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## Cover photographs

Top left: Aerial view of Big Lea Green Farm in 2002 before demolition

Top right: View of the main farmhouse during excavation, 2002

Bottom left: Building 6 from the south

Bottom right: The Big Lea Green farmhouse c. 1903

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# **A Yeoman Farm in St Helens**

## **Excavations at Big Lea Green Farm, Sutton, 2002**

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**With contributions by**

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R. A. Philpott and E. Simmons

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The site archive for the evaluation, excavation and building recording at Big Lea Green Farm, including the finds, is held by National Museums Liverpool (Accession Number LIV.2003.49).

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## Summary

In 2002 the construction of a regional distribution centre by Somerfield plc provided an opportunity for archaeologists from Liverpool Museum to excavate and survey a late medieval and post-medieval farm at Lea Green, near St Helens. Documentary research had already established the occupation of Big Lea Green Farm during the late 17th century by Bryan Lea, 'yeoman of Sutton', and it probably corresponded to lands held by Thurstan de Standish in the 14th century. The archaeological evaluation identified single sherds of pottery dating from the 13th or 14th century. The continuous habitation of the site was briefly interrupted in September 1940, when the farmhouse was badly damaged by German bombing.

The medieval occupation of the site was attested to by a small assemblage of pottery from the 13th century onwards, which was present as a residual component throughout the sequence. Structures from this period were largely truncated by later redevelopment of the site. The earliest post-medieval deposits were a series of 16th-century pits containing waterlogged material including horn, leather, animal hair, antler, well preserved seeds and wood fragments.

A large stone-built, cellared farmhouse, barns and a coach house were built in the 17th century associated with several ditches reflecting a re-organisation of the farm. An associated enclosure ditch was later backfilled prior to 1720 with a large assemblage of domestic pottery including residual Cistercian wares and local coarse wares.

The 18th and early 19th centuries saw only relatively minor changes to the complex, with re-modelling of one of the barns in brick and the construction of a number

of drains. Domestic pottery continued to be deposited into a garden soil behind the farmhouse. Between 1826 and 1849 a wide shallow ditch was excavated defining the south-west corner of the farm. This ditch had the appearance of a medieval moat, but proved to be a 19th-century ditch/landscape feature.

The farm was transformed during the late 19th century (1847-1891) with the reconstruction of the farmhouse in brick, the addition of a stable block to a barn, a new open-sided 'Dutch' barn, the laying/relaying of cobbled yards and the re-organisation of an adjacent enclosure into a kitchen garden.

The farm underwent only superficial modification during the early 20th century, with alterations to the façade of the farmhouse. The farm house was badly damaged by a bomb dropped in September 1940, and was subsequently demolished and replaced by a brick-built farmhouse which shifted the principal access to the complex until its demise in 2002.

During the course of the excavation an exceptional collection of ceramics was recovered: dating from the 13th to the late 19th century, the post-medieval pottery forms an especially rich assemblage which will provide a benchmark for future work in the area. A detailed description and discussion of the ceramics is included below. A regionally significant clay pipe assemblage has been recovered and analysed in addition to horn, bone, and environmental material. The project demonstrated the potential for excavation of smaller yeoman farmsteads which were key components of the late and post-medieval rural landscape in the region and are rarely the focus of study.



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## 1: Introduction

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*A. C. Towle*

### Background

This report is a description of the excavation, building recording and subsequent post-excavation analysis undertaken on the site of Big Lea Green Farm, Sutton, St Helens, Merseyside, during 2002. The project was undertaken in accordance with a project design drawn up by Dr Mark Adams of Liverpool Museum Field Archaeology Unit (Adams 2002a) in consultation with the Merseyside Archaeological Officer, Sarah-Jane Farr, ahead of redevelopment of the site as a regional distribution centre by Somerfield plc. The site had been identified as an area of archaeological potential through a desk-based assessment (Philpott and Griffin 1997) and an archaeological evaluation (Adams 2002b). The archive of original excavation records, specialist reports, finds illustrations and artefacts are deposited with National Museums Liverpool (accession number LIV.2003.49).

### Site location and description

The development was centred on NGR SJ 511 923 and covers an area of 17.3 ha bounded by Lea Green Road, Lowfield Lane, St Helens Linkway and Elton Head Road, at an elevation *c.* 65 m AOD (Fig. 1.2). A flat-topped ridge ran north-south in the western part

of the area and the ground dropped away sharply to the east. Sandstone lay close to the surface at the top of the ridge, but was covered by Boulder Clay on the lower slopes. The solid geology of the area is characterised by Carboniferous Coal Measures of the Westphalian series (Westphalian C: Dukinfield Marine Band) (Ordnance Survey 1977). These coal deposits are known to have been exploited over a long period of time, and preparation of the ground for construction to the west of the farm required the filling of numerous voids left behind from old workings. Big Lea Green Farm was situated mid-way along the eastern boundary of the area and consisted of a complex of 18th-, 19th- and 20th-century buildings including a farmhouse and barns. The farm was situated within a sub-rectangular enclosure covering *c.* 0.7 ha which was defined by wooded areas, hedge lines and a wide shallow ditch (Fig. 1.1).

### Previous work

A desk-based assessment of the impact of the proposed redevelopment was undertaken for the client (Philpott and Griffin 1997). This found that, although no archaeological fieldwork was known to have taken place on the site, it had significant archaeological potential, including a possible medieval moated site at Big Lea Green Farm and possible prehistoric barrows at the head of the ridge on the western side of the site. The modern farmhouse was known to have had an earlier precursor, which was occupied until September 1940, when it was



*Fig. 1.1: Aerial view from north-east of Big Lea Green Farm, upper right; Little Lea Green Farm lies to the lower left; 14 March 2002. Photograph: R. A. Philpott*



Fig. 1.2: Location of Big Lea Green Farm, Sutton

badly damaged during an aerial bombing raid.

A programme of fieldwalking found no evidence for prehistoric activity within the proposed development, reducing the area of interest to Big Lea Green Farm and its enclosure (the full fieldwalking report is in the site archive). The evaluation excavation found evidence of activity on the site from the 14th to 19th centuries, including the remains of an early farmhouse (Adams 2002b). Further documentary research detailed the ownership of the farm from the late 17th century onwards, and suggested that the Lea Green land holding originated in an estate owned by Ralph de Standish in the 14th century (Lewis 2000, 351).

### **The Archaeological Background to the Farm**

Despite well established sites from the Mesolithic and later prehistory across the lowland North West (Cowell and Philpott 2000, 170-4), there is currently little evidence for prehistoric settlement or activity in the wider area around Lea Green. Pollen samples taken from Parr Moss to the north east of the area under investigation demonstrate little variation in vegetation during the prehistoric period (Chitty 1981, 7-9). The dominant picture is one of dense deciduous woodland suggesting minimal human impact upon the landscape with evidence for only short term clearance and forest regeneration (Innes and Tomlinson 1981, 2-10). The early clearance periods are not characterised by arable farming, suggesting that human activities may be limited to a pastoral regime (Innes and Tomlinson 1981, 15), and the first evidence for cereal crops occurs in the Late Bronze Age/Early Iron Age (Cowell and Philpott 2000, 170-1). The pollen sequence from Parr Moss is not correlated to culture-historical periods, and in the absence of material recovered from adjacent well dated archaeological deposits, must remain a schematic outline.

The problems of archaeological visibility for all periods in the region have been discussed at length elsewhere (Cowell and Philpott 2000, 215-6), and it must be noted that an absence of documented sites does not necessarily reflect a lack of occupation for any specific period. The area around St Helens suffers from the impact of later industrialisation which has involved the urban development of a significant proportion of the land surface, coupled with the extraction of coal, sand, clay and sandstone which will also have removed archaeological traces. The extraction of sand for the glass industry has also removed the land surface from the most likely zone for the earliest occupation (Ron Cowell pers. comm.).

Nonetheless, the paucity of material relating to early settlement in the area of Lea Green (which is located on boulder clay) must indicate a less intensively occupied landscape than elsewhere. The sparse record of landholdings for the region between the Mersey and the Ribble in the Domesday Book would tend to

substantiate this picture of small dispersed settlements during the later Anglo-Saxon period. The formation of the parish structure, containing several townships, demonstrates a low population density during the medieval period. Lea Green lies within the township of Sutton, in Prescott parish, which was part of the West Derby Hundred described in the Domesday Book. The limited post-Conquest documentation for the region suggests that only a small proportion of the available land was under cultivation (7-10%), the rest being woodland (Chitty 1981, 23-4).

However, the pollen record suggests that by the 12th century, mixed arable farming was well established in the vicinity of Parr Moss (Lewis forthcoming; Cowell and Innes 1994, 176, 179, table 15). Sutton is listed as being within the jurisdiction of 'Forest' law (part of the forest purlieu of the royal forest of Lancaster) in 1334/6 (Chitty 1981, 24).

There was no village or nucleated settlement in Sutton until the development of the town of St Helens during the industrial revolution: the township was characterised by a dispersed settlement pattern in the medieval period. In common with other townships near St Helens, the main form of settlement was the small discrete estate. Several of the separate estates in Sutton which can be traced in post-medieval documents had their origin in the medieval period, such as Burtonhead or Eltonhead (Chitty 1981, 28-30). The formation of estates contrasts with nucleated settlements associated with open arable field systems which are the classic medieval settlement pattern seen in central and southern England. The farming of discrete estates is regarded as a more flexible form of land use, and is a consequence of lower population densities, unable to support communal ploughing teams (Cowell and Philpott 2000, 205). The pattern of landholding which developed in the St Helens area may also have been the consequence of increasing the size of holdings with clearance of woodland as opposed to the intensification of land use

### **The Lea Family and Big Lea Green Farm**

The place-name Lea Green is probably derived from *lēah*, an Old English word meaning a clearing in a wood. The Lea Green estate may have originated as a Lea or Ley holding which emanated from that of Richard de Standish, who held property in Sutton in 1376 (Lewis 2000, 351). In the time of Edward VI (1547-53) Edmund Ley of Sutton and his wife, one of the daughters of, and heirs of, Thurstan Standish of Sutton, complained she had been dispossessed of certain lands which were her share of her father's property.

### **Lea Green and the Lea Family**

The Lea/Ley family of Sutton are recorded in documents of the 16th and 17th centuries but the precise family

relationships are not clear. The family name may be derived from the place-name Lea Green. A Hugh Ley, aged 66 in 1588, had two messuages in Sutton, one called Smith's House, the other Lowfield House (St Helens Library Duchy of Lancs Pleadings and Depositions 30 Eliz 23/9/1588) (a messuage is a house, its outbuildings and yards). It is difficult to establish for certain the early Lea family's residence at Big Lea Green Farm: however, inhabitants of Sutton descended from the Leas are documented as owning the farm during the 18th century.

Goods	Recipient	Relationship to John Leye
10s	Free school of Prescot	
Glass ware	Unnamed	Wife
Tables		
Stools		
Chairs		
Iron grate from parlour		
Great Chest		
Other chest in kitchen		
20s	Poor of Sutton	
10s	Poor of Prescot, Rainhill and Whiston	
Birding piece	Bryan	Cousin
Spurs	John Leye	Tenant
Saddle		
Saddle		
Best doublett		
Best breeches		
Horseman's coat		
Fustiane breeches	Robert Cowleye	
Cloak	Richard Rylands	Loving neighbour
Best hat		
Rest of clothes	John Woodcocke William Sutton Richard Stringfellowe	
Hose	Margaret Waltone	
Shoes		
6s 8d	John Holland	Godson
6s 8d	Hughe Leye	Godson
6s 8d	Raphe Fenneye	Godson
6s 8d	Margaret Leye	God daughter
2s	all other god children	
2s	to each servant	
1 windle of barley	Elizabeth Brooke	
1 young nag	Roughleye	Brother in law
1 bull calf	John Ditchfield	Cousin
1/2 remaining estate	Richard Roughleye	Brother in law
1/2 remaining estate	Ellin Leye	Daughter or adopted daughter

Table 1.1: Summary of goods distributed according to the will of John Leye, Yeoman of Sutton, drawn up 22 August 1612, executed 9 September 1612

In 1600 one John Leigh was recorded as a freeholder of Sutton (Farrer and Brownbill 1907, 361 n. 12). The Lancashire Record Office has wills of John Ley of Sutton, dated 1612 and John Ley of Sutton dated 1624. A full transcript of the 1612 will is included as an appendix (Appendix A.1), with a summary of its contents below (see Table 1.1), and it gives an insight into the wealth at the disposal of a yeoman farmer of the time. Unfortunately, there is no systematic account of the property or layout of the buildings, with only two rooms mentioned (the parlour and kitchen). The variety of property suggests an individual of some substance, including glass tablewares and a range of furniture. The will indicates that he let land and maintained at least one servant. There is only slight evidence for the agricultural regime, with a horse and more than one bull listed as the stock, and barley as a cereal crop. It is difficult to appreciate the full scale of the estate being distributed in the will, since it states that the remaining unlisted property should be split between John Leye's brother-in-law and daughter. There is an intriguing caveat attached to his daughter's inheritance: it is void if she should marry a William Tunstalle, Yeoman of Sutton.

