessel fired in upright position with thin run of glaze externally and pooling to one side internal base. Patch of glaze underneath with traces of fabric adhering. Glaze even internally and metallic-lustrous. 1985/1/8.

67. One handle, probably of a jug handle. Fabric brown (probably red clay in reduced state due to overfiring). Hardly any inclusions just occasional flakes of mica. Handle zig-zag shaped for required grip. Firing position impossible to ascertain. Glaze dull black/brown, appears to have some manganese content in glaze. 1985/1/67.

68. Three body sherds of globular vessel, two rings externally, near rim area. Fabric orange, all three sherds reduced grey. Glazed all over externally and upper section internally - glaze running internally. Slip has purplish appearance. 1985/1/7.

69. Globular jar. Fabric buff with moderate laminations inclusions white clay, grog medium to large in size (10mm). Red slip. All over glaze. Glaze generally glossy, some grittiness. Vessel fired upright. Fabric adhering to base. 1985/1/54.

70. Five conjoining sherds of globular jar. Fabric orange with substantial white banding. Firing position of vessel upright (slight vitrification of glaze towards bottom of vessel). Glaze internally is glossy but thin, some grittiness and has more of a brown appearance than black? Glaze appears darker externally though with a streaky appearance. 1985/1/52/55.

Mottled and self-coloured wares (71-87) (mottled unless otherwise stated)

Bowls and dishes (71-81)

71. Four sherds (two rim, one body, one base), manganese glazed rimmed dish. Fabric pink-orange, buff laminations and surrounded with clay, quartz and

grog inclusions 0.25-5mm. Fired upside-down. Glaze golden-brown with speckling. 1985/1/50.

72. Eleven sherds (six base, three body, two rim) with footring. Fabric overfired purplish brown-grey with banding. Inclusions of red grog and white clay. Fired in upright position; however the thickness of glaze pooling to one side of the vessel (5mm) debris adhering to rim and internal and external body, and external manganese runs of glaze which form into blobs underneath suggest that the vessel tipped sideways during firing process. Glaze colour yellowish-green with thick brown runs, although where glaze is evenly manganese mottling is much slighter. 1985/1/7.

73. Four sherds (three base, one body) of clear lead-glazed wide necked bowl with footring. Fabric pinkish brown-buff (all slightly overfired) with fairly substantial white clay banding. Inclusions of red grog - (1 particle measuring 5mm x 2mm) though these sparse - and white clay in moderate quantities and varying from medium to very coarse in size. Fired upright although no obvious evidence of this firing position, merely very slight thickening of an external rim of glaze, and very slight thickening internal base. Brick-red slip, external only. 1985/1/7.

74. One rim. Fabric pinkish-brown buff with moderate inclusions of white clay and grog, medium to coarse in size. Glaze clear with streaking. Probably fired in upright position. 1985/1/54.

75. Profile (three rims, two bases). Fabric coarse orange clay with white clay laminations. Moderate inclusions of grog, white clay and chert, small to medium, sub angular to angular. Glaze thick and lustrous with streaking. Fired in upright position with glaze running to form blobs near base. Internal glaze cracked. Some warping of vessel. 1985/1/55.

76. One rim/handle of waster from a chamber pot. Fabric buff clay with moderate inclusions of white clay and chert up to 5mm in size, sub angular to angular. Glaze greeny dull and pitted with streaking. Fired in upright position with pot inverted over it. Fabric of other pot stuck to rim, also mottled glaze from other vessel running to form blobs. Other vessel same fabric, possibly was also chamber pot. 1985/1/54.

77. One sherd (profile) unglazed wide rimmed dish. Fabric cream-buff colour. Inclusions abundant, ill sorted, size range mainly 0.25-0.5mm, mainly iron, grog, quartz and large white clay inclusions 1.0mm, sub angular to angular. Difficult to ascertain which way it has been fired, maybe upright as rim sags down and separator marks at base. Some warping. 1985/1/64.

78. One jar. Fabric pink-orange to buff clay with moderate inclusions, clear glaze fired in upright position, with slight runs of glaze from rim.

79. One base sherd with footing. Fabric hard close-grained, pale pinkish-orange colour with sparse inclusions of medium sized white clay particles, and mica. Glaze even and glossy, yellowish pale brown with dark brown-black speckles and slight streaking. Flat external base with piece of separator fabric adhering. 1985/1/7.

80. One skillet handle. Fabric close-grained pinkish orange with sparse inclusions of white clay. Fired upright with glaze collecting in area where handle folded. Other fabric than that of handle adhering along bottom suggesting that skillets, being very open-necked and shallow, were stacked inside each other for firing with large on bottom, smaller vessels towards top. Glaze colour pale tan-brown with dark brown-black manganese mottling. 1985/1/7.

81. One skillet handle. Fabric close-grained pinkish orange with sparse inclusions of white clay. Glaze collecting in fold of handle. 1985/1/7.

Beaker and tankards (82-87)

82. Three rim sherds of beaker. Fabric creamy yellowish-white coloured with no obvious inclusions. Colour of vessel yellowish pale brown with dark brown mottling/streaks. 1985/1/7.

83. Four base sherds. Fabric buff-green overfired; inclusions low in frequency, well sorted and of a very fine grain size 0.1mm mainly sub-rounded iron, grog, quartz inclusions. The tankard has been fired in an upright position and may have been tilted at a slight angle when in the kiln as the glaze on one end runs down the external side of the base and on the internal side vitrification of the glaze occurs. Further evidence that the base of the tankard was tilted is suggested by the remains of a stilt trace mark (in the form of fabric and glaze) at the base of the tankard and the lack of glaze on the part of the tankard's external side, due to tilting. 1985/1/50.

84. One clear glazed base sherd with splayed foot. Fabric pinkish yellow-buff with slight clay banding and inclusions (sparse) of white clay (coarse). Slip creamy yellow colour. Vessel fired upright with pieces of debris adhering to internal base. Particles of sand collecting small area external base (sand separation or vitrified glaze?) Vessel glazed overall pale yellowish green-brown. 1985/1/7.

85. One base sherd with footing. Fabric pure buff-white with no obvious inclusions. Fired upright,

slight thickening of glaze on inside of base and externally collecting and thickening slightly above area where footing begins to flare outwards. Slipped externally only (creamy-yellow colour). Where glaze has collected internal base its dark brown, though where it is more even (i.e. body area) it is lighter brown with dark streaks/speckles. 1985/1/7.

86. One base sherd with splayed bottom and one ring just above this. Fabric hard close grained, pale pinkish-orange with sparse inclusions of medium sized white clay particles and mica. External slip creamy pinkish orange. Fired upright with thickening of glaze on inside of base. Glazed all over yellowish pale brown with dark brown/black manganese mottling/speckles. Glossy finish. Underneath traces of black glaze (?) and particles of sand or other fabric adhering to this indicating some form of separator used. 1985/1/7.

87. Base and handle stilt; fired in upright position, glaze running downwards externally from handle and collecting where narrow end of stilt broken away and also collecting and running near external base of vessel and forming fairly thick blob underneath. Internally glaze has pooled on the base. Glaze colour-greenish yellow brown with speckling. 1985/1/7.

Saggars etc. (88-107)

88. Six base and two rim sherds. Two bung-holes near base and one on one of the rim sherds. Fabric yellowish creamy white with few small inclusions of grog, chert and shale. Underneath there are traces of other fabric around edges (where saggar has been balanced above another during firing?). Fabric adhering to uppermost rim area (from saggar or lid balanced above). Saggar is very large in size and oval in shape. There are traces of iron-stained lead glaze internal base (drips of which have formed in a roughly circular formation). Used to fire smaller fineware vessels. 1985/1/7.

89. Profile (two sherds), base diameter 36cm; rim diameter 30cm; height 22cm. Fabric colour brown-red. Inclusions grog, mica, ironstone, sand and buff clay, sorted medium to coarse grained. Two bung holes are at either side of the profile and are found near the base. Separator (bat) attached to top of rim and there is a small piece attached to the bottom. Black/brown slip. 1985/1/52.

90. Base (2 sherds), diameter 34cm. Fabric buff with green-grey tinge, due to reduction during firing; inclusions grog, mica, ironstone, sand and chert, well sorted, medium to coarse grained sub-

angular. Evidence of sanding in base; also black iron stained lead glaze in centre of base, where vitrification has occurred and glaze has formed in bubbles in the fabric when it has run. Both sherds have bits of broken stilt and separator attached to them. 1985/1/69.

91. Kiln pillar base (two sherds) with bung holes. Diameter of base 17cm. Fabric coarse buff clay with moderate inclusions of grog, mica, ironstone, sand and chert, well sorted, medium to coarse stained sub-angular, used in inverted position. The underside of the base has evidence of sanding, black glaze from a probable storage vessel (diameter c. 17cm) and glaze from a separator. Evidence of some sanding. 1985/1/54.

92. Test piece (or possibly handle of enormous vessel). Fabric orange brick-red with laminations of white clay. Sparse inclusions of burnt shale and white clay up to 0.5mm, angular red slip patchy black glaze. 1985/1/52.

93. Rim with separator (bat) attached on top of rim. Diameter of rim 28cm. Fabric colour buff/light brown. Inclusions grog, ironstone, mica, sand, chert. Well sorted medium to coarse grained, sub-angular. Glaze running down from internal side of rim of the saggar. Some vitrification in glaze type iron stained lead glaze. Saggar covered in a broken slip and parts of the surfaces sanded. 1985/1/50.

94. Rim with separation marks on top. Fabric colour greyish-buff becoming reddish due to overfiring, used for several firings. Moderate inclusions of shale, chert and grog very coarse in size (10mm x 5mm). Slight traces of iron-stained lead glaze externally (accidental splash). 1985/1/7.

95. Two rim sherds. Fabric grey in colour with abundant inclusions of chert and shale which are buff to creamy-white, varying in size from medium to very coarse (8mm x 5mm). Slipped a mustard colour all over. Depression in uppermost rim suggests another saggar situated above with weight causing rim to sag. 1985/1/7.

96. Rim with separator (bat) attached on top. Diameter of rim 24cm. Fabric colour buff/light-brown. Inclusions grog, ironstone, mica, sand, chert. Well sorted medium to coarse grained, sub-angular. Glaze running down external side of rim. Glaze type iron stained lead glaze. Saggar appears to be designed for a deep vessel, pancheon or storage vessel. 1985/1/52.

97. Rim, diameter 26cm. Fabric buff with green tinges due to reducing during firing, inclusions grog, ironstone, mica, sand, chert, well sorted

medium to coarse grained, sub-angular inclusions. Evidence of sanding on rim top. Golden-brown slip on saggar. 1985/1/69.

98. Profile; diameter of base 24cm, of rim 20cm; height 15cm. Fabric colour brown-red with dark shale and buff coloured inclusions - white clay/chert, also concretions of buff-green sand grog ironstone, mica, sand. Poorly sorted, medium to coarse grained sub-angular inclusions. Red brown slip. 1985/1/52.

99. Profile; diameter c. 36cms; probably oval. Fabric colour is yellowish creamy-white with few inclusions of grog, chert and shale. Fairly shallow, height c. 12cm. Bung hole situated near the basal area. Internally there is a small patch (accidental splash) of manganese stained lead glaze on the body of the saggar. Probably used to fire fineware wide necked shallow dish or bowl, or several smaller vessels in the one firing such as cups, beakers or small tankards. 1985/1/7.

100. Profile (two sherds); diameter of base 22cm, of rim 26cm; height 9cm. Fabric red clay 80% with buff clay 20% laminations inclusions ironstone, mica sparse. Saggar covered in a brick-red slip externally and internally. Probably used for a fineware wide rimmed shallow vessel, or may have been made very quickly for immediate saggar use. 1985/1/52.

101. One purplish-red overfired base. Moderate inclusions of grog, shale and chert which are mostly medium in size with very few coarse/very coarse particles. Traces of glaze internally (body area of vessel) which are purplish in colour (vitrified iron-stained lead glaze). Slight traces of underneath external base. This saggar used for several firings. Glazed. 1985/1/7.