1 nag
1 mare
Corn in the barn
Hay
Cart, wheels
Plough tresses
Saddle and bridle
Brass items
Pewter items
Bedding
Napery
Sacks and pookes [bags]
Joined timber
Bedstocks
Contents of a coffer
Cupboard, dishboard and sawn boards
Cooper's ware [wooden vessels]
Chairs, stools and cushions
Ironware
Earthenware pottery
Wisks and sieves
Poultry
Ladders and brakes [implement for dressing flax]
Stone troughs
Cheese press
Fuel
Salt flesh
Meal
Leather clothes

Table 1.2: Probate Inventory for John Lea of Sutton taken on 31 January 1623/4 (for complete list with values see Appendix A.2).

The will provides some indications of family connections, recording that John Lea had two brothers, Hugh and Richard, the latter already dead by 1612. The Hugh Lea/Ley could be the same individual as mentioned above in Sutton in the late 16th century. Richard Lea, had a son Robert. John also mentions a 'cousin' Bryan Lea.

Shortly afterwards we have a probate inventory for a John Lea of Sutton, dating from 1 January 1623/4. It is not possible to determine if it is the same family or property being discussed. This list does give a wider range of material including evidence for cheese-making, the processing of flax, the storage of corn and hay as well as three cows and two horses (Table 1.2 and Appendix A.1).

A series of disputes in the early 17th century shed the first documented light on the landscape of which Lea Green was a part. 'Lea Greene' was mentioned in a list of commons and wastes in Sutton in a deposition of the Duchy of Lancaster (Lancaster Records 9 Charles I, no 9, 18 April 1634). Amongst the 'complainants' was Robert Lea, along with Richard Eltonhead, John Woode, John Barnes, Richard Roughley and Edward Roughley. In the document they were all described by John Justice as seised of 'certain ancient messuages, lands and tenements within Sutton, of some estate of inheritance'.

A Richard Lea is recorded in Sutton in 1620 (Duchy of Lancaster Decrees 28, Folio 310d). The free tenants of Sutton complained in 1620 that Sir Richard Bold was claiming to be lord of the manor of Sutton and had enclosed areas of wastes and commons in Sutton, and the enclosures were in the possession of Richard Lea and 25 others. As a result the freeholders claimed that they were denied the use of the common. The enclosures were made by Richard Bold and his uncle. One John Lea was an undertenant of Richard Bold and was named as a defendant in the same document.

The John Lea mentioned above had a tenant, also John Lea, who was presumably some relation. This could be the same person as the John Lea and his wife Anne who are recorded on a list of recusants and non-communicants not contributing to the rates (NA E179/131/318) in 1626-7 for Sutton in West Derby Hundred. The recusant toll for West Derby Hundred of 1641 also lists John Ley senr (Gregson 1900). Brian Lea was listed with one musket in Wm Norres's 'Account of the Several Forces Mustered by my Warrant at Childwall Hill', on 21 September 1624 (Aston Trust Papers AB: 18(a) fol. 6); the same document has 'the heir of Jo. Lea with one musket', 'ab' in margin).

A court case of 16 February 1632, Eltonhead v Bold, has a list of the allotments on Sutton common and waste made to the freeholders. In this document Richard Bold was accused of preventing Robert Lea and others of

enclosing the parcels of common and waste belonging to them but not yet enclosed. Bold also was accused of extracting coal from the land and leaving dangerous coal pits: cavities were identified and filled as part of the recent development programme.

An inquisition post mortem of Richard Bold dated 18 April 1636 lists the Sutton tenants of Richard Bold of Bold, and includes Richard Ley (Duchy of Lancaster Inquisitions Post Mortem Vol 27 no 58).

The earliest direct references to the Lea Green estate place it in the ownership of Bryan Lea, 'yeoman of Sutton' during the late 17th century. Bryan Lea was probably the same individual in Sutton who is recorded in the hearth tax between 1662 and 1673: in 1662 as having one hearth; the same document records a Christopher Lea as having one hearth (NA E179/250/6). In 1663, 1664, 1666 and 1673 Bryan had two hearths (NA E179/250/8, 9 and 11; E179/132/355); in 1663 and 1664 a Thomas Lea is also mentioned. By 1673 Christopher and Thomas Lea are no longer mentioned; there is an entry for 'Margaret Lea now Rich. Lea 1' (NA E179/132/355). It may be significant that Margaret, Richard and Christopher Lea are all recorded as children of one John Lea of Sutton, born between 1609 and 1624 in the Farnworth Parish Registers. Bryan Lee of Sutton was party to a lease and release of land in Sutton dated 24 April 1693 (Lancs RO DDP 104/1). Bryan Lea also occurs in Papists' estates of 1717 with 'land held in tenure of George Swift, held expectant on determination of lease by father Bryan Lea 2 February 1698/9 to James Barton for lives of himself etc' (Sharpe France 1945, 130).

Katherine Hawarden, the daughter of Bryan Lea (Farrer and Brownbill 1907, 361-2), held the estate during the early 18th century with her husband John Hawarden. John Hawarden's probate inventory survives (in which he is described as a 'Gentleman' rather than 'Yeoman'), and demonstrates that the Lea Green estate is prosperous at this time (Table 1.3). The list of livestock is considerable, and includes a total of seven horses, seventeen head of cattle and an unspecified number of pigs. There is evidence for the cultivation of barley, oats and hay, processing of flax and the production of beer with a brew house and malt press. Most helpful for the reconstruction of the farm complex is the mention of associated buildings (barn, shippon and brew house) and a detailed description of the contents of rooms which are listed in a systematic manner, indicating the valuation took place from the top of the house to the ground floor (although there is no mention of a cellar). This permits the construction of an outline of the organisation of the house on three floors, and the rooms can be listed accordingly (Table 1.4).

Goods	Value		
	£	s	d
Imprimis Three Horses own mare two galliways [galliway = small strong breed of horse from SW Scotland]	£22	0	0
Item and two Coultis Item Eleven Cows own Bull	£33	0	0
Item two Heffers three Calves	£4	0	0
Item two Hogs	£1	10	0
Item forty measures of oates sixty Mesurs of Barley six mesurs of wheat	£12	7	4
Oats growing	£6	0	0
Item sacks and windowsheet sives halfe mesure And an ould arke [bin for meal] in the Barne	£0	15	6
Item in the shipons [animals' building] sows and frampotts	£0	2	0
Item in Carts and Wheelles plows and Harrows and Hors Geeres	£4	10	0
Item in stable Chamber an ould Mault Mill own pair of bed stockes a Joynery Bench & other od things	£0	15	0
Item in Poultry	£0	10	0
Item in the Hay bay two ould Chests own load Of Hay pithforks & arkes spades Hachelbrearhook [?hachel = hatchel = instrument for dressing hemp or flax, ?brear = briar]	£0	19	8
Item in Ladders and stone trofes	£0	10	8
Item in the Bruehous own brewing pan own boyler and od things	£3	15	0
Item in the buttery Chambre Garret own pare Of bed stoks twoo fether beds three bouldsters Rugs and blanketts own Cheare own Pillow own Chese	£3	0	0
Item in ye Kichen Chambre Garett 3 pare of bed Stocks 3 fether beds & bouldsters Rugs & blanketts own Pres 2 cheares own looking glass	£4	2	6
Item ith Hall Chambre Garret 2 pare of bed stokes 2 fether Beds 3 pillows & bouldsters blanketts and rugs twoo Chests two Chears	£2	15	0
Item in y <sup>e</sup> Parlor Chamber own pare of bed stocks and Hangings own boulder own pillow two blanketts And rug	£1	0	0
Item ith Hall Chamber own pare of bed stocks & hangings Own fether bed two bouldsters own flock bed and Quillt Eight Chears two stools own Chest of Drawers own Looking glas own table own grate [?] [?Chear] and close stoole	£12	0	0
Item in ye Kitchen Chamber own pare of Bed stocks own fether bed two bouldsters 3 pillows flock bed blanketts Rug and hangings 7 Chears own Couch Chear Own Little box own trunck Close stoole grat Fender fireshovell and touns	£4	17	6
Item in ye Buttery Chamber own pare of Bedstocks and Hangings own fether bed two bouldsters own pillow Blanketts and Rug own Chest own Chear own Great fire shovle and tongs	£2	10	0
Item in the old Parlor Chamber own pare of bedstocks Own fether bed 3 bouldsters blanket and Coverlett Two Chears	£2	0	0
Item in the old end Chamber own pare of bedstock own	£1	0	0
Fether bed two bouldsters blanketts and Rug And od Lumber	£1	0	0
Item ith old Parlor two chests own tabl maden & grate	£0	12	6
Item in ye Hall own ovell Table own side table ten Chears and grate Pictors and Maps	£2	5	6
Item in ye Buttery two old Chests own pres own Little table Mugware and white mettles sives and shelves	£0	12	6
Item in ye Kitchen own dresser Own Chest two tables Six Cheares fower stoolles and Pewter	£5	16	0
Item three Brass potte two pans own posnet own Kettle two Little pans fowar bras Kandlesticks Own bras Chafeing dish own warming pan Two brass morters	£2	9	0
Item Jack spitts Grate firehovll touns and other Little iron things & Jack weights	£1	10	0
Item in the Parlor two ovell Tables own old Chear Own Looking Glas own Grate fire shovle And touns Pickrs and own Gun	£1	5	0
In silver plate	£7	10	0
Item in Glas bottells & provisions for ye hous	£2	10	0
Item in Linnen	£6	8	0
In Wareing aparill & saddles	£6	0	0
The remainder of the Lumber	£0	13	4
Item in Colles	£20	0	0
Item in Pott Clay	£1	10	0
Item in Cash & debts	£30	0	0

Table 1.3: Summary of Probate Inventory for John Hawarden, taken on 10 May 1715 (see Appendix A.3 for full transcription)

Floor	Room from Inventory
Top floor (within roof space)	Buttery Chamber Garret
	Kitchen Chamber Garret
	Hall Chamber Garret
First floor	Parlour Chamber
	Hall Chamber
	Kitchen Chamber
	Buttery Chamber
	Old Parlour Chamber
	Old End Chamber
Ground floor	Old Parlour
	Hall
	Buttery
	Kitchen
	Parlour

Table 1.4: Summary of rooms from John Hawarden's probate inventory, 1715

A more detailed consideration of this list of rooms in light of the excavation and later surveys of the farm is included here (Table 1.4). The relative size of the rooms can be calculated from the material contained therein, and it is interesting to note the existence of a 'Jacks spitts Grate' and 'Jack weights', a mechanical roasting

device suggesting a kitchen fireplace of considerable size. The presence of £20 worth of coal in the will indicates the accumulation of a significant amount, the material, far in excess of that required for domestic consumption. It would seem to indicate that John Hawarden was involved in the extraction and sale of coal probably from within the bounds of the estate.

Katherine Hawarden is subsequently described as a widow of Sutton in the 1717 Papists' Estates records (Sharpe France 1945, 130; Lancs RO QDP 1/4), holding for life three High Fields, a Messuage and tenement, Bare Croft and Close. At the same time she let a series of other fields to Henry Clayton, including Two Cross Fields and seven other fields; two Anchor Fields and seven other fields; Bare Croft Meadow, Dam Meadow and other fields (Sharpe France 1945, 130). Katherine Hawarden's own will is dated to 1718/19, and does not detail goods to be distributed, suggesting that the ownership of Lea Green Farm and the material therein was already settled (Appendix A.4). However, the will does specify the sale of a parcel of land and buildings, and after the repayment of a mortgage on this property, the amount raised was to be distributed evenly amongst Katherine's six surviving children and the offspring of her deceased son, John. The description of the property is quite specific: Ackers House and tenement, associated fields known as Kiln Hey, Sand Hey, Lower Meadow and four fields known as 'rough dales' amounting to thirteen large acres. This property can be identified with the land to the east of Lea Green on the western side of

Date	Owner	Tenant	Source
pre 1717, prob 1662 and 1673	Bryan Lea, yeoman of Sutton		
1717, 1718	Katherine Hawarden, widow of Sutton, daughter of Bryan Lea		1717 Papists' Estate records, 1718 will
1758	Thomas Hawarden, Great Great Grandson of Bryan Lea		Survey of Mr Hawarden's estate in Sutton
1773	Thomas Hawarden of Liverpool	(1) Thomas Hawarden of Liverpool, esq. (2) John Hosker of Bold, yeoman Agreement for execution of a lease for 11 years of a messuage with the Orchard Croft, the little Bare hey, the Great Bare hey, the first High field, the second high field, the third high field, the fourth high field, the outlet meadow, the nearer damshead and the further damshead in Sutton containing approx. 36½ a., occupied by John Bold, farmer Rent: £75 per annum and £5 per acre for overploughing more than 8a	Lease DDX 900/81
pre-1807	Mr Gillibrand		Bold Estate Sale Catalogue 1860
1807	Michael Hughes of Sherdley		Bold Estate Sale Catalogue 1860
1901	Sherdley Estates	Richard Rimmer	1901 Census
	Sherdley Estates	Henry Rimmer	oral testimony
1947-	Sherdley Estates	T. H. Fenney	Estate Map
1955-1972		Arthur Fenney	oral testimony
1997	Lord St Helens		letter from agents to Archaeology Unit
2002		Mr W. Fairclough	resident at time of evaluation

Table 1.5: Recorded Owners and Tenants of Big Lea Green Farm



Fig. 1.3: Detail of William Yates's Map of Lancashire, 1786

Chester Lane, Marshall's Cross, currently occupied by Roughdales Brick and Tile Works. Interestingly, her son Bryan's share of this sale was not to be granted until he had paid off debts amounting to £300 plus interest incurred through the mortgaging of other land. This may indicate that by the time the will was drawn up, Bryan was the principal occupant of Lea Green farm and estate.

An agreement dated 22 February 1757 between Thomas Hawarden of Liverpool, Henry Smith of Preston, and Thomas Grimshaw and Edward Bullen of Preston refers to 'all that messuage and tenement called Lea Green

House or Lea Green Tenement and the several closes, closures and parcels of land thereunto belonging or therewith containing by estimation 42½ acres of ground heretofore the inheritance of Bryan Lea of Sutton yeoman deceased Great Great Grand Father of Thomas Hawarden' (Lancs RO DD SC 31/1 – 1757). Thomas is probably the son of Katherine who is listed in her will of 1718/19, and is recorded in a lease as the eldest son and heir of John Hawarden, deceased, of Chorley (Lancs RO DDP 31/1).

A 'Survey of Mr Howarden's Estate in Sutton' (St Helens Local History Archives M/M/9 Hawkshead Papers) dated c. 1758 lists the holding. This closely corresponds with the holding recorded in a lease of 1773 between Thomas Hawarden of Liverpool, and John Hosker of Bold, yeoman, which concerns 'a messuage with the Orchard Croft, the little Bare hey, the Great Bare hey, the first High field, the second high field, the third high field, the fourth high field, the outlet meadow, the nearer damshead and the further damshead in Sutton containing approx. 36½ a., occupied by John Bold, farmer'. Rent: £75 per annum and £5 per acre for overploughing more than 8a (Lancs RO DDX 900/81, 1773).

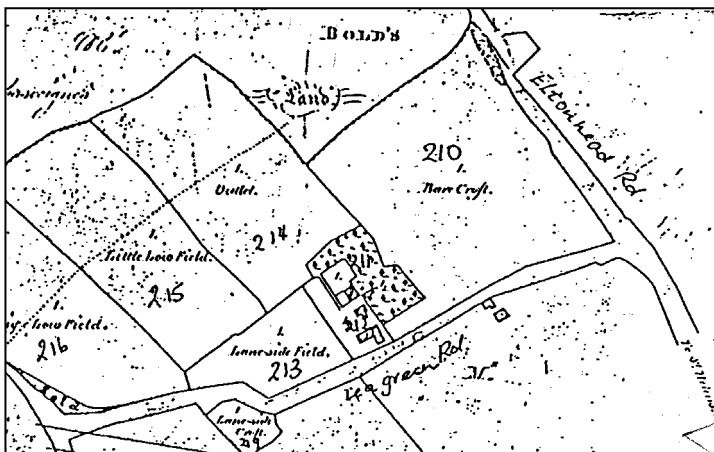


Fig. 1.4: Detail from 1826 Hughes Estate Survey (St Helens Library SH/199/A)

### The Map Evidence

A series of maps from 1786 to 2002 documents

many of the changes in the organisation of the farm at Big Lea Green. The principal changes observed in these documents are summarised in Table 1.7.

The holding in *c.* 1758 corresponds in most respects to that shown on the plan of Michael Hughes's Estate map dated 1826 (Table 1.6 and Fig. 1.4, also known as the Sherdley Estates). Hughes acquired Lea Green estate in 1807 for £6,580 from a Mr. Gillibrand (Bold Estate Sale Catalogue 1860), and at this point it consisted of over 76 statute acres, including a large house with outbuildings and generating an annual rent of £130 (Barker and Harris 1993, 151).

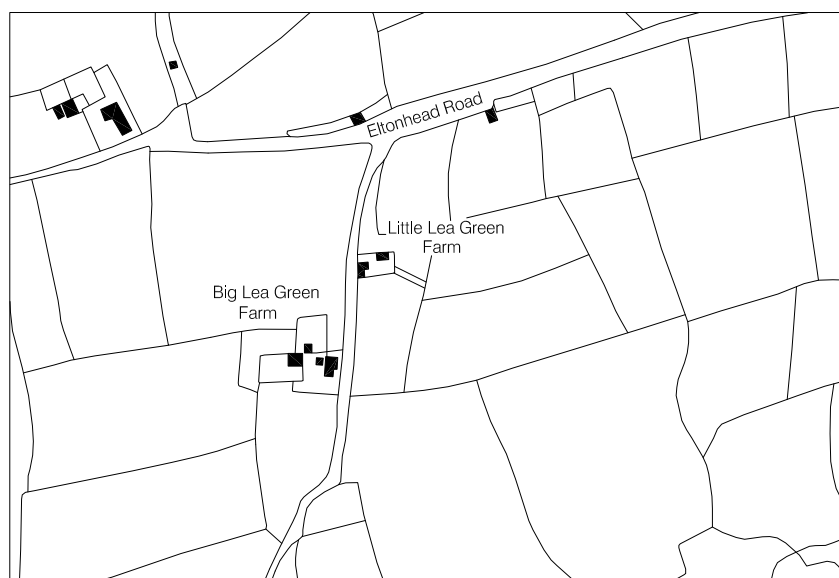


Fig. 1.5: Detail of 1843 Tithe Award Map for Sutton (Lancs RO DRL 1/77)

By the mid 18th century the Lea Green estate was one of a number of farms in the township of Sutton, with its fields in two compact blocks either side of Lea Green Road.

A large Dwelling House Barnes Stables Folds Courts and Gardens	a.r.p.	£ s d
12 Oak Trees the Bark at		1-5-0
At the Measure there used	- 1 - 0	2-15-0
40 Orchard Croft	0-3-0	1-10-0
40 Little Bare Croft	1-1-0	2-10-0
45 Great do	2-2-0	5-12-0
42 First Highfield	1-3-0	3-13-6
32 Second Highfield	1-1-0	2-0-0
30 Third Highfield	3-0-0	5-11-0
36 Fourth Highfield	3-0-0	5-8-0
44 Outlet Meadow	1-0-0	2-11-0
45 Nearer Cross Field	6-1-0	14-2-6
42 Further do	6-3-0	13-10-0
33 Nearer Anchor Field	4-1-0	7-0-0
27 Further do	1-3-0	2-7-6
20 Nearer Damstead	1-2-0	1-10-0
20 Further Damstead	1-1-0	1-5-0

Table 1.6: 'Mr Howarden's Estate in Sutton' (Lancs RO DD HK 1758)

At the time of the redevelopment in 2002, Big Lea Green Farm was one of two holdings on Lea Green Road. The other, Little Lea Green Farm, which lay on the opposite, eastern, side of road, was as its name suggests the later of the two farms. William Yates's Map of Lancashire dated 1786 shows only Big Lea Green Farm, indicating its priority in the sequence (Fig. 1.3).

From the documentary evidence it is possible to list the known owners and tenants of Big Lea Green Farm (Table 1.5).

## 20th-century occupation of the site: war damage and reconstruction

A series of photographs was generously loaned to National Museums Liverpool by relatives and work colleagues of William Rimmer, tenant at Lea Green during the 1940s. These pictures variously show the farm from the turn of the century, during the 1930s, after being bombed in 1940, the new farmhouse in the late 1950s and finally the farm during the 1980s. In addition, a series of interviews were conducted with individuals familiar with the farm and its inhabitants, which helped to sketch out the history of the farm during the 20th century. In the 1901 census Richard Rimmer is listed as the tenant farmer at Big Lea Green Farm, although he must have been a relatively recent arrival at Lea Green since he is shown as being resident in Formby in 1881. He was succeeded as tenant by his son.

The farmhouse and adjacent barn were badly damaged on the night of 10-11 September 1940 when three high-explosive bombs straddled the complex. There is some doubt of the exact date of the bombing: correspondence relating to a subsequent compensation claim states that the bombs fell on 12 September, but family photographs of the damage have '11th September' written on the reverse. RAF records state that there were raids over Liverpool on the nights of the 10th, 11th and 12th September (Nina Burls pers. comm., Summary No 420, 12 September 1940, page No 10<sup>1</sup>). It seems that the first date is most likely as this is a record given by those most directly involved.

The raid took place at a critical phase of the Battle of Britain, as the Luftwaffe shifted its focus from the bombing of airfields to the targeting of cities and industrial areas. Historians have suggested this transition