102. Base with bung hole at the side. Diameter 34cm. Fabric colour, pale buff; inclusions grog, ironstone, mica, sand buff clay/chert. Well sorted medium to coarse grained inclusions, sub-angular. No glaze. Appears to have a clear slip which, on heating, has become dark golden/yellow then burnt to black. Probably used for deep wide rimmed vessel like a pancheon. 1985/1/52.

103. Two base sherds. Fairly small diameter (c. 22cm). Overfired and used for several firings. Internally the fabric is a muddy mustard colour with red core, external face reduced grey. Inclusions are abundant and consist of grog, shale and chert which are medium to very coarse in size and irregular, angular or sub-angular in shape. Small vessels such as beakers, tygs, cups or small tankards were fired in this particular saggar. 1985/1/7.

104. Base, has separator on internal side of base, may be base of stilt or a bat. Diameter of base 22cm. Fabric colour brown/red. Inclusions grog, ironstone, mica, sand, chert / white clay (possibly thuyolite) and burnt hardened shale. Some laminations of red and white clay. Glaze runs into base. Slight vitrification of glaze. 1985/1/52.

105. Joining body and base sherd showing some evidence of reduction hence used for several firings. Fabric varying in colour from muddy mustard-red to brick-red. Abundant inclusions of very coarse grey shale, white and buff coloured particles, white clay and chert?, which vary in size from medium to coarse (9mm to 15mm). The base is three times thicker than the side. 1985/1/7.

106. One base; fabric colour pale buff. Inclusions grog, ironstone, mica, sand, buff clay. Inclusions sub-angular, well sorted, medium grained. Base of saggar external side covered in parts with black iron stained lead glaze. Internal side has 'cinder like' vitrified material, which has accumulated at the centre of the saggar base. 1985/1/52.

107. One base with separator mark underneath and traces of vitrified glaze. Fabric is a yellowish buff colour with inclusions of white clay, chert and black shale. The most distinctive feature of this sherd is a small fragment of black-glazed fine ware rim which has adhered to internal base. 1985/1/7.

Stilts (108-117)

108. Fabric brick-red, moderate inclusions of white clay. Band of iron-stained lead glaze around bottom. Stilt snapped off at base, with buff fabric adhering. Used in upright position (widest end = top; narrow end = bottom). 1985/1/54.

109. Fabric buff coloured clay with sparse to moderate inclusions of grog and white clay, red slip. Bands of iron-stained lead glaze around bottom. Glaze has also run from top, covering one side. Top and bottom of stilt have traces of black glaze. Used upright. Stilt fairly cleanly snapped off. 1985/1/54.

110. Fabric buff coloured clay with sparse to moderate inclusions of grog and white clay, red slip. Band of iron stained lead glaze around bottom, pooling to one side also run of glaze down one side. Used upright. Stilt snapped off cleanly. 1985/1/54.

111. Fabric buff coloured with moderate inclusions of grog and white clay, red slip. Band of iron-stained lead glaze around bottom. Also some trace of

red bodied fabric. Used upright. Stilt cleanly snapped off. 1985/1/54.

112. Fabric brick-red with sparse inclusions of white clay. Thin band of iron-stained lead glaze around bottom. Also remains of red-bodied fabric. Used upright. Stilt cleanly snapped off. 1985/1/54.

113. Fabric buff coloured clay with sparse inclusions of white clay. Coated all over with manganese stained lead glaze. Glaze from vessel has also vitrified on top. Used upright. Stilt cleanly snapped off. 1985/1/54.

114. Fabric buff coloured clay with sparse inclusions of white clay, red slip. Glaze has run from top down one side, with band of iron stained lead glaze at bottom where glaze has pooled. Traces of glaze on top. Used upright. Stilt cleanly snapped off. 1985/1/54.

115. Fabric buff orange clay with moderate inclusions of white clay and grog. Two streaks of manganese stained lead glaze have run down side and pooled at base. Thin band of glaze around base. Also brick-red fabric adhering to bottom. Used upright. Stilt quite cleanly snapped off. 1985/1/54.

116. Fabric buff-orange clay with moderate inclusions of white clay and grog. Manganese-stained lead glaze has run down and coated one side, pooling at base. Glaze has also vitrified on top. Red bodied fabric adhering to base. Used upright in same firing with 86. Stilt cleanly snapped off. 1985/1/54.

117. Fabric buff-orange clay. Black iron stained lead glaze has run and substantially coated the stilt. Glaze has pooled at bottom and run over end. Glaze also found on top. Traces of red fabric adhering to base. Used upright. 1985/1/54.

Bats (118-127)

118. Orange brick-red fabric - irregular in shape. There is a fine rim shaped depression in the fabric surrounded by iron stained lead glaze to which another fabric has adhered. 1985/1/52.

119. Orange brick-red fabric. Impression and glaze large black-glazed vessel, probably panchcon or from storage vessel. Glaze has run onto bottom surface. 1985/1/54.

120. Fabric buff coloured clay. Finger impressions from hand moulding. Traces of black-glazed buff bodied vessel (possibly stilt) on top surface. 1985/1/54.

Bats not illustrated (121-127)

121. One unglazed potsherd (orange clay with white clay inclusions and white clay banding) with area on face (on which vessel rim situated for firing) being paler than surrounding area. Very slight traces black glaze with similar quantity of other fabric adhering (from inner area vessel rim?). 1985/1/7.

122. Purplish-brown fabric overfired therefore evidence of re-use? Distinct paler area (rim shaped) where vessel situated for firing. Small patch iron stained lead glaze to one corner of bat. Particles of sand all over both faces. 1985/1/7.

123. Orange coloured fabric with white clay inclusions/banding. Distinct rim shaped depressions either face of fabric with traces of iron stained lead glaze to area where bat has come into contact with outer rim area of vessel. Sand particles all over. 1985/1/7.

124. Orange coloured fabric with white clay inclusions. Same fabric as 74. Part of rim adhering (glaze has run down during firing and rim has firmly stuck to area where glaze has collected between actual rim and separator). Glaze has also run down two edges of separator. Iron stained lead glaze has greyish metallic sheen. Underneath fabric looks as though a layer of bat has come away with base (?) of vessel that has been removed. 1985/1/7.

125. Orange coloured fabric with white clay inclusions. Distinct rim impressions both sides (2 vessels fired rim to rim with bat in between). Iron stained lead glaze which has collected fairly thickly to one corner and coated 2 edges (via what would have been inner area of rim hence glaze has run from upper, inside down vessel and here pooled on bat underside ie rim area of upright vessel) glaze thicker underside than upper. Also on upper face of bat, rim shaped traces of glaze from external rim edge of inverted pot. 1985/1/7.

126. Orange coloured fabric with white clay inclusions. Distinct rim impressions both sides (2 vessels fired rim to rim with bat in between). Traces of rim fabric adhering one face with only very slight traces of other fabric on underside of bat. Sand particles both sides. Iron stained lead glaze has run and coated one complete edge (running glaze from internal vessel) and half length of two other edges - one edge no glaze run although traces of glaze from external rim areas. Used for firing two vessels, one upright and one inverted. 1985/1/7.

127. Orange coloured fabric with white clay inclusions. Although rim impressions are not quite so distinct as those present on other bats they are

nevertheless distinguishable as such on both faces. Iron stained lead glaze has run and coated one edge. Sand particles present both faces. This bat could possibly have been used for several firings given direction of rim impressions. 1985/1/7.

Separators/bobs not illustrated (128-134)

128. Iron stained lead glazed potsherd. Face 1 - piece of other fabric adhering to one corner. Face 2 - fragments adhering to one corner, also sand particles adhering to area of glaze vitrification. The actual edge of potsherd (above which fragments adhering) is reduced grey. 1985/1/7.

129. Iron-stained lead glazed potsherd. Face 1 - sand particles adhering and has gritty texture. Face 2 - substantial fragment of other fabric adhering. This potsherd reduced grey - two edges. 1985/1/7.

130. Very small in size with distance rim impressions both faces (though one more so than other). In fact the more distinct rim impression represents the upper face (upright position) as glaze has run down one edge from this area (i.e. outer rim area of inverted vessel). All edges pretty well coated with iron-stained lead glaze. Size of bob and that of rim suggests fine ware vessels fired. 1985/1/7.

131. Face 1 - manganese stained lead glaze pooling thickly around traces of other fabric which appears to be from base of vessel measuring from 8-10cm. Glaze has run down edges and congealed/pooled very thickly under face. 1985/1/7.

132. Large sized bob with one face showing distinct rim impression (other fabric). Iron-stained lead glaze running down two edges, hence vessel fired in inverted position. 1985/1/7.

133. Large sized bob with one face showing distinct rim impression with other fabric adhering there upon. Iron stained lead glaze running down two edges, hence vessel fired in upright position. May have been used for several firings. 1985/1/7.

134. Medium-large sized bob with two faces upon which flat section of rim adhering (more so one face than other). Iron-stained lead glaze running/coating edges; although difficult to ascertain firing position (i.e. whether upright/inverted). This bob has nevertheless been used to fire two vessels simultaneously rim to rim. 1985/1/7.

The Clay Pipes (135-150)

Date ranges after Oswald 1975

135. This is the earliest pipe found. The bowl and foot project forwards and there is milling around the edge; the stem is thick (1580-1610). 1985/1/2.

136. The bowl is red with a pinched mouth and flat heel; the clay is a reddish colour due to overfiring (1640-1660). 1985/1/2.

137. The bowl has a pinched mouth a flat heel and is milled around the rim. It is a second and has been squashed during manufacture (1640-1660). (2).

138. The pipe is similar to forms produced by Alexander Lankton of Chester (Rutter and Davey 1980, 217, Fig.77, no. 29) but there is no stamp. The angle of the bowl is lower than the Rainford model, it is burnished and the rim is lined and has a flat heel (1640 - 1680). 1985/1/2.

139. The bowl is more rounded and better finished than 138. There is milling around the rim and a more pronounced flat heel with a distorted stamp. (1660-1680). 1985/1/2.

140. The bowl is similar to no. 135 but it is more globular. It has a flat heel and is milled. 1985/1/2.

141. A large nineteenth century bowl with a raised leaf moulding on both of the seams. A small spur has been broken off (1790-1840). 1985/1/2.

142. A nineteenth century bowl, slightly smaller than no. 141. It leans in a forward position has a small spur with no seam moulding (1790-1840). 1985/1/2.

143. Fragments of a nineteenth century bowl with a damaged stamp; the initials read P/S or R/S which are on a shield with three ribs on either side and three four-pointed stars above. 1985/1/2.

144. This is similar to no. 135 but has a slightly pinched longer bowl. It has a flat heel and milling around the rim (1660-1680). 1985/1/7.

145. This has a small spurred bowl which is damaged and is rim milled. It has a distorted stamp on the back of the bowl (IB). The bowl has been badly fired, the clay has turned red (1660-1680). 1985/1/7.

146. The pipe has a damaged bowl and a badly lined rim. The heel is flat and has the stamp (HL); Possibly made by Hugh Lyon of Windle (1663) (Davey 1978b) (1640-1680). 1985/1/8.

147. The bowl has a pinched mouth and a badly lined rim with a flat heel (1640-1660). 1985/1/37.

148. The bowl has a pinched mouth a flat heel and is slightly larger than no. 147. (1660-1680). 1985/1/37

149. A large thin walled damaged bowl with a small spur and narrow bore. The rim of the bowl is parallel to the stem, (1740-1770). 1985/1/45.

150. Half a white clay wig curler which is well formed and flat ended. (Around 1700). 1985/1/16.

Sugar-refining pottery (151-159)

151. Rim of Type 2 syrup jar, dark purplish red and brown fabric partly over-fired to vitrification; slightly distorted. Black glaze on interior of rim, a few small glaze spots externally. Internal surface red-slipped. 1985/1/54.

152. Rim of Type 2 syrup jar, pale creamy-pink fabric with black glaze internally. 1985/1/54.

153. Base of large Type 1 sugar-loaf mould. 1985/1/54.

154. Base of small Type 1 sugar-loaf mould. 1985/1/54.

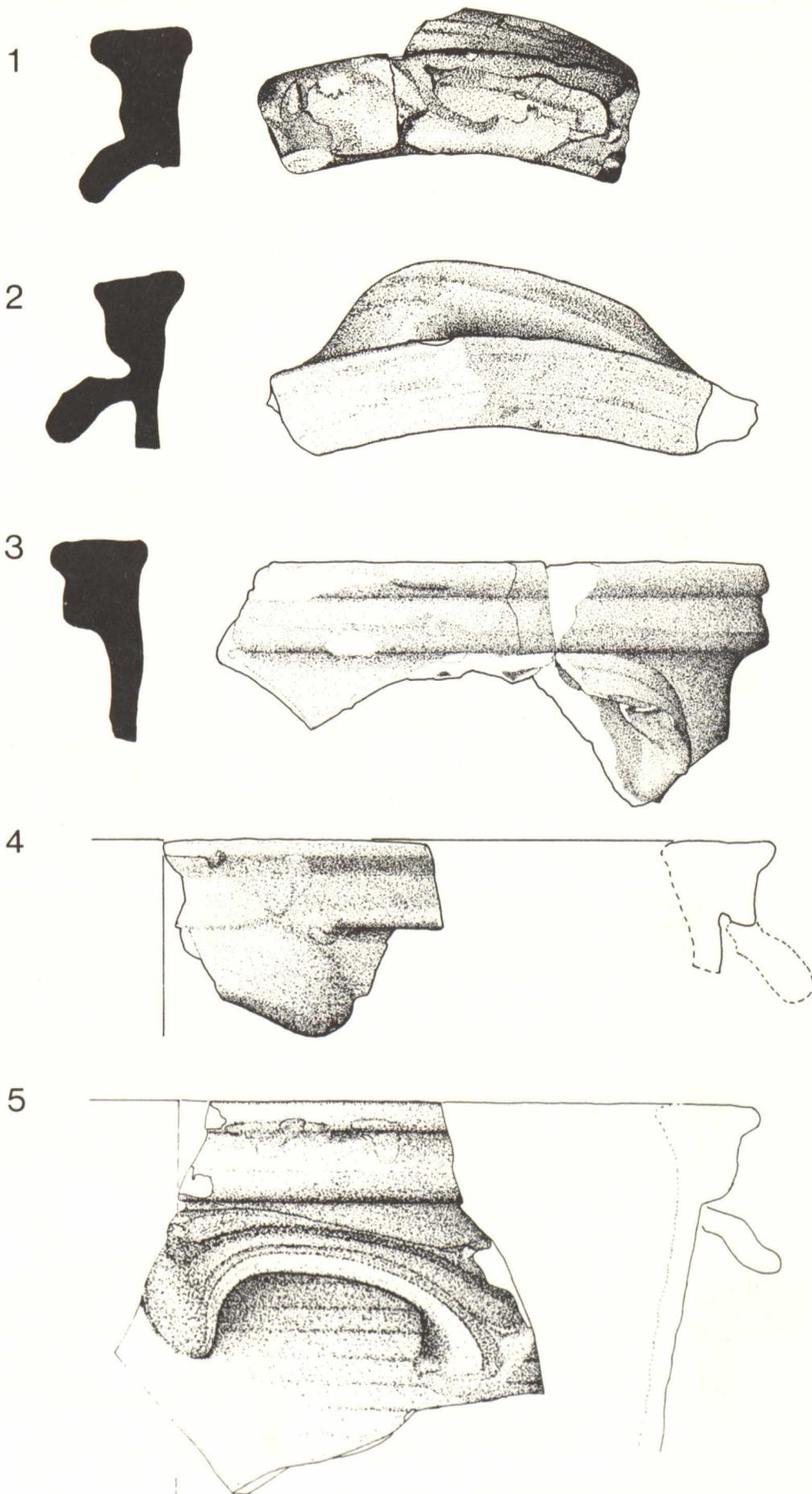
155. Rim of Type 1 sugar-loaf mould, in part overfired to vitrification and slightly distorted. 1985/1/54.

156. Rim of Type 1 or 3 (2 sherds). 1985/1/8.

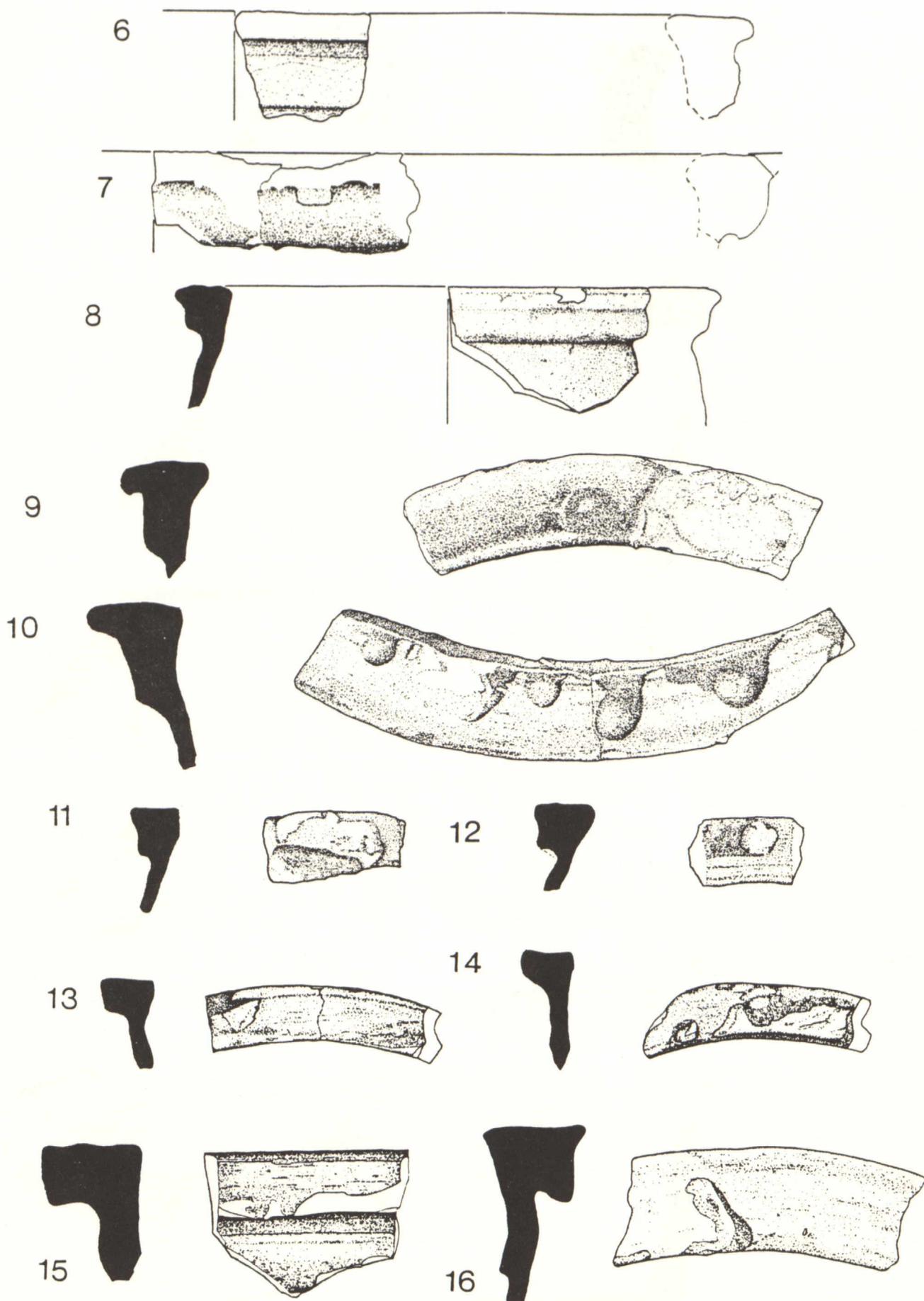
157. Sherd of Type 3 tripod vessel, with scar where foot has broken away. 1985/1/3.

158. Foot of Type 3 tripod vessel. 1985/1/54.

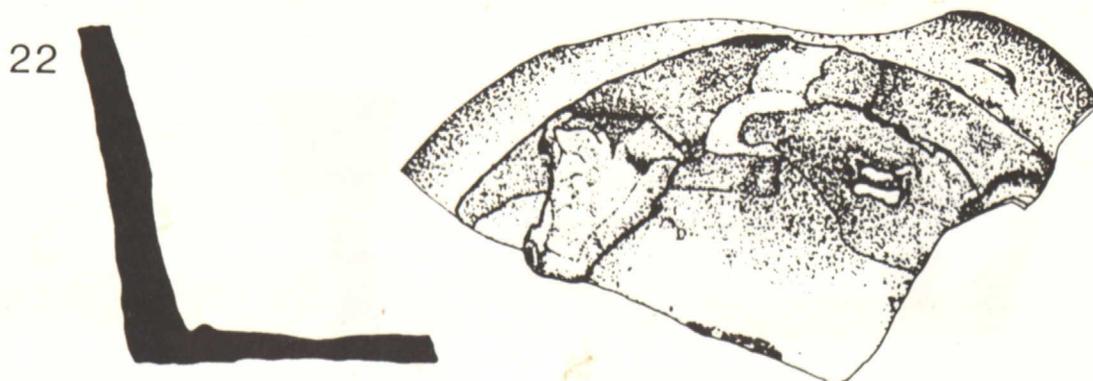
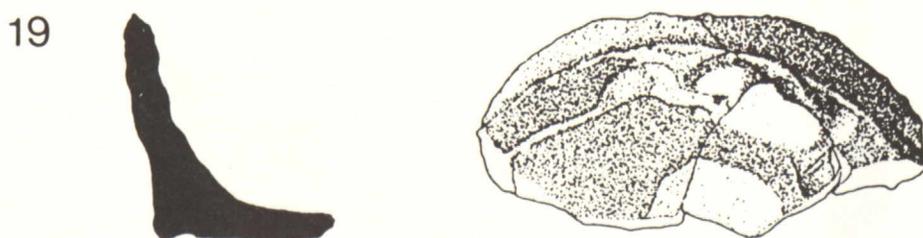
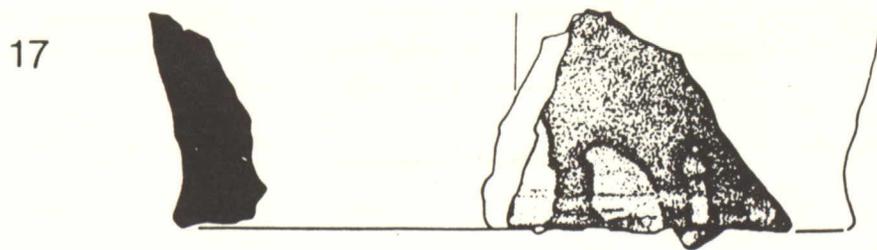
159. Rim of Type 1 or 3, with shallow horizontal grooves externally. 1985/1/54.