<sup>1</sup> See <http://www.raf.mod.uk/bob1940/calendar.html#evntsept>

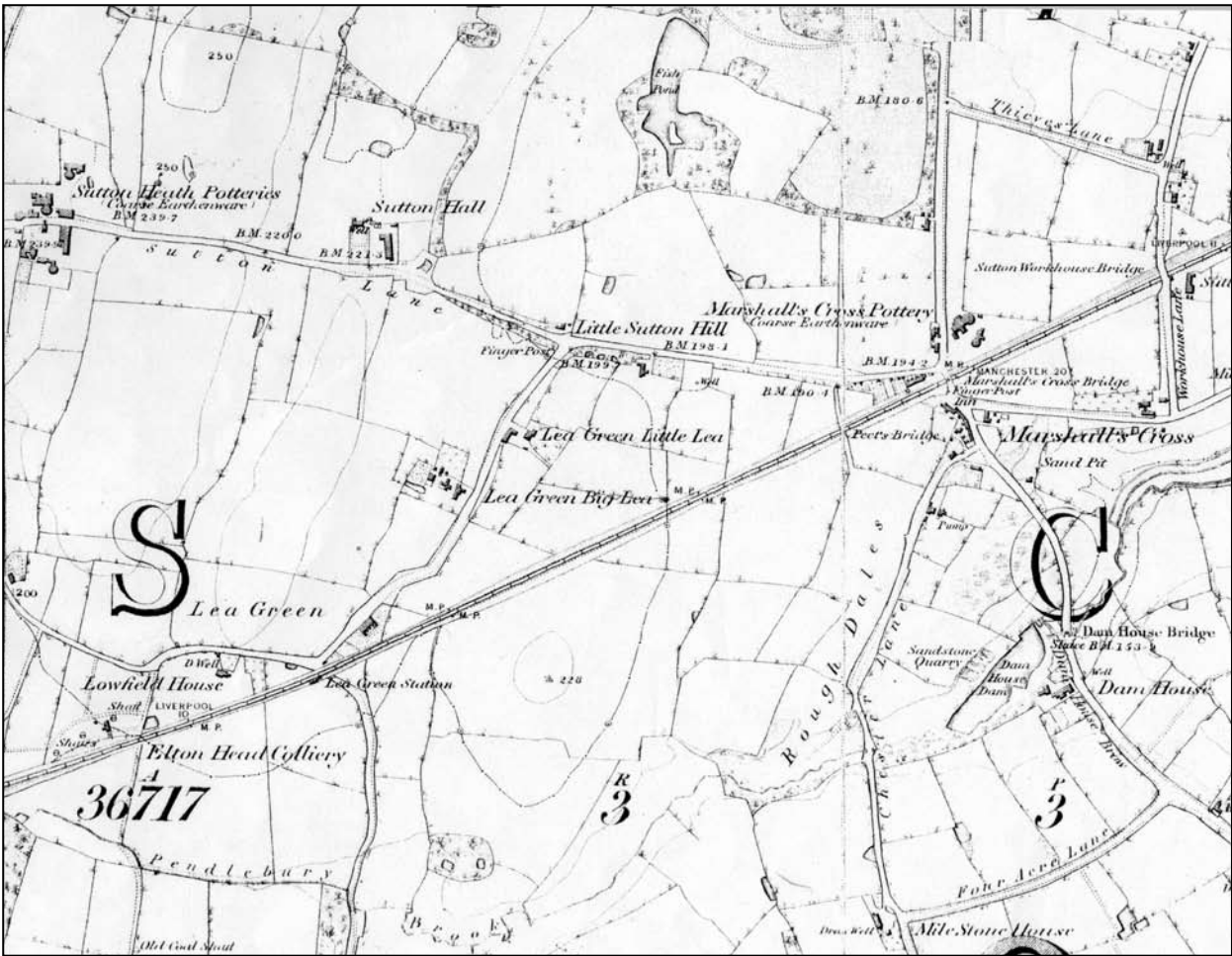


Fig. 1.6: Detail from 1849 Ordnance Survey 6 inch map

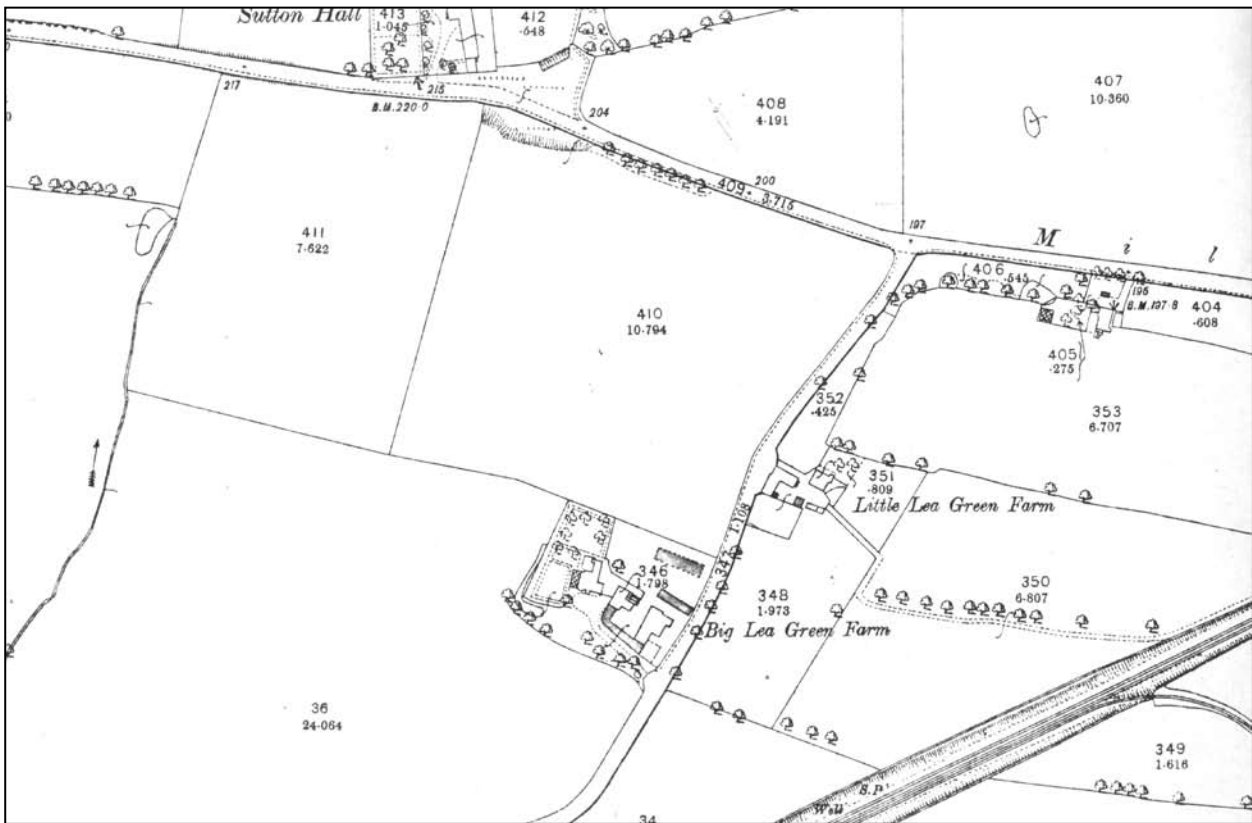


Fig. 1.7: Detail from 1894 Ordnance Survey 25 inch map

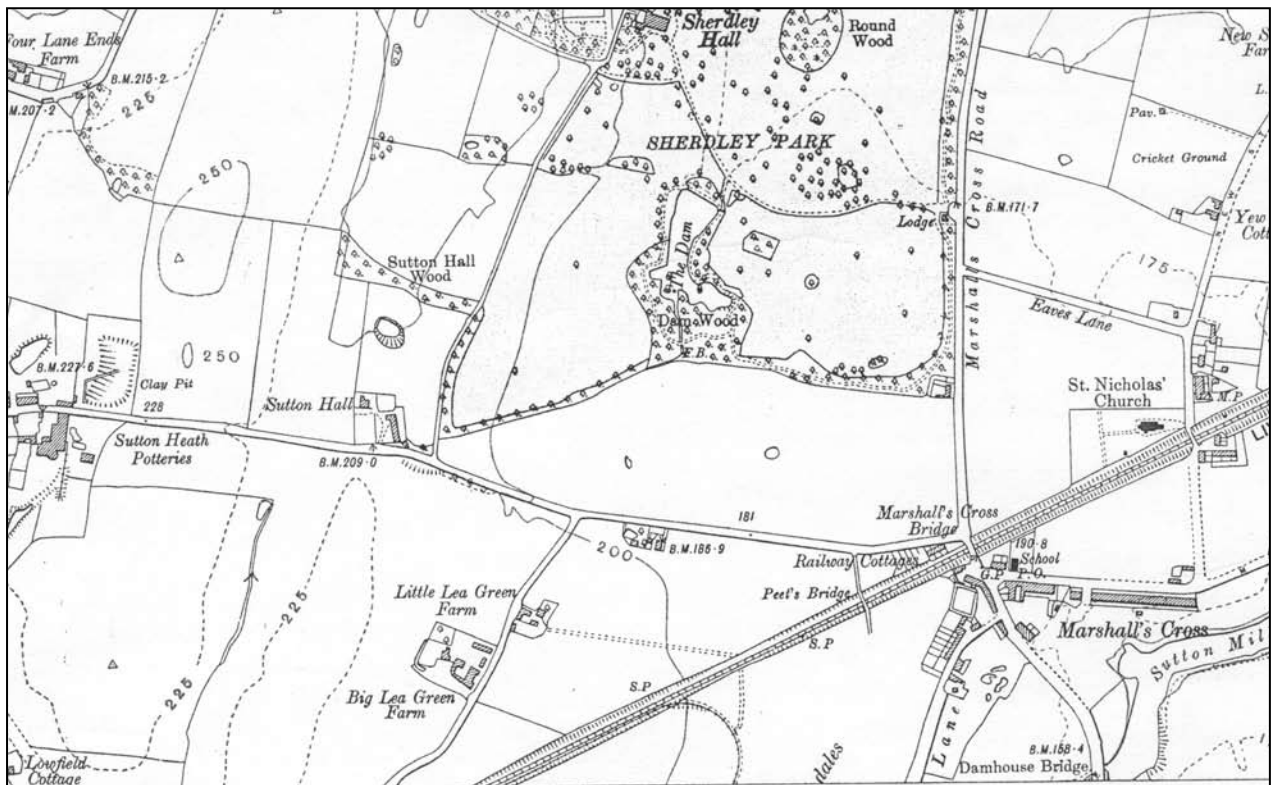


Fig. 1.8: Detail of 1928 Ordnance Survey Map 6 inch Lancashire Sheet 108 NW revised 1925-26

Map	Details
1786 Yates Map of Lancashire	Locates the area known as Lea Green, bounded by roads, no detail of buildings or enclosure. Fig. 1.3
1826 Hughes Estate Map	Farmhouse a square block; barn and coach house; 'L' shaped barn. Large orchard across N side of area with possible small building, small enclosure to west of farmhouse. Fig. 1.4
1843 Tithe Map	No change to buildings discernible, orchard subdivided. Fig. 1.5
1849 1st Edition 6" OS Map surveyed 1846-7	Farmhouse a square block; barn and coach house building extended westwards? - misaligned; 'L' shaped barn extended to north? Small building in orchard now flanked by two small structures; moat feature first appears in SW corner of area, running E-W. Fig. 1.6
1894 1st Edition 25" OS Map surveyed 1891-2	Farmhouse massively extended- extensions built to the northern side, the eastern side and western side of the original square ground plan, driveway to S side of farm is established; stables added to the barn and coach house building which has been connected to the 'L' shaped barn by an E - W running wall; 'L' shaped barn has an additional outshut on its E side. A new building has appeared at the SE corner of the 'L' shaped barn. Orchard shrunk to a small square enclosure in NW corner of area, earlier buildings in orchard have disappeared. Two new large buildings (barns?) appear in the E and NE part of the area. Moat feature is now 'L' shaped. Farm complex has a rectangular enclosure for first time. Fig. 1.7
1909 Edition 6" OS Map surveyed 1905-6	Complex is very similar to 1894, an E-W aligned building (a barn?) was replaced by a smaller N-S structure, a possible milking parlour and an adjacent small square structure (not illustrated)
1928 Edition 6" OS Map surveyed 1925-6	Complex is very similar to 1909, a small square building appears in the orchard, small square building next to milking parlour gone. Fig. 1.8
1956 Edition 6" OS Map	Details of the complex same as 1928 Map- not resurveyed?(not illustrated)
2001 Developer's Map	Bombed farmhouse has gone, a new farmhouse situated close to Dutch barn, barn and coach house replaced by a large modern barn, grain silos built along W side of milking parlour (not illustrated)

Table 1.7: Summary of map evidence for Big Lea Green Farm

as a key error, which permitted the RAF sufficient time to recover and therefore win the Battle of Britain (German air superiority being a necessary precursor to an invasion). Attempts to identify the specific units involved in the bombing raid have, to date, been unsuccessful. Nonetheless it is most likely that the aircraft engaged in the action was a Heinkel HE111-H, the Luftwaffe's principal long-range bomber at this stage of the conflict.

The farmhouse was still standing after the air raid, but was very badly damaged, as was observed during the excavations and might be noted from photographs taken on 11 September 1940 (Fig. 2.26). An architect's drawing of the farm made in 1948 shows the location of the damage (Fig. 2.22). The resident tenant at the time of the bombing, Mr Rimmer, moved to New Street, Marshall's Cross, and continued to farm the estate from there until giving up the tenancy in 1947. It appears that the farmhouse may have been suffering from subsidence prior to the bombing: a photograph from *c.* 1903 shows the decorative bosses of lateral braces on the south-facing façade, and the pictures taken immediately after the bombing of the east-facing façade show that wall

ties also ran in the opposite direction. This matter was the subject of some discussion during the application for compensation, since it was suggested that the building previously suffered from mining subsidence. However, it is possible that the restraints were put in place as a preventive measure prior to any subsidence taking place, a practice exercised elsewhere in the area.

Compensation was sought and obtained by the landowner (Sherdley Estates) from the War Damage Commission, and the lengthy correspondence associated with this claim is currently held by Leach Borrton Shaw estate agents (formerly J. B. and B. Leach). The cost of repairing the damaged farmhouse were estimated to be so high that it was better to build a new farmhouse with the £1589 received from the War Damages Commission. The new farmhouse was built in 1953 at a cost of £3364 17s 5d. The cost of demolishing the bomb-damaged farmhouse was £140 (by Holt Lane Stone Company, there being a shortage of specialist demolition teams at the time). It is interesting to note that the demolition team was instructed to remove the foundations to one foot below the ground level, which explains the limited traces exposed during the excavation.

## 2. The Archaeological Excavations

*A. C. Towle*

### Project aims and methodology

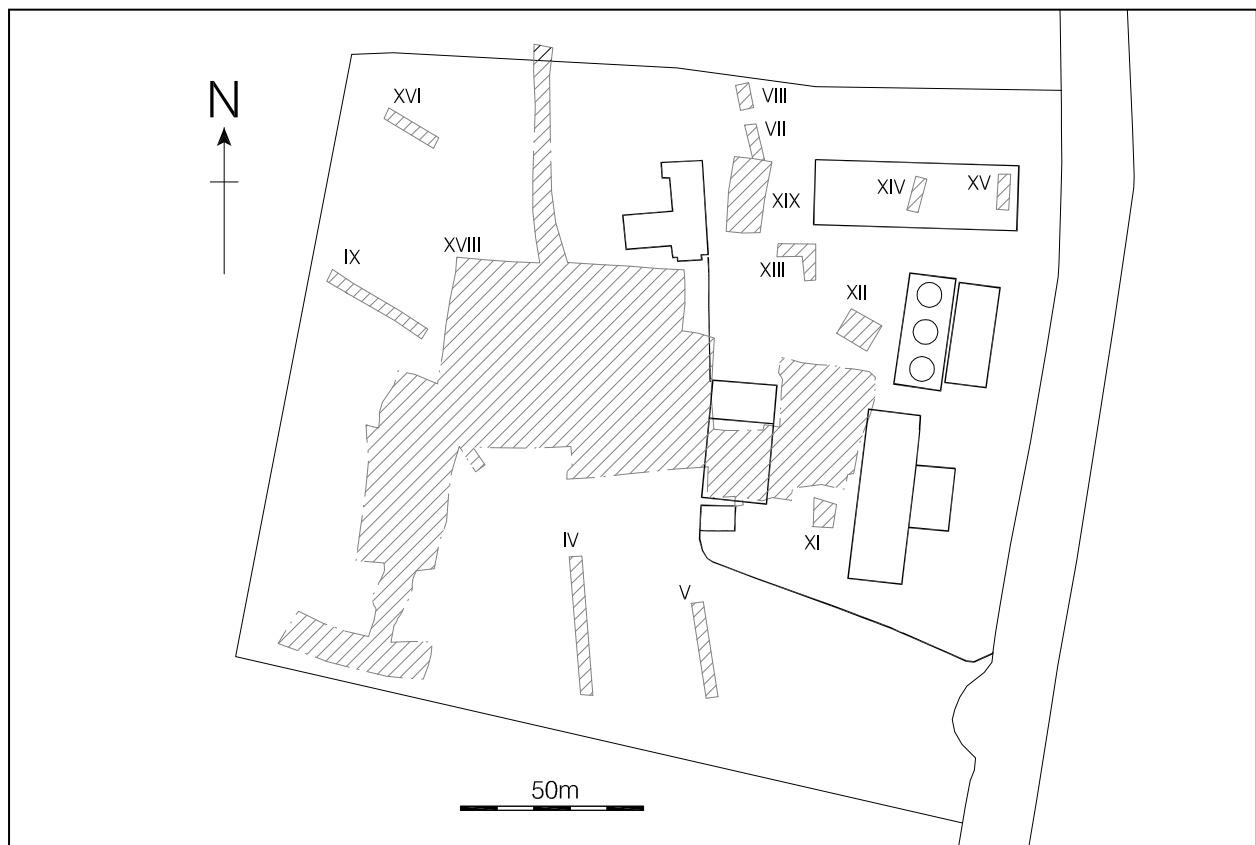
The main objectives of the excavation were:

- to establish the nature of the site: it was assumed that this was a late medieval moated site enclosing a farm and ancillary buildings. This could only be ascertained by sectioning the moat and excavating the buildings on the platform.
- to record the location, extent, survival, quality, significance and date of any archaeological deposits within the area of development, and place them in a regional context.
- to recover a sequence of late medieval and post-medieval pottery and other artefacts from stratified deposits. This would act as an important benchmark for future research in the area.

The excavation was undertaken between 8 July and 6 September 2002 (including an additional week of contingency time in response to delays owing to poor weather). A team of up to 12 professional archaeologists was present on site at any one point, accompanied by up to three work-experience students. A press open day was held on 30 August 2002, and an additional report by local BBC TV on the final day of work on site helped generate a positive public profile for the project.

The public interest in the excavation generated by the media reports prompted a number of local people with photographs and additional information on the history of the farm to come forward. This has been of great assistance in the interpretation of some of the excavated structures.

The fieldwork was undertaken as described in the project design, with a large area stripped of topsoil and 20th-century demolition material by machine. The area stripped amounted to approximately 1420 m<sup>2</sup> (Fig. 2.1), significantly smaller than the anticipated area. The smaller area was the consequence of a deeper overburden of topsoil across the south-western area of the site and a greater depth of demolition material around the principal buildings than was anticipated from the evaluation. This meant that a larger proportion of resources than was originally planned was expended on topsoil stripping, reducing the overall area exposed. In addition, significant disturbance by heavy plant to the south-eastern corner of the site during and after demolition of the barn rendered further work in that area unnecessary. As a consequence the excavation boundaries were designed to maximise the recovery of information from the site. Machine-dug sections were placed across the 'moat' to supplement the hand-excavated sections; a discrete trench was opened up over an isolated feature identified during the evaluation (Trench XIX) to ensure there were no extensive deposits



*Fig. 2.1: Area of excavations with trench numbers*



waterlogged deposits at the base of several pits. A series of building remains identified to the east of the principal buildings were planned but not excavated; the key relationships were established by digging sondages between structures.

A total of 400 contexts were defined and recorded during the course of the evaluation and excavation, 193 plans and sections were drawn and over 900 photographs taken. A total of 20,858

Fig. 2.2: General view of excavations from east

in this area; the main trench (Trench XVIII) was located over the principal buildings identified during the evaluation (Fig. 2.2). Additional trenches were extended northwards and eastwards from the central area to identify deposits of interest and subsequently the eastern trench was expanded to cover a complex of buildings (Buildings 2, 3, 7 and 8 in Fig. 2.5).

After machining, all the deposits within the confines of the trench edge were excavated by hand. The linear features (walls and ditches) were sampled by sectioning and environmental samples were recovered from

artefacts were recovered (see Chapter 4 below). During post-excavation processing the finds and site records were catalogued, cross-referenced and prepared for archiving. Specialist reports have been completed on the environmental samples, the pottery, selected stonework, glass, the clay tobacco pipes, horn and antler assemblages.

A summary of the structural sequence is outlined below, containing key elements identified during the excavation. A more detailed discussion of the contexts, groups and phases is included in the archive, and readers interested in additional information are invited to consult the archive report in National Museums Liverpool.

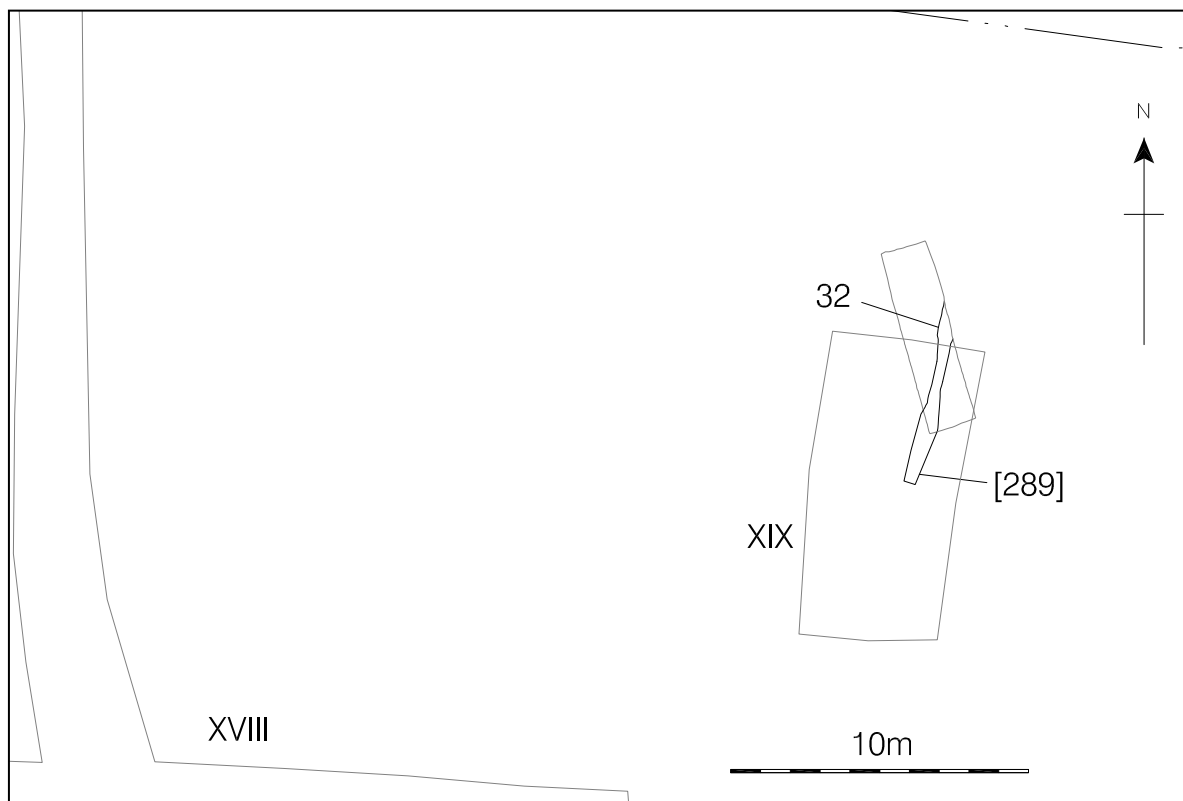


Fig. 2.3: Phase 1: Medieval occupation

### Phase 1: Medieval occupation (13th-15th century)

The evidence for medieval occupation of the site was relatively slight, consisting of fragments of 13th/14th-15th-century pottery, which were distributed throughout the sequence as residual finds. Large unabraded fragments occurred in many deposits suggesting that there was occupation during this period at the site (and the sherds had not been present in a re-worked ploughsoil). However, only a single feature could be confidently assigned to this period: a shallow gully (32) without any associated occupation deposits (Fig. 2.3).

The full length of the gully was not established, but it ran for at least 2.4 m aligned north-east by south-west (Fig. 2.3). The fill (31) contained a fragment of unabraded medieval pottery and a single sherd of late medieval pottery, probably dating to the 15th-century. This is the only deposit that can be considered as of late medieval date.

It seems likely that the medieval deposits on the site were extensively truncated by later activity or situated outside the area of excavation. The latter seems unlikely since the area was extensively evaluated by trenching prior to the main excavation.

Rural buildings dating to this period from the region are poorly understood; there are no known excavated examples which can be posited as types which may have been present during this time. The absence of well-defined structural elements does not demonstrate an absence of buildings on the site during the medieval period: the 22 sherds of medieval pottery represent a significant assemblage for this area and firmly establish occupation of the site. Work on higher status buildings from this period, such as the standing structures at Ince Manor, Cheshire, illustrates the problems of identifying archaeological evidence for houses (Adams in prep.), as even substantial stone-built buildings may leave little or no archaeological trace. In this example, walls are built directly onto the upper surface of the natural bedrock with no foundation trench. This problem

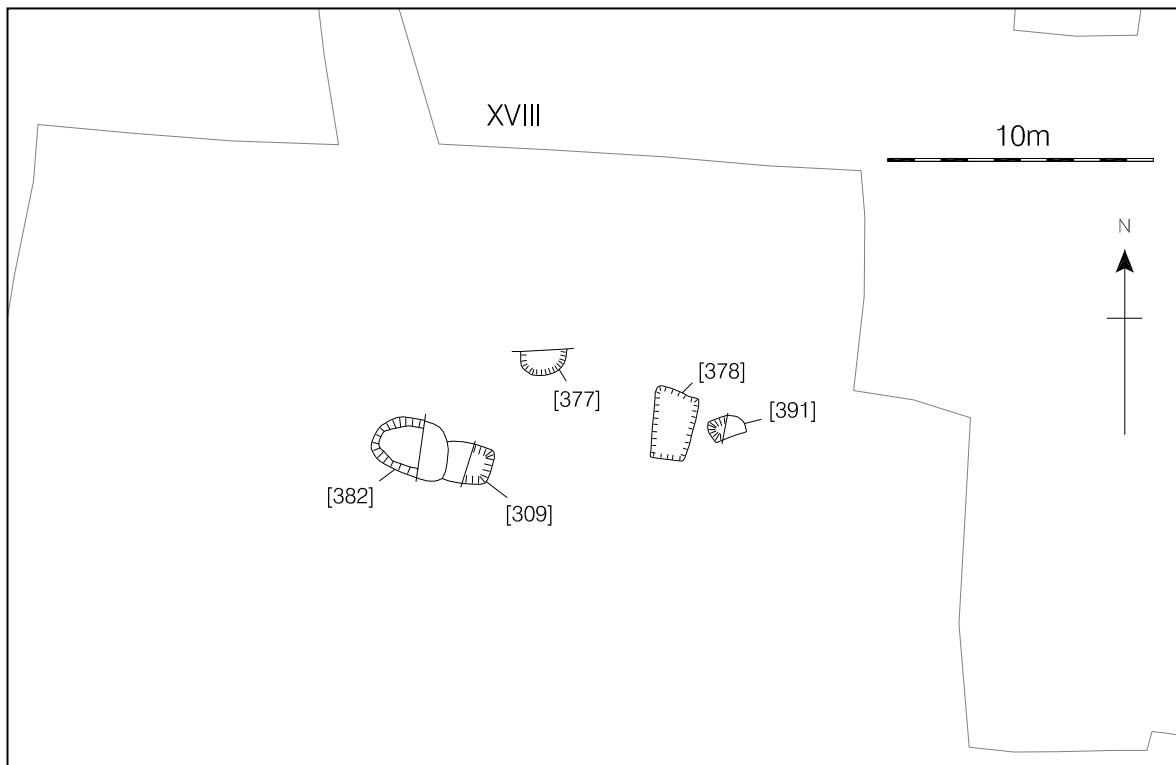


Fig. 2.4: Phase 2: Post-medieval pits

This gully was first identified during the evaluation (Adams 2002b, 4), and was interpreted as a possible building element, such as a sill-beam slot. A larger area was opened up over the gully during the main excavation, and it was exposed beyond the confines of the evaluation trench. However, no associated features were found and it could not be related to additional structural elements. It was established that the gully fill was sealed by soil horizon (275), and was therefore amongst the earliest stratigraphic units on the site.

may be even greater for timber cruck-built structures, which have an even less intrusive footprint. Studies of standing buildings suggest that in northern England cruck blades were normally supported on padstones and very few examples of standing cruck constructions are known where the blades enter the ground (Addyman 1981). Buildings constructed in this manner would leave little archaeological trace on a site as extensively remodelled as Lea Green. The large quantity of dressed sandstone blocks with architectural details re-used in