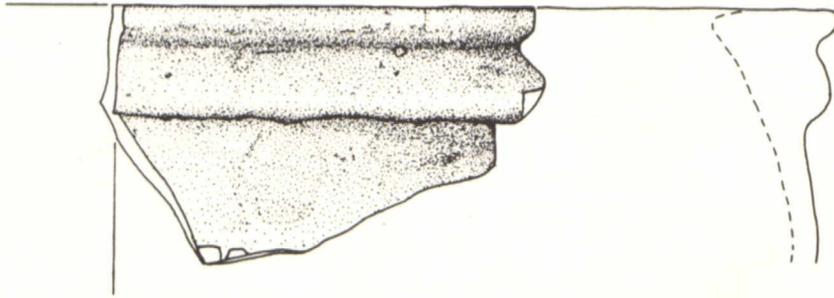
10.7 Blackglazed storage vessels. Nos. 1-5. Scale: x1/2



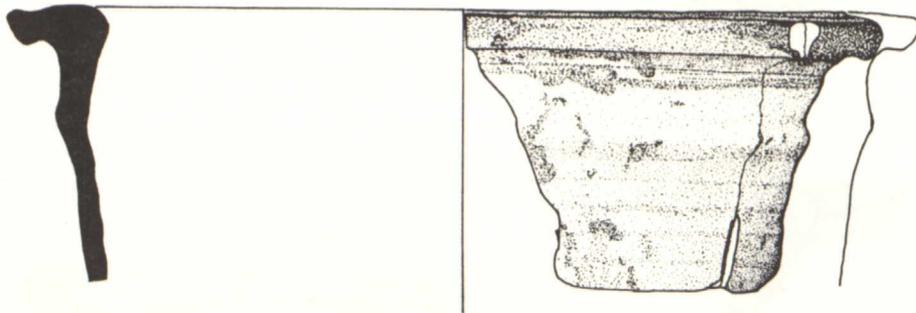
10.8 Blackglazed storage vessels. Nos. 6-16. Scale: x1/2



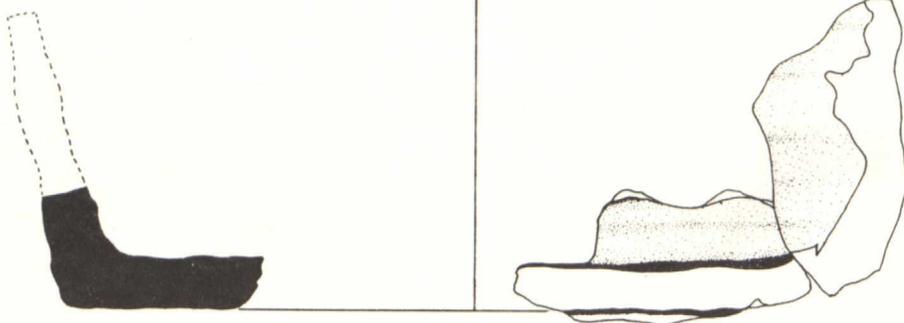
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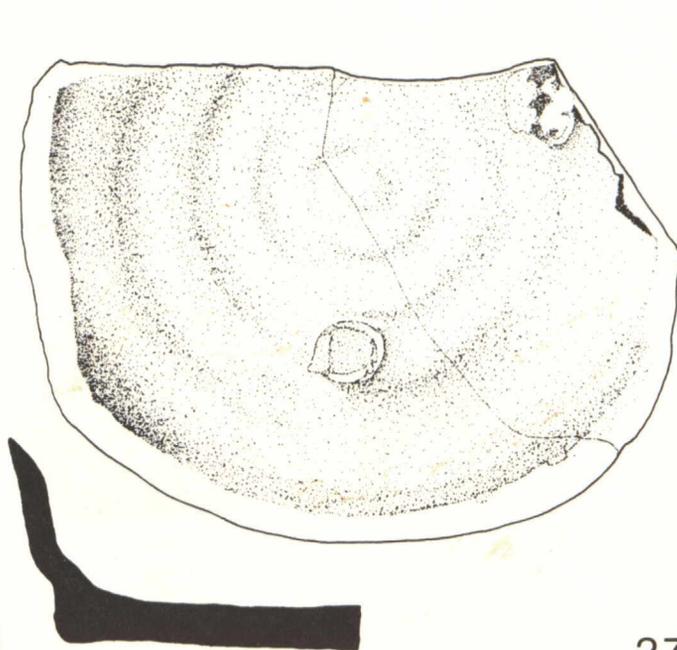
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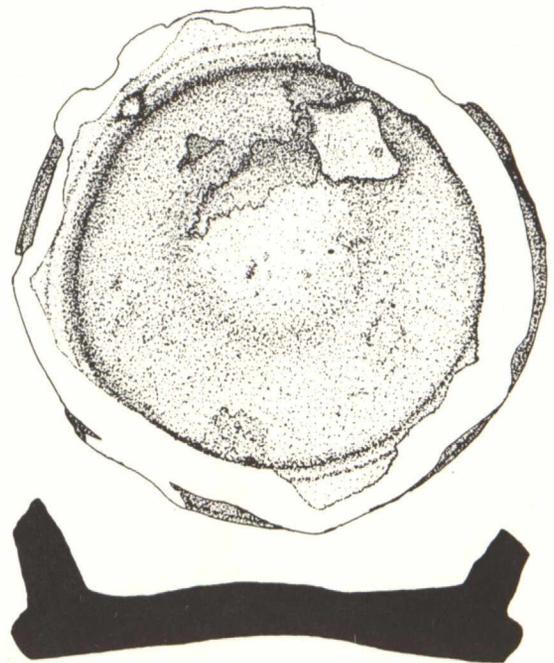
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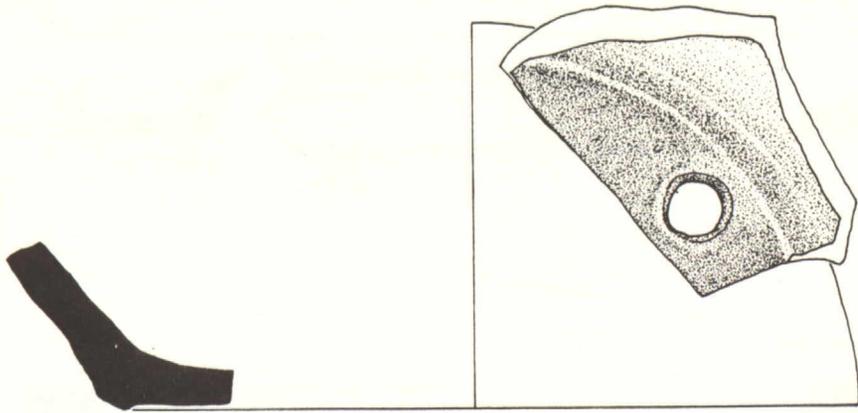
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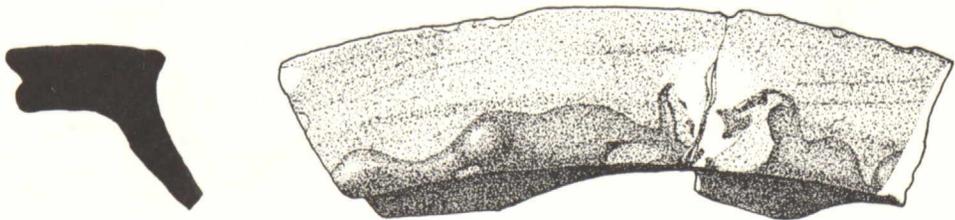
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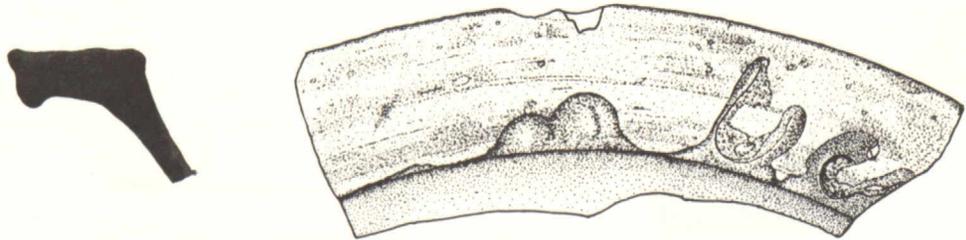
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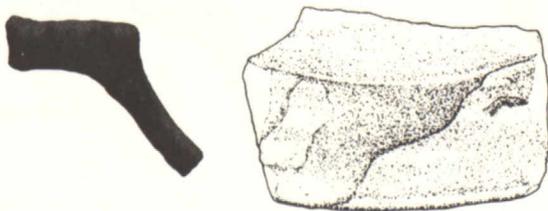
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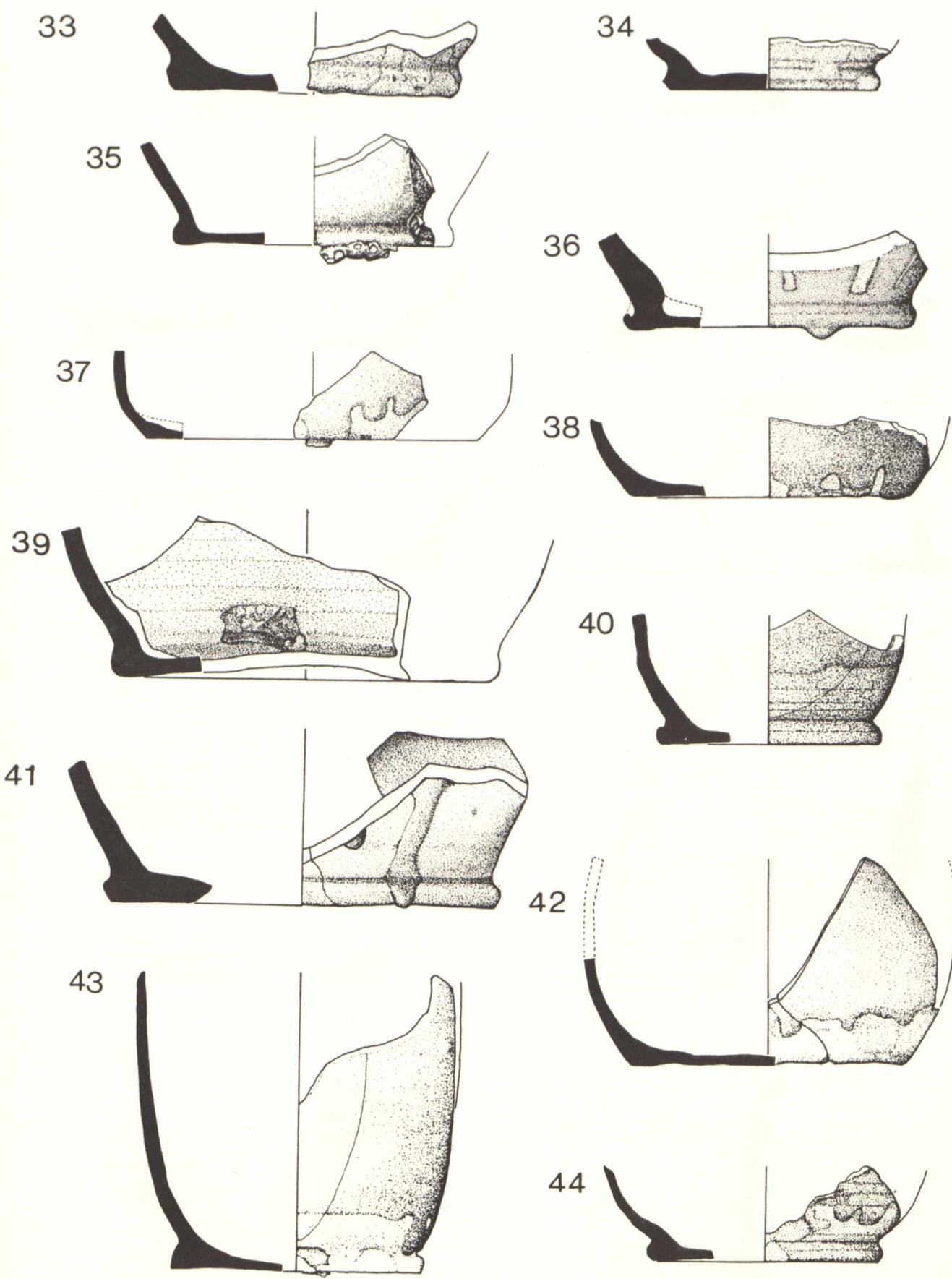
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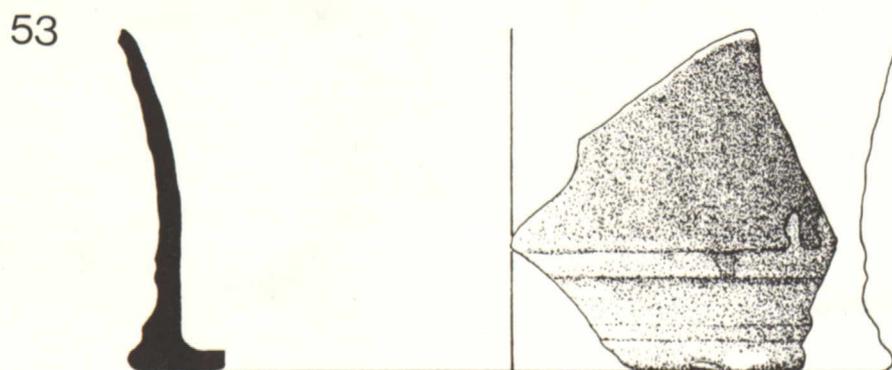
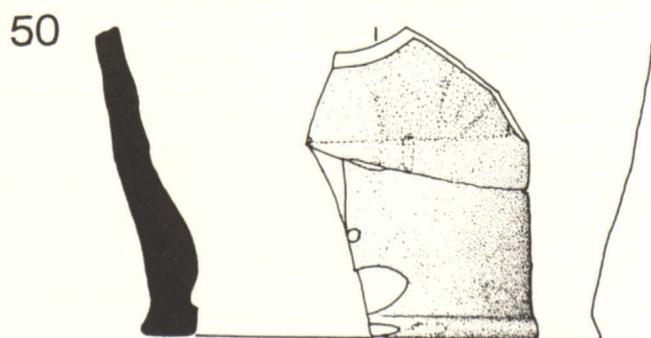
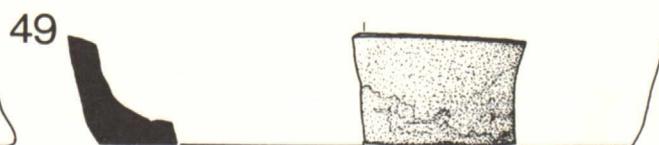
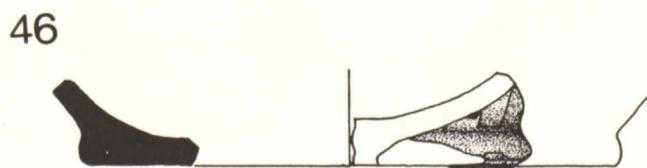
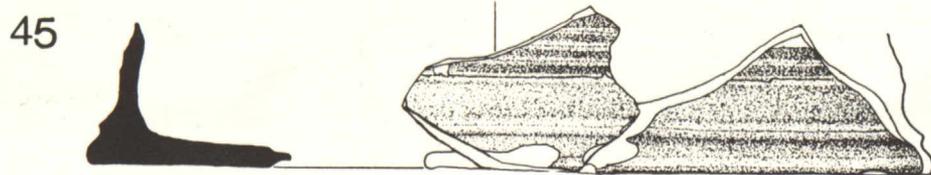
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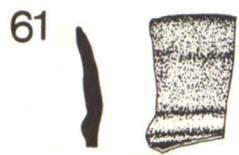
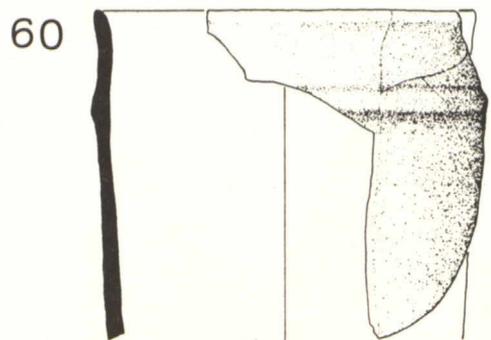
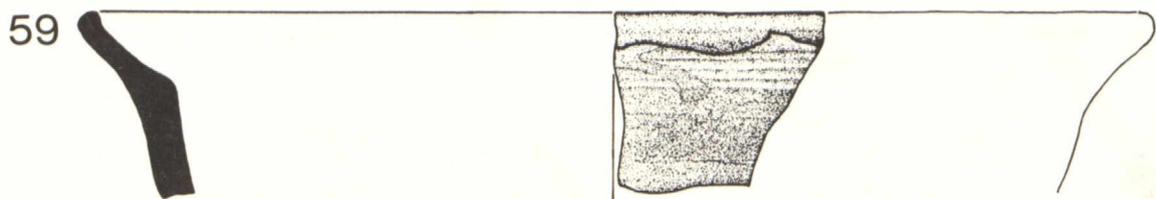
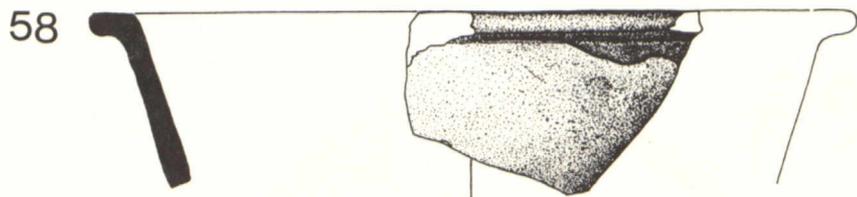
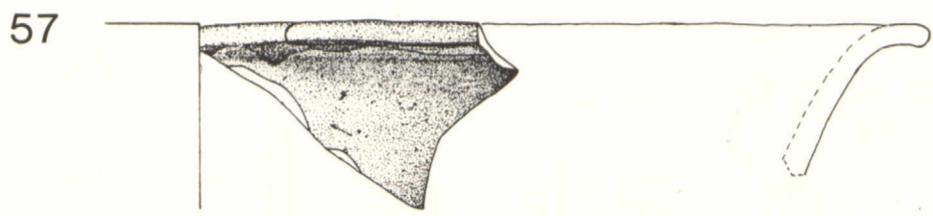
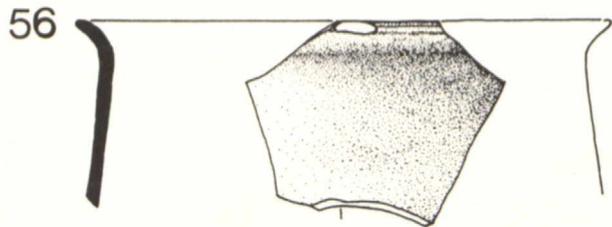