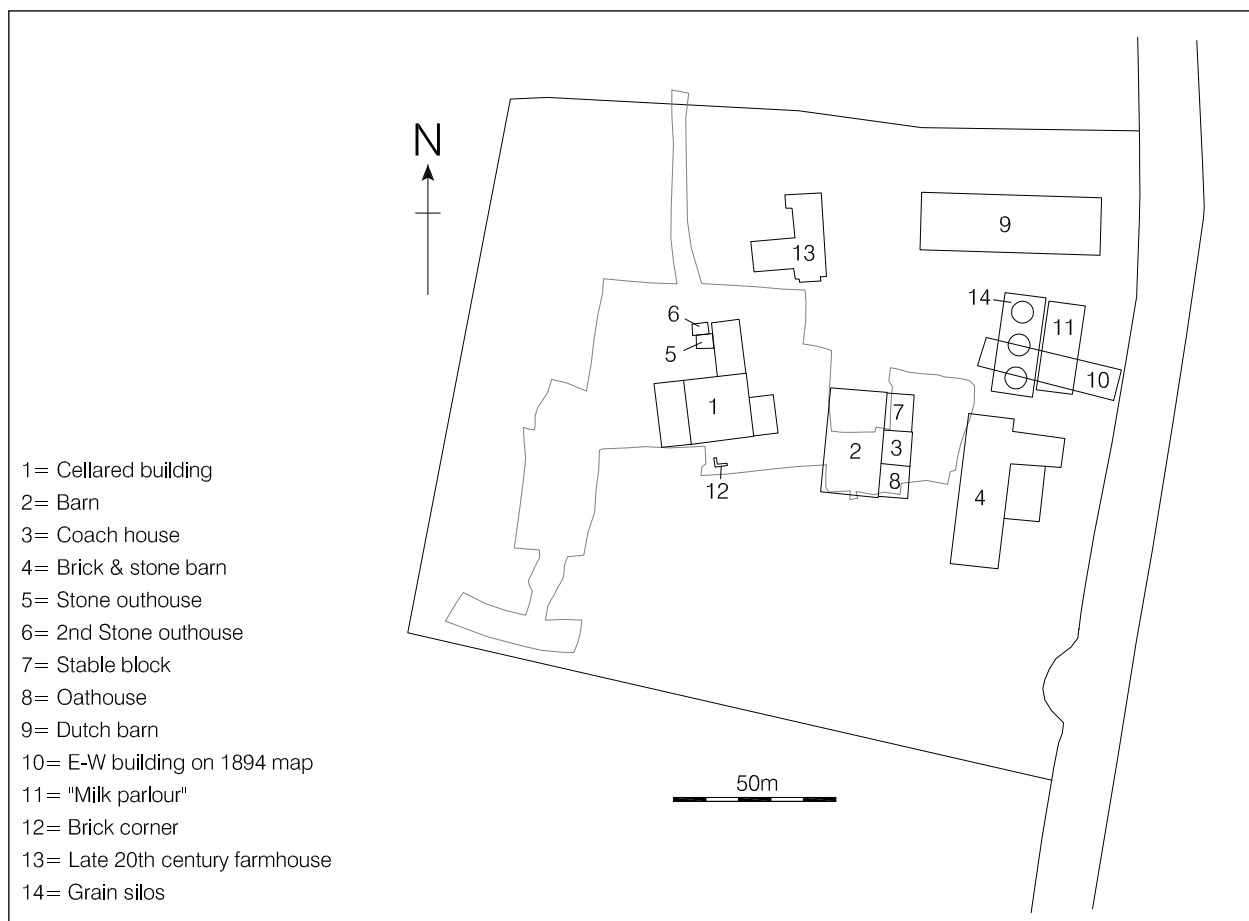


Fig. 2.5: Key to buildings mentioned in text

later buildings (see Phase 4) suggests that there was a substantial building on, or close to, the site from the medieval period.

### Phase 2: Early post-medieval craft activities

A total of five pits (cuts 377, 391, 378, 309, 382) can be attributed to this phase of activity, with a wealth of artefactual and environmental evidence for the activities undertaken at the location (Fig. 2.4). The pits contained woodchips, antler, horn cores, leather shoe fragments and leather off-cuts as well as pottery. The fills from two intercutting pits (382, 309) were waterlogged and yielded an impressive assemblage of vertebrate remains and material rich in environmental data. The results of the specialist analyses are described in the specialist reports below (see Chapter 3 below) and Jaques 2003; Simmons 2003; Jaques and Hall 2002; Bending 2002).

The pits are tentatively dated to the 16th century, since most of the ceramics recovered from them were from the 14th-16th centuries, and two of the pits were cut by ditch 238 (see Phase 3). The presence of later pottery in the uppermost fill of pit 309 is seen as contamination from the overlying garden soil 324.

### Discussion of Phase 2

The presence of such a high proportion of plant species associated with wetland offers an interesting insight into the use of the land where the pits were dug. Clearly the pits were excavated in an area not directly under cultivation; they were left open over the course of at least two summer/autumn periods during which time the seeds of ripe plants were deposited. There are no known adjacent wetlands, bogs, marsh or similar environment. However, the underlying boulder clay is a poorly drained soil, and unless carefully managed, easily becomes waterlogged. It is therefore suggested that the wetland species, alongside cultivated plants and those associated with open waste land reflect a highly localised situation. The pits were excavated into land adjacent to habitation and large unabraded fragments of pottery as well as other material were deposited in them. The area must have been waterlogged or frequently very wet and not under cultivation, but close to land that was. It is likely that the pits were located on waste ground close to farm buildings.

### Phase 3: Early boundary ditch

A short stretch of 'L'-shaped ditch (contexts 166, 238) marked the earliest definite subdivision of the area under study (Fig. 2.6). Arranged to the north-east of

the farmhouse, this ditch is likely to have related to a system of enclosures pre-dating the establishment of the cellared farmhouse (although this is not definitely the case). The ditch may have been an attempt to drain and improve the site, given its wet and boggy nature. The ditch was backfilled with material containing 16th and 17th-century pottery giving a *terminus post quem* for its disuse. This feature was partially obscured by a buried soil horizon (see Phase 5), which did not extend over the entire site.

The northernmost stretch of the ditch ran north-south for 14 m, the south end turned eastwards for 13 m before terminating. The northern end extended beyond the limit of excavation, and was not fully exposed. This ditch was sectioned at four separate locations, and in total 18.6 m of a possible 27 m of the ditch length was excavated. One problem arises from the comparison of the finds from the different excavated sections. Two fills contained 19th- and early 20th-century pottery, in contrast with all of the others which contained only 16th- and 17th-century wares. The northern part of the ditch was sectioned to the north of stone outhouse buildings (e.g. context 62; see Phase 7), in an area which was latterly used for the dumping of domestic rubbish, up against the outside of its northern wall (62). The area was heavily truncated by drains (164, 169, 242), and it is suggested that these introduced the later pottery into the two ditch fills (167, 269; Fig. 2.7). The analysis of clay tobacco pipe from this contaminated ditch fill also raises dating difficulties. Context 269, the primary fill at the northern end of the ditch contained 23 fragments of clay pipe, of which the five bowl fragments are closely

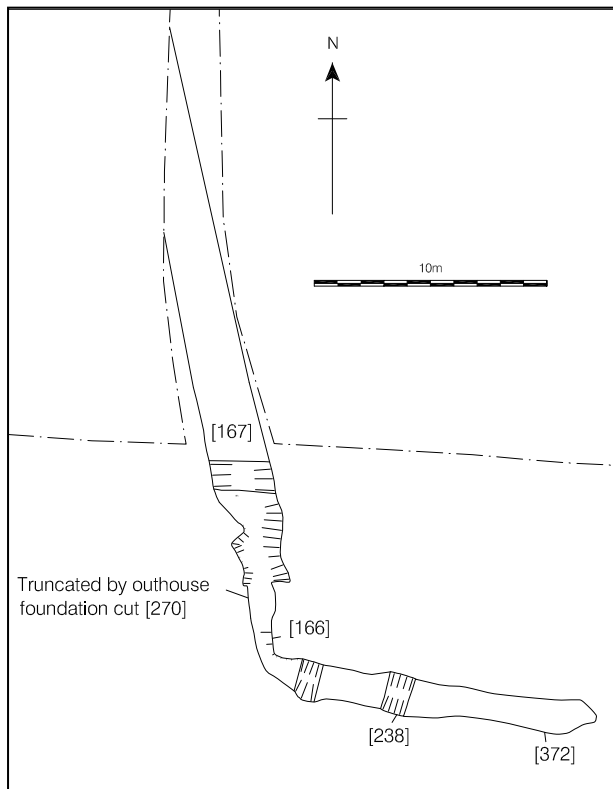


Fig. 2.6: Phase 3: Early boundary ditch

dated to the period c. 1690-1720 (see Chapter 4 below). This would suggest that the ditch is later than the Phase 4 activities, which seems unlikely. The ceramic evidence for the ditch would tend to suggest an earlier date. It is possible that the pipe fragments are intrusive finds; this ditch fill was noted to be contaminated when compared with those sectioned elsewhere, but it would be surprising for a group to be deposited in this manner. It remains a possibility that the northern portion of the ditch continued to be cleaned out and used after the rest of it had been backfilled.

The ditch cut through a pit (cut 391) from Phase 2 which contained a fragment of 16th-century early post-medieval dark-glazed ware, which gives a *terminus post quem* for its initial excavation. The presence of 16th- and 17th-century pottery in its fills (316, 261, 278) suggests that the ditch was open for a relatively short time, or was regularly cleaned out before it was backfilled. The fills were barely distinguishable grey silty clays, and difficult to differentiate from the soil horizon (275) which obscured the edges of the cut until it was stripped away. This suggests that both the fills and soil horizon may have been subject to some form of post-depositional homogenising process, possibly some form of bioturbation. There was an absence of mottling or large inclusions of clay that might suggest the incorporation of natural clay from the original upcast (or elsewhere) is a component of the backfill.



Fig. 2.7: Phase 3: Section across ditch (166, 269), showing build up of deposits, from south

#### Phase 4: Establishment of farmhouse, barns and coach house, and associated ditches

A large cellared building (Building 1) was constructed from re-used sandstone blocks (Figs 2.8-10, 2.13). The 'cellar' measured approximately 7.5 x 5.0 m and 0.6 m deep, and the associated building elements suggest that the initial building measured 12.4 by 10.4 m. Throughout the report this building has been discussed as having a 'cellar'. It should be noted that the base of the cellar was 0.6 m below the upper surface of adjacent natural clay. Even with a contemporary ground surface 0.5 m above natural, it seems likely that the ceiling of the cellar was higher than ground level, at least during



Fig. 2.8: Phase 4: Establishment of farmhouse, barns, coach house and associated boundaries

the later stages of its use when a washroom was installed in the eastern half (see below).

The foundation trench which was lined with the sandstone walls was steep-sided with a flat base (302). The cut was up to 7.5 m long east-west, 4.8 m north-south and 0.6 m deep. The walls had internal faces of dressed sandstone blocks up to 0.9 x 0.3 x 0.45 m, but also include irregular unworked blocks of sandstone behind the facing blocks (Fig. 2.11). A number of the worked pieces had architectural detail showing they had been re-used. The walls are of variable width, with walls 50 and 102 and 81 being double-block thickness, between 0.66 and 0.77 m wide compared with walls 104, 54 and 34 being between 0.28 and 0.32 m wide. The variable thickness may identify which walls carried the greatest weight, and therefore help with the reconstruction of the building.

A section across wall 50 recovered four sherds of pottery, three 16th-century early post-medieval dark-glazed wares and a tiny fragment of 18th-century dark-glazed coarse ware. The latter was considered as probably intrusive, given its small size. The finds give a *terminus post quem* for the foundation of the building in the 16th century or shortly thereafter.

Since the building is likely to post-date the nearby boundary ditch described in Phase 3, then a 17th-century

date seems most probable for the foundation of this structure. The building is not likely to be later than 1720, since it is respected by a ditch which had gone out of use and been backfilled with huge quantities of 16th- and 17th-century domestic pottery by that date. The clay tobacco pipe from the back-filled ditch dates to the period 1660-1720, with the majority of the material from the period prior to 1690: the two later fragments may be early examples of their type, and the ditch was most probably back-filled during the 1680s (see Chapter 4).

To the east of the cellared building (Building 1) were the sandstone foundations of a large building (Building 2), constructed in a similar manner to the first. Wall 150 marked the northern side of the original building, continuing the line of the cellar wall (50), and its western limit was indicated by a single large dressed sandstone block. Parallel to this, 3 m to the south, was wall 151, which turned at its western limit, running 1 m southwards (Fig. 2.12). The line of the southern side of the building is not present in sandstone construction, but a short length of brick wall (346) at the south eastern corner possibly from a later re-build is probably on the line of the original. This would have given the original core of the cellared building external dimensions of 12.4 m east-west, and 10.4 m north-south.

Two internal foundations (33 and 44) were difficult to interpret; they were both stone-filled cuts, suggesting



Fig. 2.9: Phase 4: Construction of cellared building (Building 1) and associated sandstone foundations

that they were designed to support weight-bearing structural elements such as a chimney or stair foundation. No dating evidence was recovered from them. They are not necessarily contemporary, and may reflect the reconstruction of either of these types of structure. On balance it seems likely that wall 33 was part of a chimney base with east-west wall 81 which was thicker than other internal cellar walls. The location of flagstone fragments and brick border (276) to the east of 33 would reinforce the interpretation of 33 as part of a chimney, since 276 was probably the base of a fireplace.

Building 2 constituted a large barn orientated north-south (12.0 x 6.8 m) and a coach house (7.0 x 5.0 m) (Building 3) built up against the eastern side.