10.11 Blackglazed pancheons and bowls. Nos. 28-32. Scale: x1/2

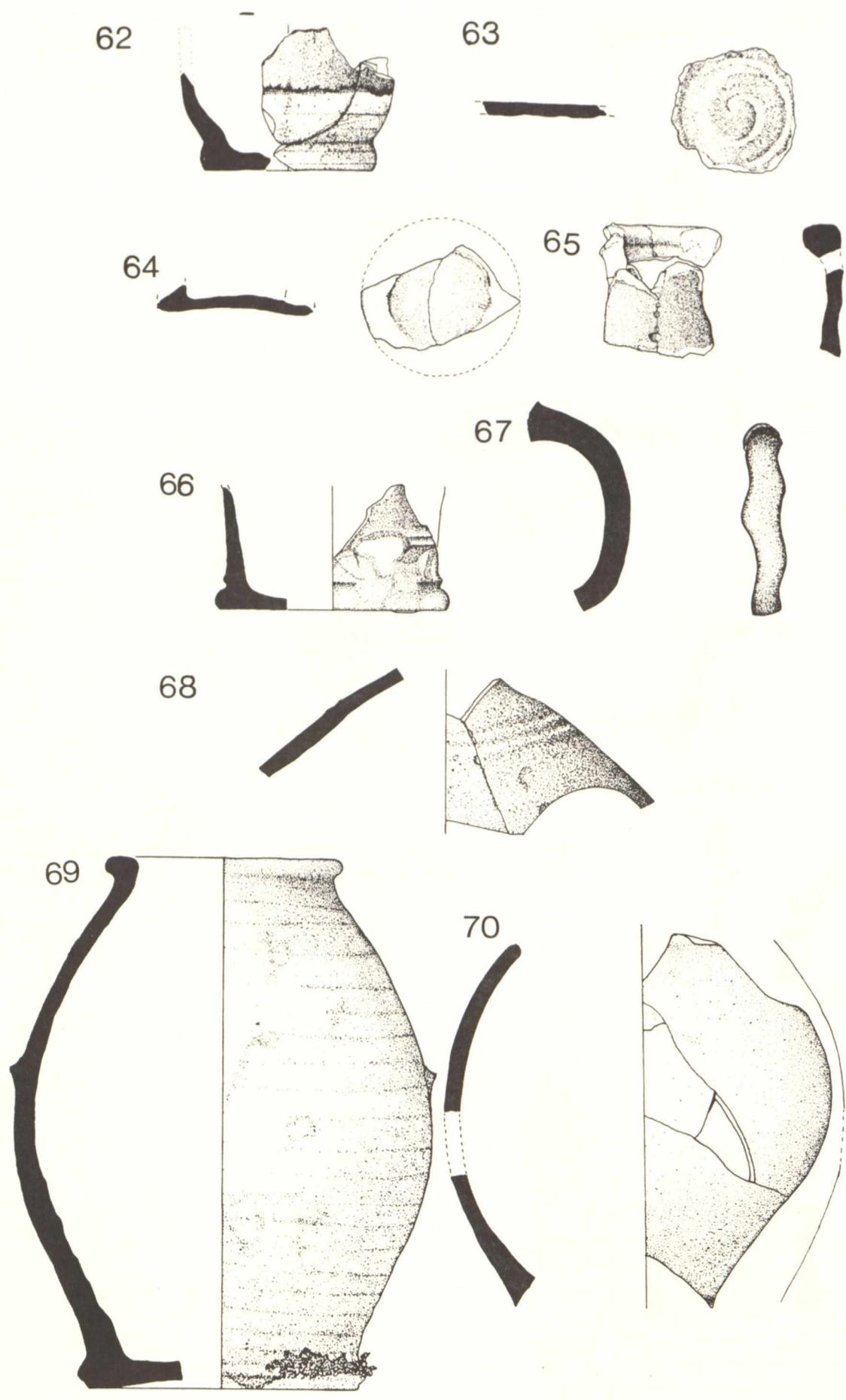


10.12 Blackglazed pancheons and bowls. Nos. 33-42. Blackglazed other forms. Nos. 43-44. Scale: x1/2



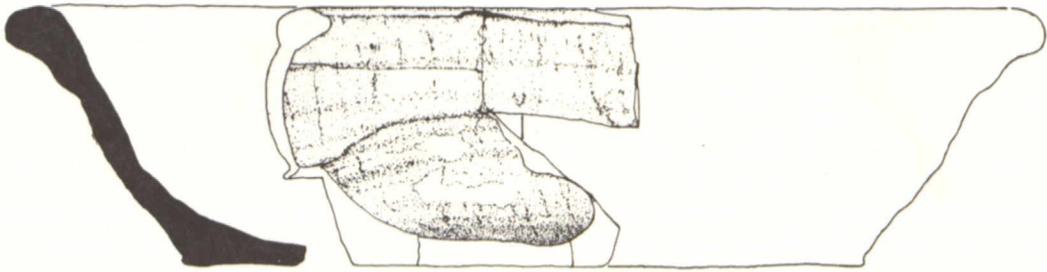


10.14 Blackglazed other forms. Nos. 54-61. Scale: x1/2

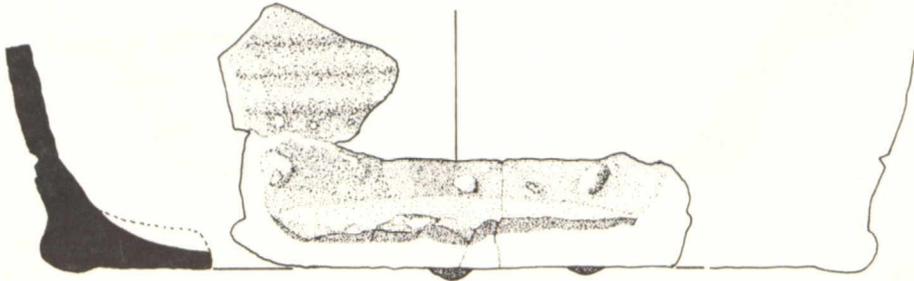


10.15 Blackglazed other forms. Nos. 62-70. Scale: x1/2

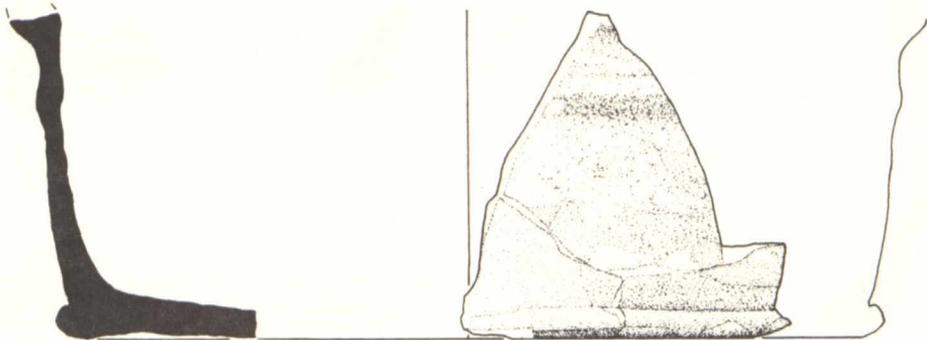
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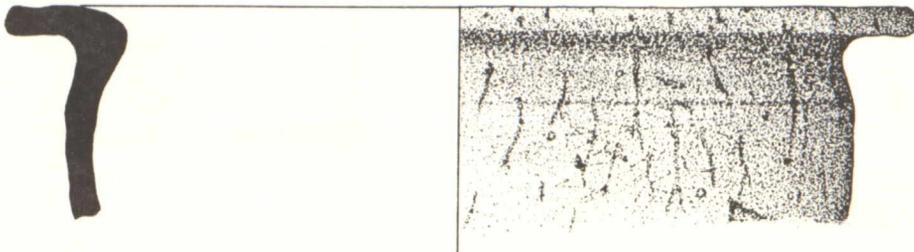
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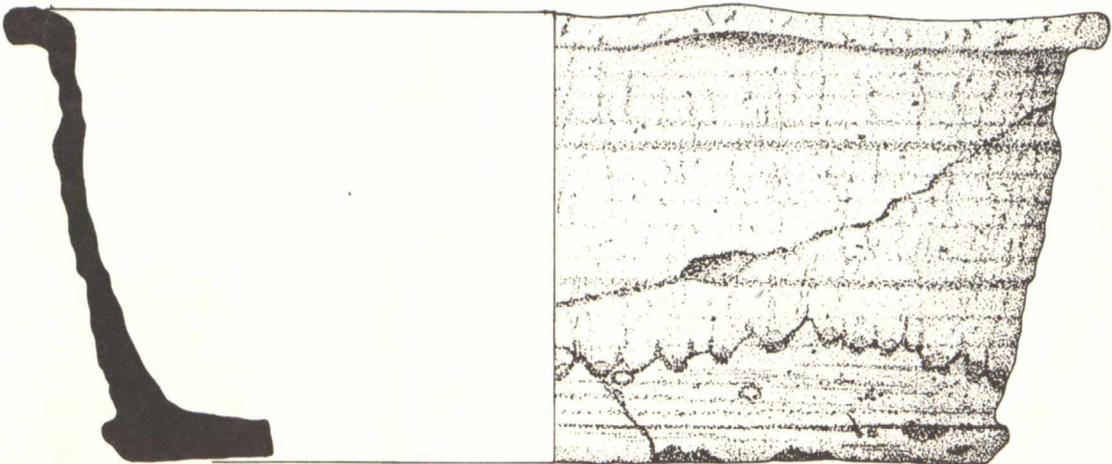
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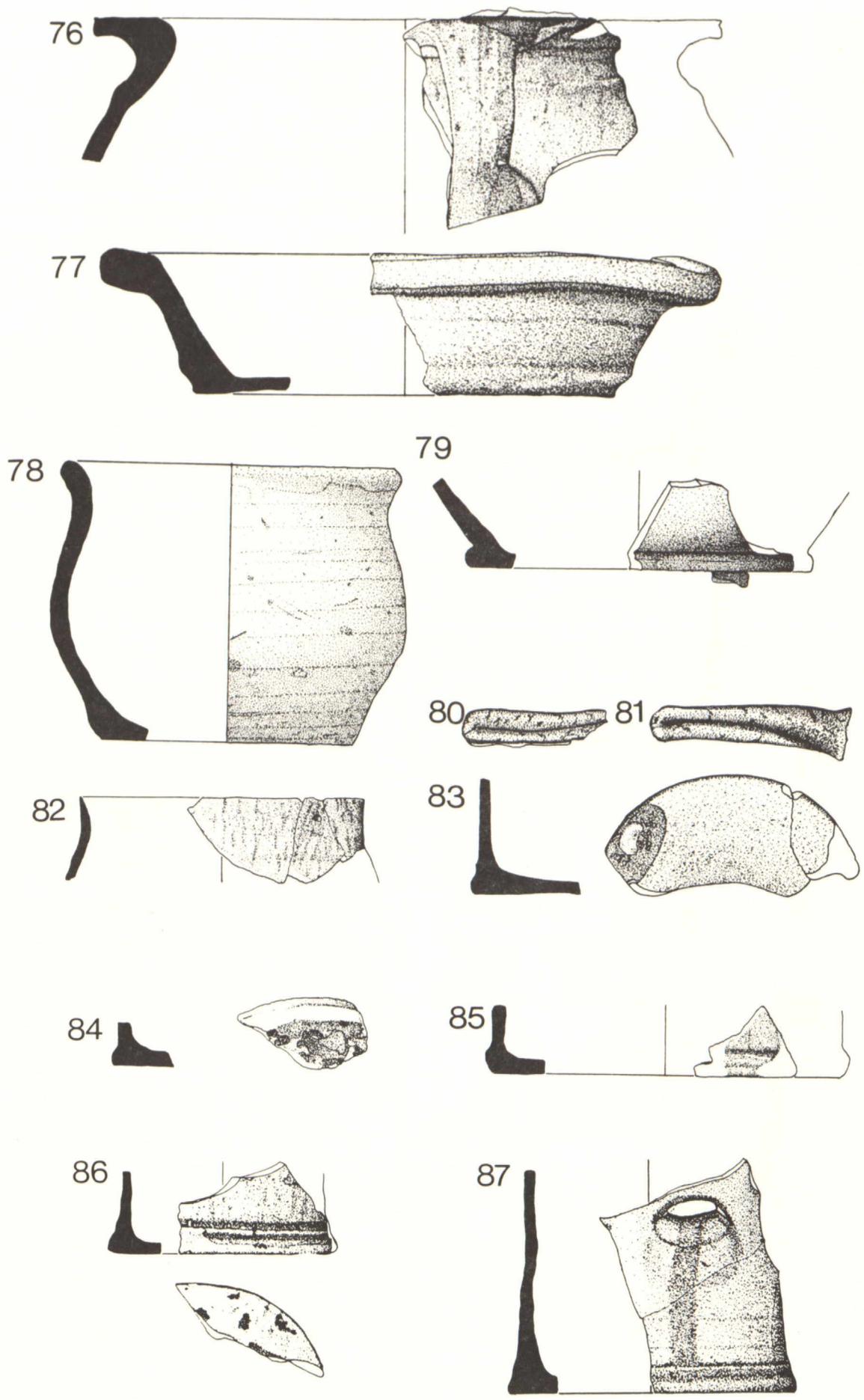
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75