The coach house (Building 3) consisted of a series of substantial sandstone walls (283, 285, 296, 295) defining a rectangular building with an opening facing to the east. The western wall of this building was the eastern wall (286) of Building 2. The walls were constructed from irregular blocks of roughly-dressed sandstone up to 1.2 x 0.18 x 0.25 m. The walls were 0.7 m wide. The walls were packed with clay and smaller angular fragments of sandstone, and pointed with mortar. The building was 7 m long east-west, 5 m wide north-south and had an opening 2.2 m wide on the eastern

side. The internal floor consisted of a cobbled surface (284) continuous from the inside through to the external cobbled yard (294) to the east of the building. This building is interpreted as a coach house on the basis of direct observation and independent confirmation by a farm labourer who had worked at the farm until the 1950s (Mr Haslam pers. comm.). The western wall for this building (286) continued 3 m to the south of the southern wall (283), before turning westwards (wall 288). The construction of the two buildings may have been contemporary, since the respective walls were of similar construction, but the coach house walls butted up against the barn wall and were therefore considered secondary.

Although no dating evidence was recovered from within the fabric of the foundations, the construction style and materials were identical to Building 1, and it seems most likely that these were the associated farm buildings. The location, orientation and proportions of these structures were consistent with buildings shown in the 1826 map (Fig. 1.4), and may be contemporary with the initial construction of the cellared farmhouse building to the west. It is intriguing to note that the coach house and barn are more closely aligned to Lea Green Road to the east than the cellared farmhouse.



Fig. 2.10: Phase 4: Foundation of Building 1 from east

The building survey of a standing brick and stone barn (Building 4) outside the area of excavation (see below) identified a first phase of dressed sandstone walls, dating to the period before 1757. It seems highly likely that this was also contemporary with Buildings 1, 2 and 3.

An east-west aligned ditch (56, 338, 383) ran from the western limit of the wall foundation of the cellared building (151) at its eastern terminus as far as the 'moat' feature (cut 29, Phase 6) at its western end. The upper edge was consistently clear with a distinct interface between the ditch fills and natural boulder clay. The profile varied slightly along its length, with the western-most portion having a shallow slightly concave slope to a step 0.4 m wide on the southern side (Fig. 2.14) descending steeply to a flat base 0.8 m wide. The northern side at this point is steep and slightly concave. Elsewhere, to the east, the ditch is less regular, with a steep irregular northern side and shallow irregular southern edge (Fig. 2.14). The eastern end of the ditch was shallower than the western end, and the base of the ditch sloped away from the east to the west: from a height of 58.84 m to 58.50 m OD. However, the base of the ditch was not flat-bottomed along its entire length,



Fig. 2.11: Phase 4: Stone wall foundation (302) of Building 1 from west

and was mostly irregular with a poorly defined shift from sides to irregular concave base. The ditch was carefully sectioned in four discrete places, with individual sondages varying between 1 and 2 m in width. The ditch fills could not be confidently correlated across more than one sondage, although the fills were not substantially different in either nature or sequence between each section. This would indicate that the filling of the ditch was consistent along its length and not subject to localised

variation determined by other activities.

The ditch fills were all significant deposits of silty clay indicating the deliberate back-filling of the cut during a relatively short period of time. The fills were not interspersed with lenses of silt or layers of finely laminated silts which might be expected to accumulate during a gradual filling process. The absence of a primary silt-rich layer in the base of each section through the ditch indicates that the ditch was kept clean during its use, or was back-filled soon after its original excavation. The individual fills were largely distinguished by their intensity of colour, being variations of light to mid to dark greyish brown. Two fills (126, 131) contained sufficient sand for this to be noted in the soil matrix description and these contexts were mid and dark orange brown as a consequence of the sand content. The natural boulder clay in this area includes bands of sand eroded from the underlying bedrock, and this is thought to be the origin of the sand in the soil matrix. There was evidence of animal burrowing in the fills, with a distinct darker lens running across two other ditch fills.

The ditch fills contained remarkable quantities of pottery, which are listed in Tables 2.1 and 2.2. A large number of sherds could be fitted together to reconstruct vessels, and many fragments came from different ditch fills indicating that the filling of the ditch was probably a single event during which a huge quantity of domestic ceramics was dumped into the ditch. The average sherd weight was 63.3 g, compared with 25.8 g from garden soil, 324. The large sherd size and unabraded condition of the pottery fragments suggests that they were deposited directly in the ditch, probably from the kitchen of the adjacent farmhouse. The clearing-out of a kitchen may be associated with a major remodelling of the farmhouse, but since the superstructure of the building

did not survive it is difficult to identify this in the remaining building fragments. However, there is some brick and roof tile present in the ditch possibly associated with reconstruction work. There is evidence of re-organisation of the cellars, with several distinct alterations, but this cannot be closely dated or identified with the filling of the ditch. During pottery cleaning it was noted that a number of sherds were heavily sooted on their internal surfaces, suggesting the pottery was debris from a conflagration but this is more likely to be as a result of use over a fire than from a fire in the house itself. Despite the presence of occasional small charcoal fragments, there was no real evidence that the ditch was backfilled with post-fire demolition debris. Alternative explanations could include the clearance of household contents on the death of a tenant, prior to the installation of a new tenant or the forcible removal of an unwanted occupant and his/her possessions.

Given the exceptional ceramics assemblage derived from the fills, the intervening baulks were removed during the final stages of the excavation to maximise the artefact recovery: these finds were allocated the context number 77 (Fig. 2.15).

The eastern terminus of the ditch was at the later north-south aligned 'moat' 29/ditch 253 (see Phase 6 below). The relationship between the ditch cut 56=338=383 and the moat was obscured by the N-S wall 78=208 and its foundation cut 250. However, the ditch did not continue to the west of the 'moat' feature, and appears to be designed to drain water away from the farmhouse to the east, emptying into a ditch at the location of the 'moat'/ditch 253 (spot heights on base of ditch confirmed this). It is therefore seen as secondary to the 'moat' or more specifically an earlier ditch on this line. Since the moat feature is probably a 19th-century construction (see Phase 6 below), and ditch 56 (also 338 and 383) was backfilled during the early 18th century (possibly prior to 1720), the moat feature is regarded as a later re-cut of an earlier boundary ditch in this area.

The wall 78=208 ran north-south across the western end of ditch cut 56=338=383, and lines the full profile of the ditch. The drystone construction would permit water to continue to flow through the ditch, but is unlikely to have been built with the intention of leaving the ditch open: there was no accumulation of silt or other deposits against the eastern side. It may have been associated with the backfilling of the ditch, since the ditch fill (251) appeared to have butted up against the eastern face of the wall within the ditch cut, and the wall continues to the north and south of the ditch, flanking the 'moat' 29/ditch 253. However, given that wall 78=208 was constructed in a trench elsewhere (250), it is possible that it was a later insertion, cut through the ditch fills 252 and 251, which was not identified during excavation. Similarly, the construction of brick buttress (170) up against the eastern side of the drystone wall



Fig. 2.12: Phase 4: Building 2 wall foundation (151, 360) part-excavated, from west

is possibly a later intrusion not identified during the excavation. The brick buttress base is above the base of the wall, and since it is not bonded into the wall, but butting up against the eastern side, it is probably secondary to the construction of the wall.

The use of this ditch can therefore be summarised as first having been cut as part of an enclosure established at the same time or shortly after the construction of the cellared building. The ditch may have been re-cut or regularly cleaned out before being rapidly filled in with material containing a large amount of domestic pottery. The back-filling of the ditch is associated with a clearing-out of the farmhouse kitchen and the reorganisation of the external space of the enclosure to the west of the farmhouse, in which the enclosure extends southwards.



Fig. 2.13: Detail of cellar (89, 99), from west

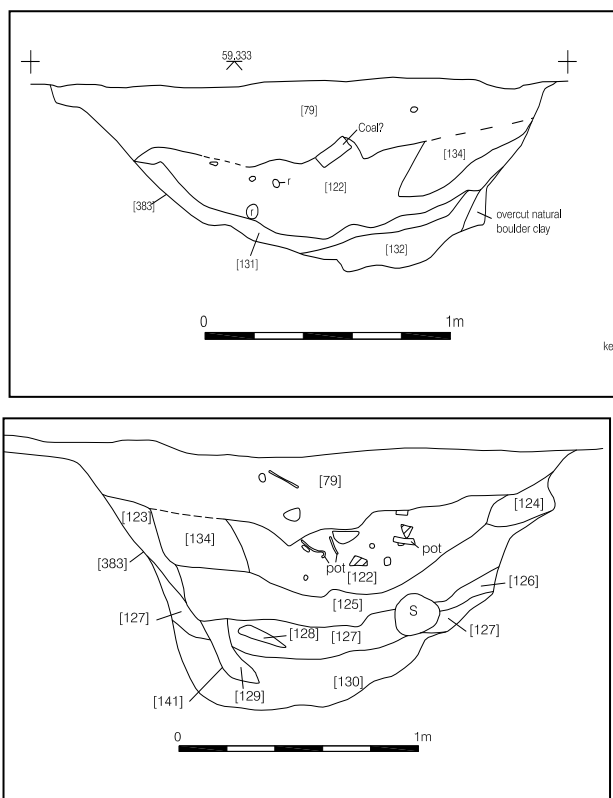


Fig. 2.14: Sections across Phase 4 ditch (56, 338, 383)

Based on parallels elsewhere (Pool's House, Formby: Adams 2001) it is possible to suggest the initial layout for the complex. The ditch 56=338=383 respected the south-western corner of the cellared farmhouse, running westwards before turning north and defining a rectangular enclosure against Lea Green Road. The later 'moat' feature (Phase 6) destroyed the southern-most portion of the western side of this enclosure ditch. The enclosure ditch (39) was noted as narrowing to the north of the moat feature, being 3.2 m wide and 0.75 m deep, and was probably part of the initial enclosure.

#### Phase 5: 18th - early 19th-century drains and building amendments

This phase of activity is relatively limited, and consists of a series of minor stone-built drains, two small gullies and a short-lived east-west boundary ditch located to the north-east of the farmhouse. An external cobbled surface may have been laid to the north-east of the brick and stone barn.

The standing brick and stone barn underwent a series of modifications during the 18th century: the original stone-built structure was supplemented by a brick-built threshing barn in 1757, which was further extended on its northern side (Barn Phases B-D from the building survey: Fig. 2.27 below). These changes gave the building its L-shaped form apparent in the later map of 1826 (Fig. 1.4). The evaluation (Adams 2002b, 5) identified an external cobbled surface laid onto a layer of rubble to the north-east of this building, the pottery from



Fig. 2.15: Deposit of discarded clay tobacco pipes in fill 95/77 (ditch 56)

the make up layer dated to the 17th and 18th centuries suggesting this surface was laid during the 18th century or later.

A shallow north-south aligned gully was identified close to the north-eastern limit of excavation. The cut had well defined upper edges, with concave sides to an indistinct concave base. Its fill was sealed by the buried soil horizon. The finds from this feature included 17th- and 18th-century ceramics. The northern limit was not established, and the later east-west aligned ditch 356 (also 385) truncated the southern end.

A buried soil horizon (275, 267, 51, 354) was noted in several parts of the site to the north and east of Building 1. This deposit, of greyish-brown homogeneous silty clay, was probably formed over a long period of time and contained pottery from the 14th to the 18th centuries. This layer sealed or partially covered many of the earlier features, making it a significant deposit for the site sequence. Its formation is poorly understood, and is probably a garden/plough soil behind the farmhouse into which a range of deposits were worked over time. The homogenous nature of the soil horizon, and its similarity to the fills of many of the earliest features made it a difficult deposit to define.

Two stone-capped drains, one (330) feeding into the other (329), were identified, inserted into a ditch (325). The only deposit yielding finds from this group of contexts was fill 328 which was deposited around stone drain 329. A total of 96 artefacts was recovered, all ceramic apart from a single glass drinking glass stem (SF1276). The pottery ranges in date from the 16th to the 18th centuries, but is largely dated to the 18th century.

The Hughes Estate Survey Map of 1826 (Fig. 1.4) shows the layout of the farm at the close of this phase, consisting of a square farmhouse, the barn and coach house and an L-shaped barn within an enclosure which is bounded along its northern side by an orchard.