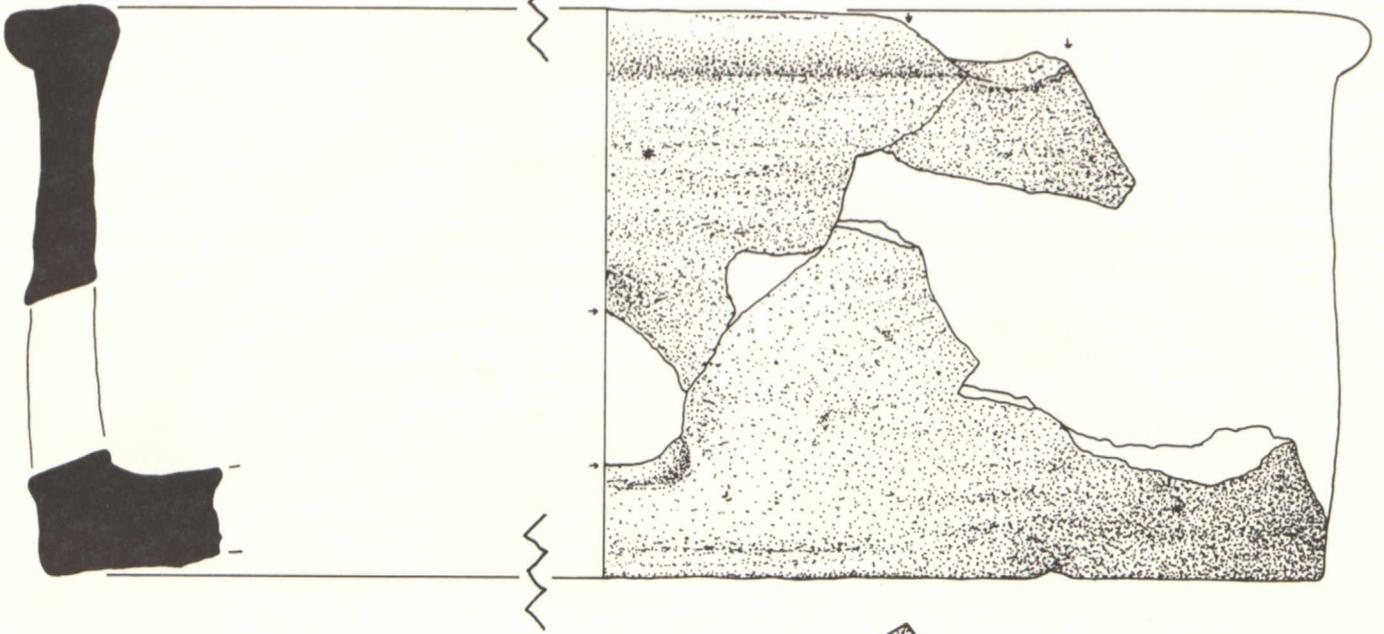


10.16 Mottled ware etc. bowls and dishes. Nos. 71-75. Scale: x1/2

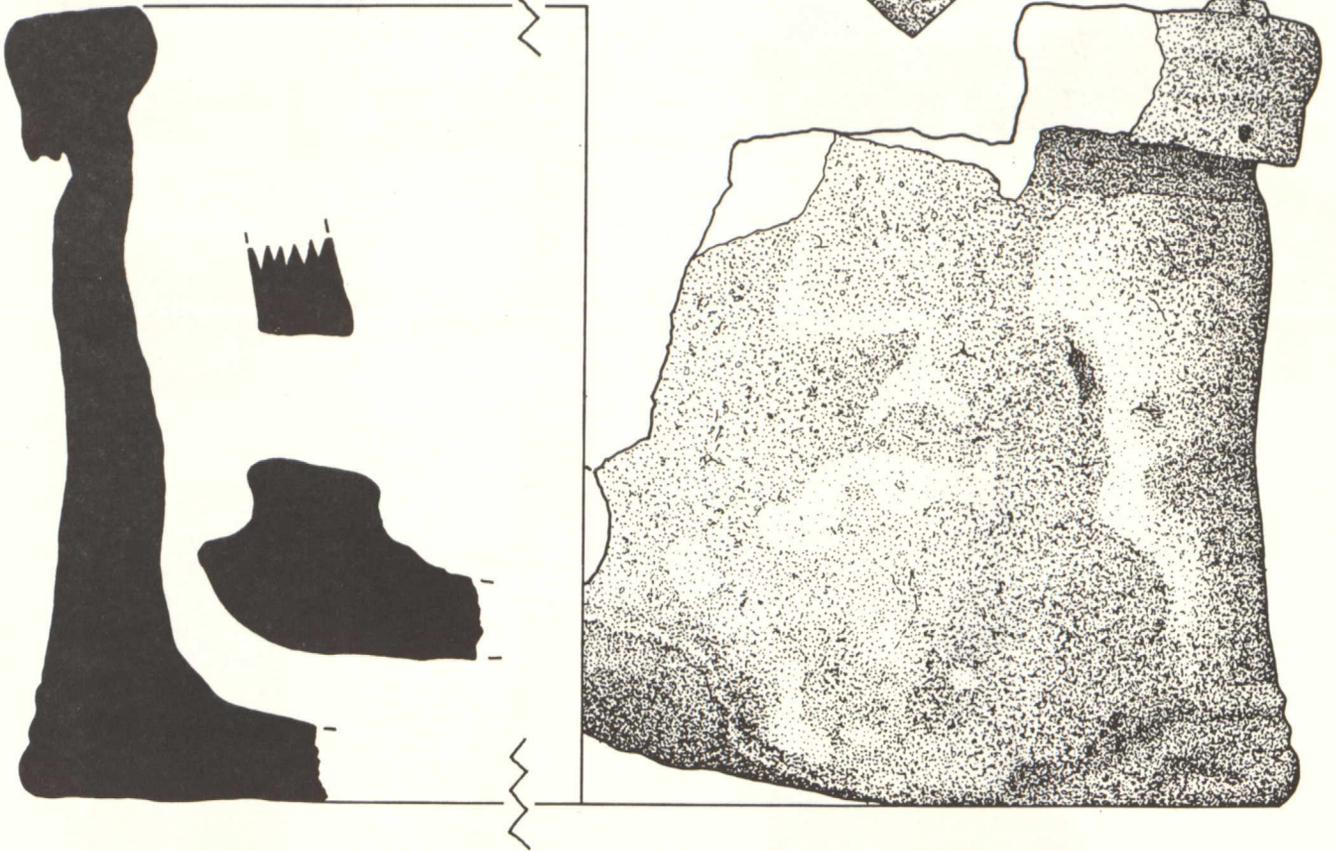


10.17 Mottled ware etc. bowls and dishes. Nos. 76-81. Mottled ware etc. beaker and tankards. Nos. 82-87. Scale: x1/2

88

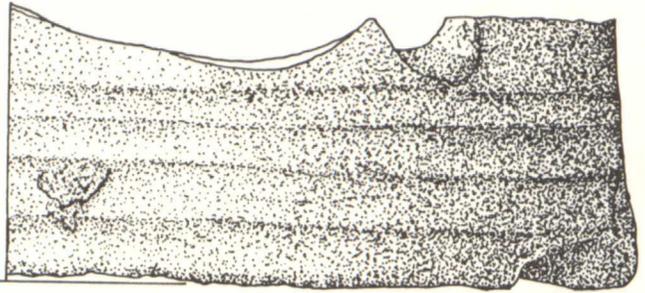
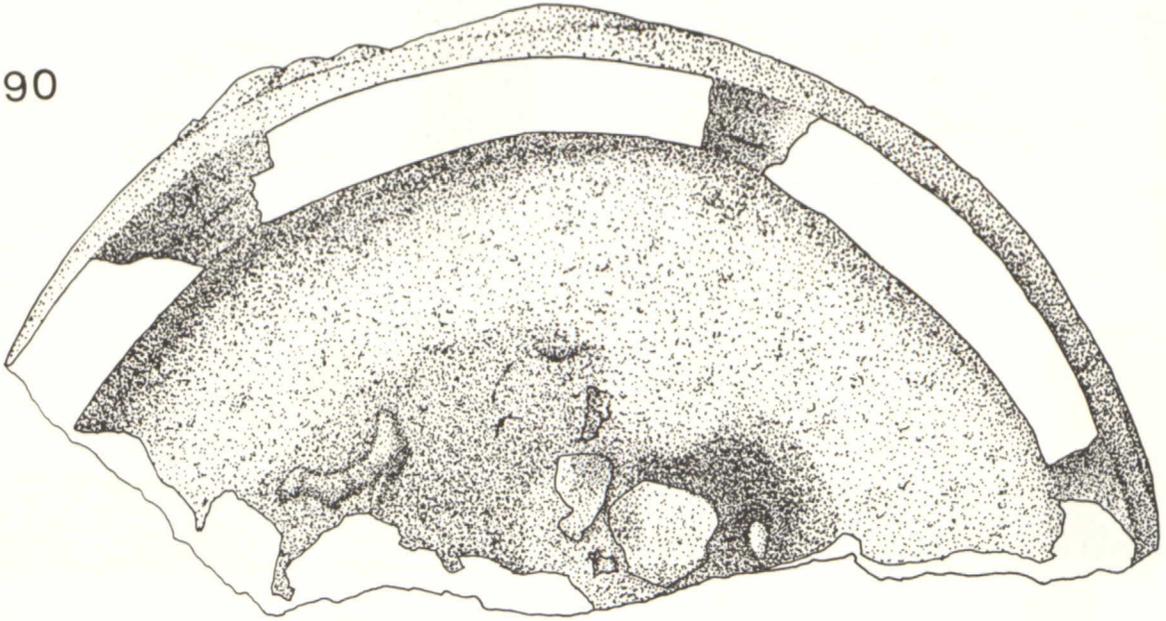


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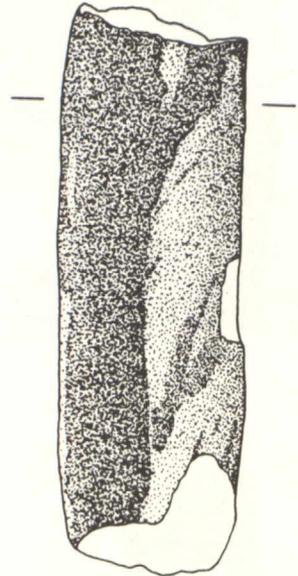
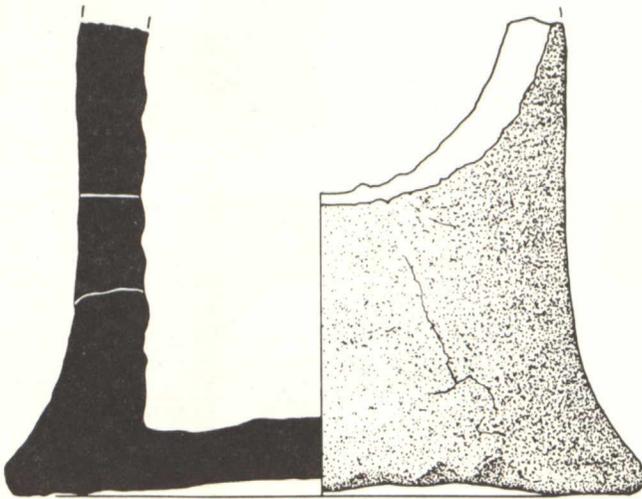
10.18 Saggars etc. Nos. 88-89. Scale: x1/2

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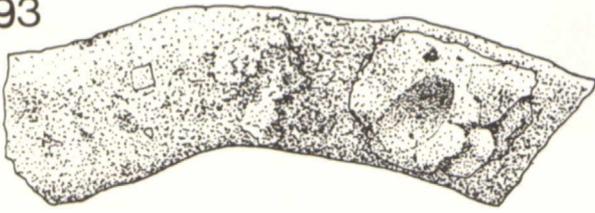


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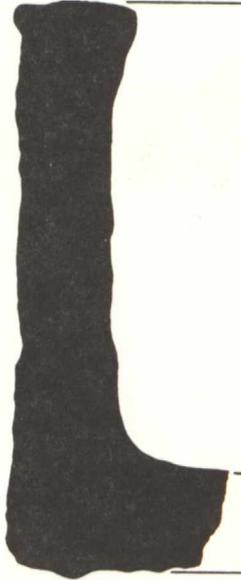
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98



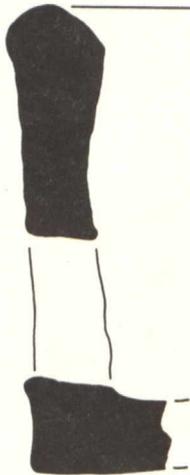
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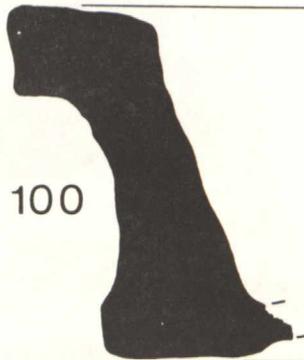
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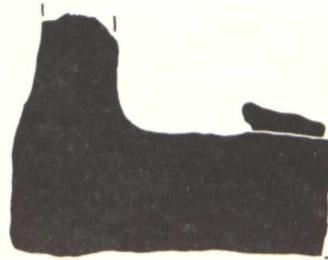
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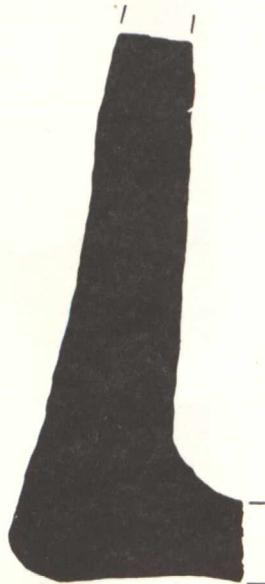
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103



104



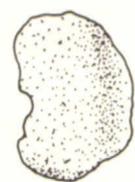
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107



108



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114



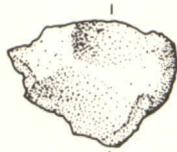
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116



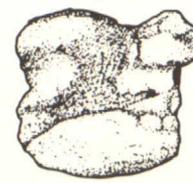
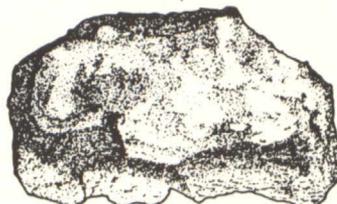
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118

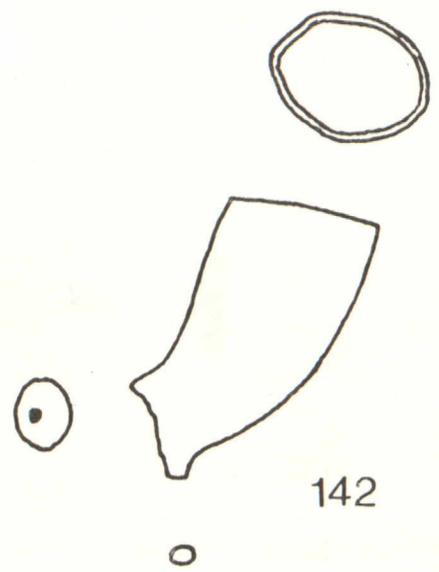
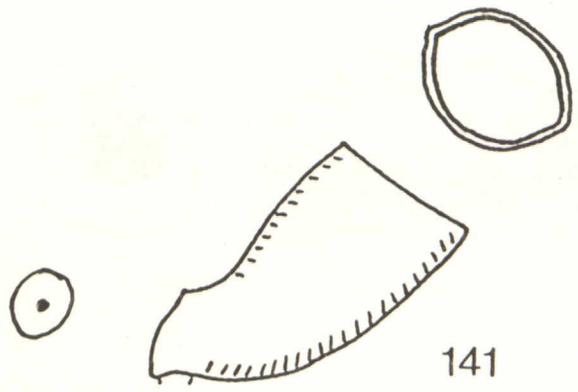
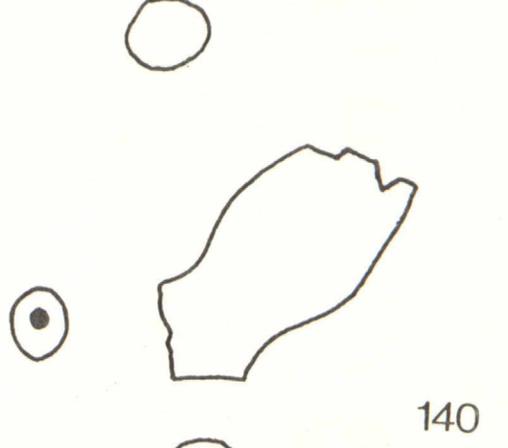
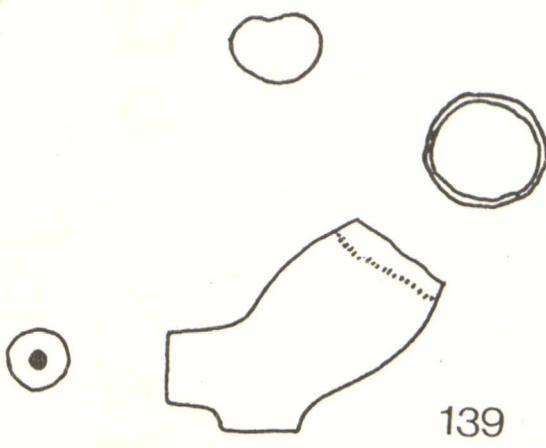
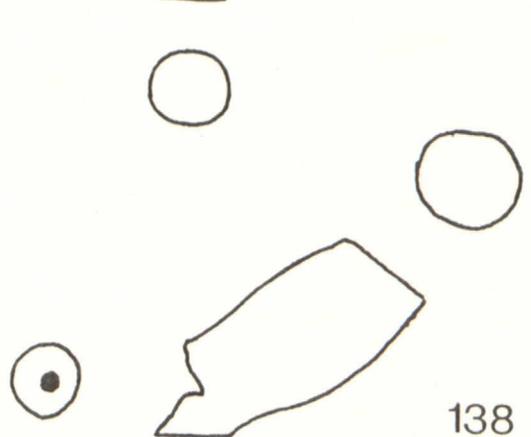
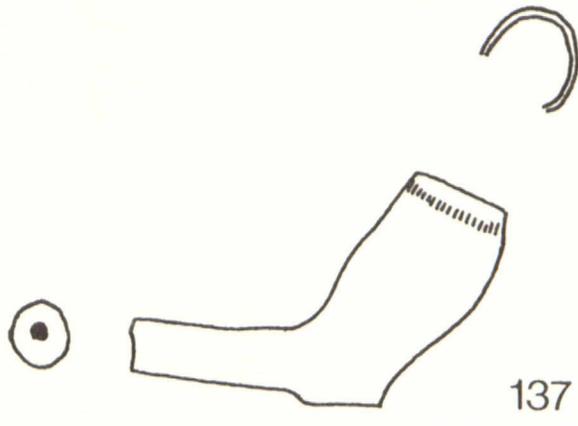
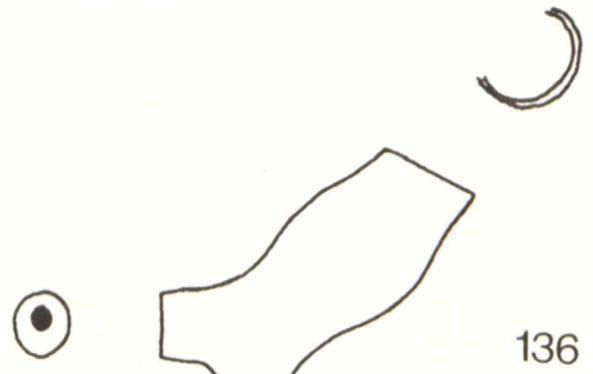
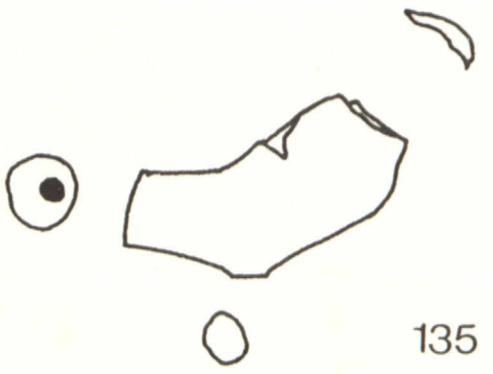


119



120

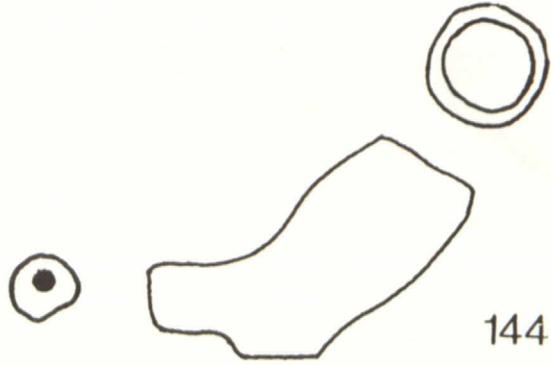
10.22 Stilts. Nos. 108-117; Bats. Nos. 118-120. Scale: x1/2



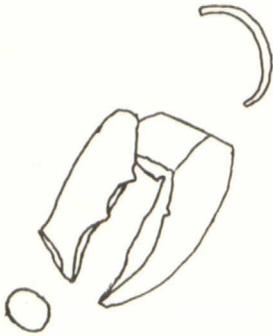
10.23 Clay pipes. Nos. 135-142. Scale: x1/1



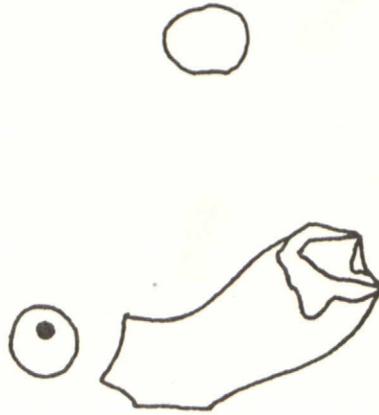
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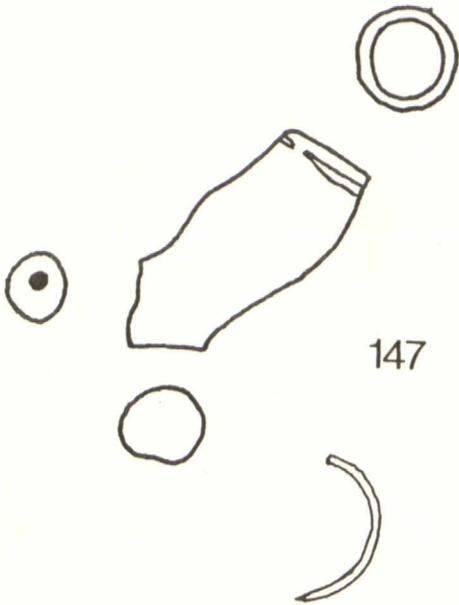
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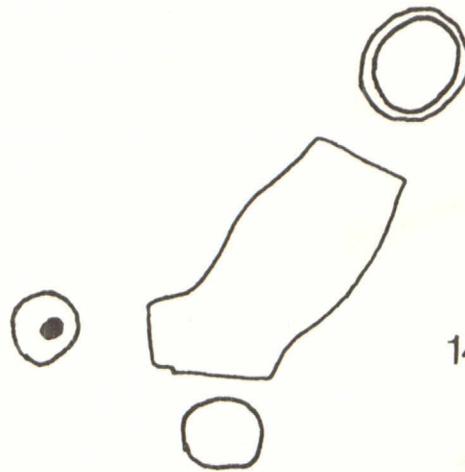
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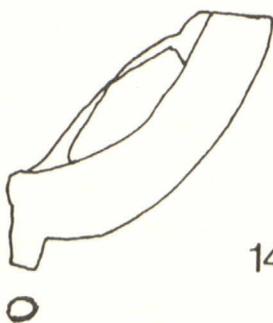
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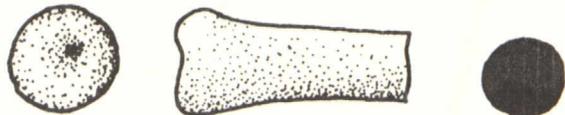
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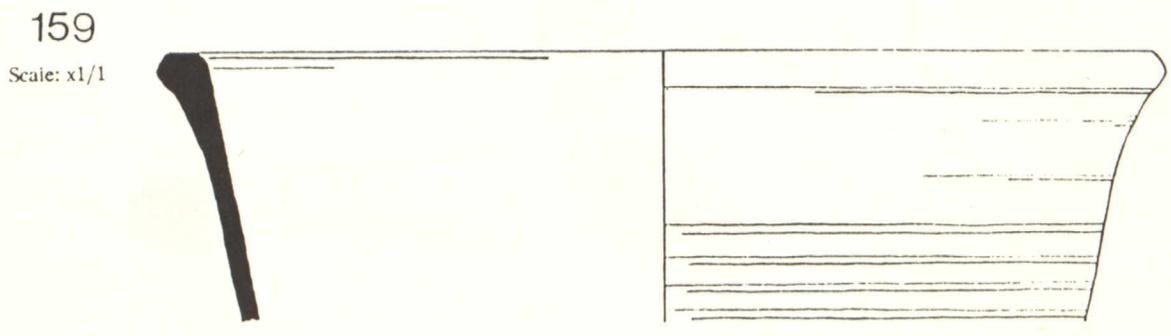
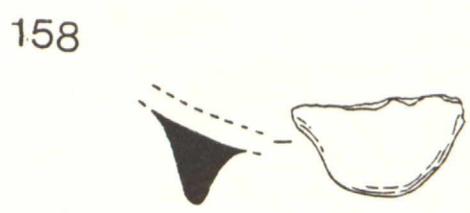
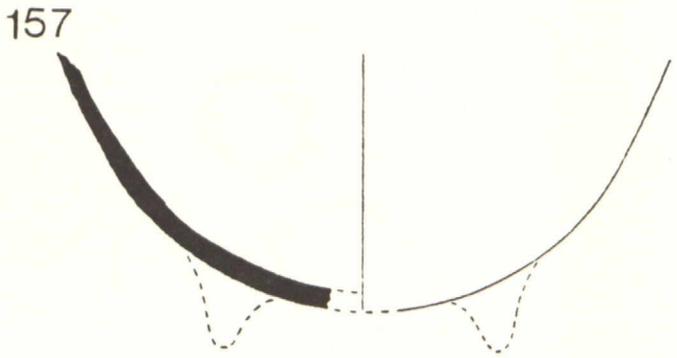
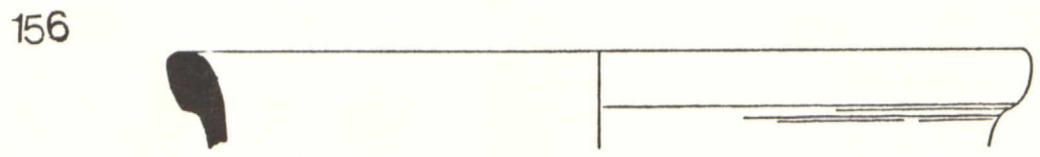
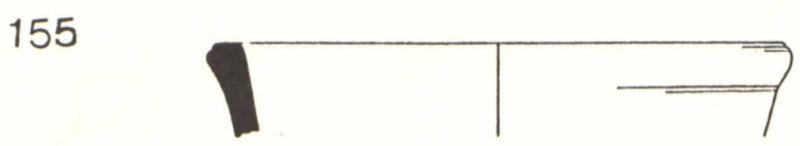
148



149



150



10.25 Sugar refining pottery. Nos. 151-159. Scale: x1/3