Pottery Type	No	Wt (g)
<b>Context 77</b>		
Late-medieval wares	1	5.6
Cistercian wares	16	217.6
Early post-medieval dark-glazed coarse wares	52	1801.8
17th-century dark-glazed wares	311	27257.0
17th-century self-coloured ware	5	334.7
17th-century coarse yellow wares	33	3406.5
17th-century fine yellow wares	1	31.4
17th-century dark-glazed fine wares	51	1714.6
Early 18th-century dark-glazed coarse wares	89	3233.9
Early 18th-century dark-glazed fine wares	1	60.2
Coarse gritty cook wares	34	1477.9
Buff slip coated red wares	9	1083.3
Slip-decorated buff slip coated red ware	20	574.7
Other slip-decorated wares	1	6.3
Mottled wares	135	4571.9
18th-century Notts/Derby brown stoneware	8	108.9
Plain 19th-century china	2	8.5
19th-/20th-century transfer -printed earthenware	2	41.1
<b>Subtotal</b>	<b>771</b>	<b>45935.9</b>
<b>Context 79</b>		
Cistercian wares	16	217.6
Early post-medieval dark-glazed coarse-ware	5	181.4
17th-century dark-glazed wares	17	1331.0
17th-century dark-glazed fine wares	2	16.8
Early 18th-century dark-glazed coarse wares	27	1831.6
Early 18th-century dark-glazed fine wares	1	5.2
Coarse gritty cook wares	19	769.8
17th-century coarse yellow wares	9	405.3
Mottled wares	16	673.2
Buff slip coated red wares	2	252.0
Slip decorated buff slip coated red ware (as vessel in 77)	3	26.8
Other slip decorated wares	1	4.1
18th-century porcelain	1	3.6
18th-century Notts/Derby brown stoneware	4	65.1
Monochrome tin-glazed	1	5.1
Hand-painted 19th-/20th-century earthenwares	1	3.6
Plain 19th-century china	7	33.5
19th-/20th-century transfer-printed earthenware	10	71.3
19th-/20th-century slipped earthenwares	4	27.3
White slipped red earthenware	1	52.2
Unglazed	4	162.9
<b>Subtotal</b>	<b>151</b>	<b>6139.4</b>
<b>Context 95</b>		
17th-century dark-glazed wares	21	3536.7
Early 18th-century dark-glazed coarse wares	12	4551.5
Coarse gritty cook wares	4	553.4
Polychrome tin-glazed	1	7.5
<b>Subtotal</b>	<b>38</b>	<b>8649.1</b>

Table 2.1: Pottery types from fills of ditch 56

Total from 77	771	45935.9
Total from 79	151	6139.4
Total from 95	38	8649.1
Total from ditch	960	60724.4

Table 2.2: Total sherd counts and weight from fills of ditch 56

### Phase 6: The construction of the 19th-century 'moat', 1826-1846

The 1843 Tithe map (Fig. 1.5) has few details of the farm complex, and the only observable change from 1826 is the subdivision of the orchard into two areas (east and west).

The most significant change to the farm during the early 19th century was the excavation of the 'moat' feature (20, 29, 64, 253) by the south-western corner of the enclosure (Figs 2.16-18). Initially considered to be the possible remains of a medieval moat, this wide shallow ditch proved to be a 19th-century construction, first appearing on the OS map of 1849 (surveyed in 1846-7) (Fig. 1.6). It was a substantial feature defining the south-western corner of the area, between 6.0 and 9.75 m wide and up to 1.4 m deep. It seems likely that this cut was primarily intended to collect water running off the hillside to the south and west of the farm, and may also have served as a pond. The pond may have been used to keep fish: fishponds are frequently confused with other classes of monument, including moats (Darvill 1988). However, it seems unlikely that this feature was used for storing or breeding fish since there is no associated network of water management structures (channels, leats or streams) to control a supply of oxygenated water and maintain levels. It is possible that the form of the cut deliberately emulated that of a moat, similar to nearby site at Micklehead, thereby alluding to the prestige and status of a moated site as a romantic landscape feature. During the 20th century it was referred to as 'the moat' by residents of the farm, and local children used it for swimming.

Possibly belonging to this phase were the remains of an insubstantial building or garden wall to the north of the farmhouse. This was severely truncated by outhouse buildings constructed during the next phase.

The 1849 map (Fig. 1.6) shows the 'moat' feature at the south-western corner of the farm, and the orchard present in only the eastern half of the previously defined zone, north of the farmhouse. Three small buildings are shown at the boundary between the orchard and the farm which do not appear again and were not identified during the excavation suggesting that they were insubstantial constructions.

The south-west corner of the area under investigation

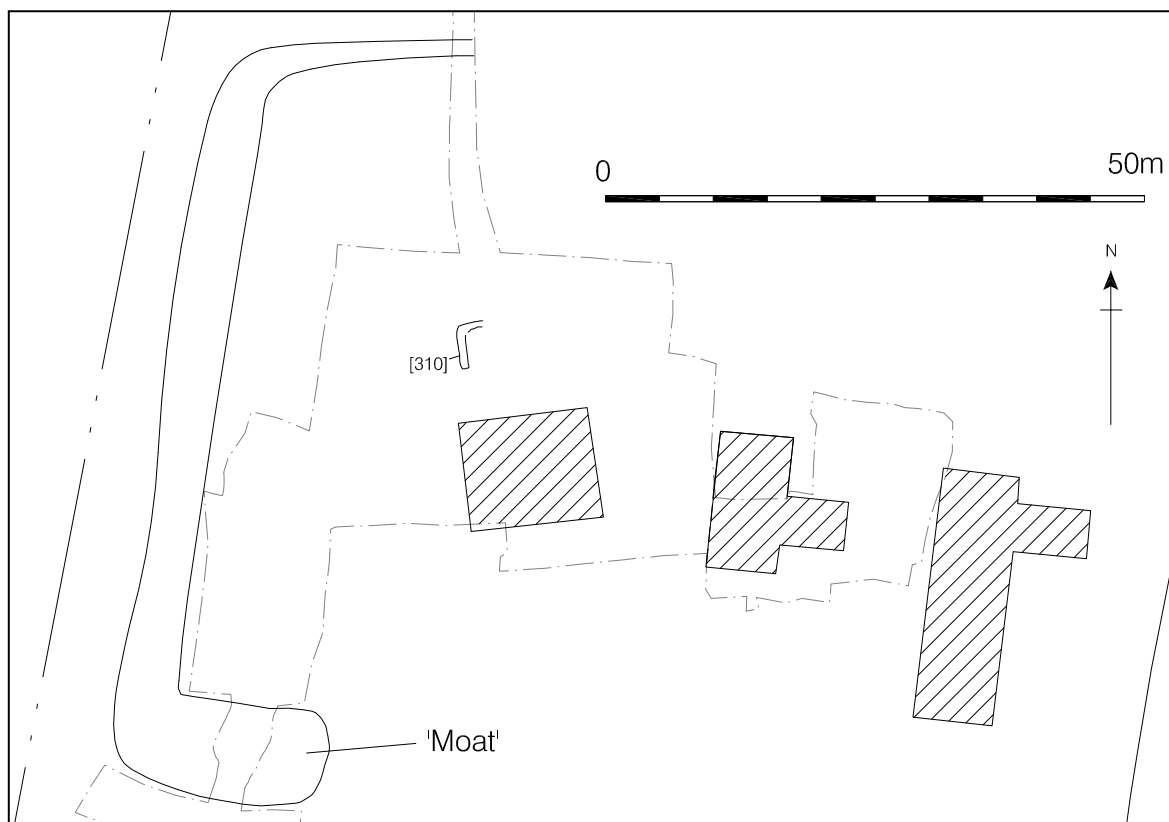


Fig. 2.16: Phase 6: Location of 'moat' feature

was defined by a broad shallow 'L' shaped linear depression (29) previously identified as a moat. This boundary continued northwards before turning east towards the Lea Green Road and east along the southern side to define a rectangular enclosure. The line was latterly marked by a modern hedgerow.

During the course of the evaluation and excavation the 'moat' was sectioned twice by hand and once by machine along its east-west length; and twice by hand and once by machine along its north-south alignment. The 'moat' feature proved to be 9.75 m wide along the southern side and 6 m wide on the west side. It was 1.4 and 1 m deep respectively. The profile varied between

these sections, with a steep, almost vertical slope to a broad flat base on the southern side. The western side had a steep, slightly concave side to a tapered blunt base. The eastern side was machine-sectioned and hand excavated beyond the shallow depression observed in the surface (and indicated on the 1928 OS map) along the projected line. The sections indicate that the boundary continued north of the identified 'moat', but it becomes shallower (0.75 m deep) and 3.2 m wide, with steep sides to a flat base.

The presence of the boundary was confirmed as turning eastwards along the northern side of the enclosure by machine-excavated section. It became more narrow (cut 20), and shallow. However the feature was not identified in a long machine trench excavated across its projected line closer to Lea Green Road. This would suggest that the boundary recorded in maps since 1894 (but not before) may have been hedged or fenced rather than defined by a ditch.



Fig. 2.17: Phase 7: Section across 'moat' (64) showing revetment stones, from north

The excavated fills from the ditch contained 19th- and 20th-century ceramics and building material, indicating the ditch went out of use relatively recently. The profile, dimensions, limited length of the ditch and fills establish that this was not a medieval moat. It would be highly unlikely for all the original fills of an early ditch to be completely truncated by later cleaning.



Fig. 2.18: Phase 7: The 'moat' at the start of excavation, from south

It seems likely that the 'moat' is a 19th-century excavation, possibly a landscaping feature, possibly following the line of an earlier ditch, since a narrow ditch (39) was traced on the same alignment to the north of the 'moat'. The presence of an earlier ditch on this alignment is also suggested by an earlier east-west ditch (56, 338, 389; Phase 4), which was terminated at its western end by the moat. The underlying landscape



Fig. 2.20: Phase 7: Building 6 walls (232 and 229), from south

morphology means that the 'moat' and ditch would collect and divert surface water running off the hillside to the west and south west of the site. Given that the natural geology here is clay over sandstone, the need for drainage is more acute than might be the case elsewhere. The principal function of the 'moat' and boundary ditches was therefore to act as drainage for the farmhouse complex, and secondarily as a boundary marker, since the circuit was not completely defined by a ditch; the ditch was deepest and widest against the base of the hillside to the south-west of the site. It has been suggested that the cut was used as a fish pond but the absence of leats or other obvious water control systems makes this unlikely (as discussed above).

The 'moat' first appears in the documentary record on the 1st Edition OS map of 1849 (Fig. 1.6). The earlier estate and tithe maps from 1808 and 1826 do not indicate the presence of a large ditch or feature at this location, despite a wealth of other detail.

A fragment of wall (305) lay to the east of, and continued the line of, the probable southern face of the cellared building. It may have been part of a building, or simply an external wall between the cellared building and the barn to the east. It was bonded with white lime-rich mortar, and was therefore different to the foundations of both the cellared building (Building 1) and the barn to the east (Building 2). A section through the wall recovered a fragment of 18th-century pottery, giving a *terminus post quem*, and the construction of the eastern extension to the cellared building at this point means that it was out of use by the end of the period 1849-91.

#### Phase 7: Late Victorian transformation, 1847-1891

After the survey for the 1849 map (1846-7), and prior to the compilation of the 1894 map (1891-2) the farmhouse, associated buildings and boundaries were substantially altered (Fig. 2.24).

The farmhouse (Building 1) was re-built, with a brick extension on the eastern side, an extension to the west

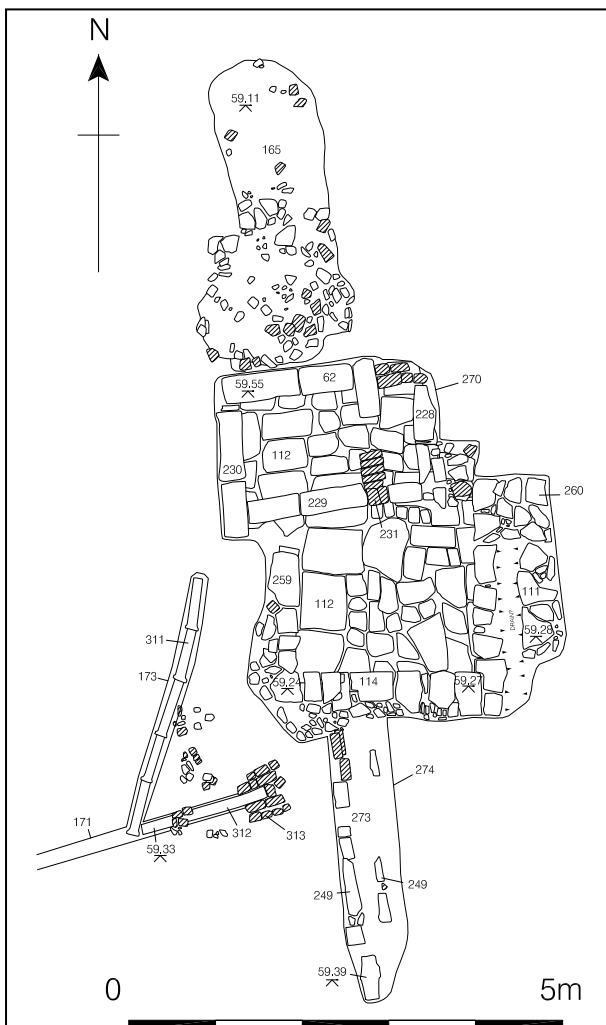


Fig. 2.19: Phase 7: plan of Buildings 5 (to south) and 6



Fig. 2.21: The farmhouse from south, c. 1903

constructed on sandstone foundations over an earlier ditch, and according to the 1894 map (Fig. 1.7) an extension was added on the eastern part of the northern side of the farmhouse. The building was probably reconstructed in brick, as a later photograph from about 1938 shows (Fig. 2.23): the earliest photograph from about 1903 shows a fine rendered house, the rendering obscuring construction detail (Fig. 2.21).

A whole series of internal modifications to the cellar in the farmhouse were identified during the excavation, which date to the 19th century and afterwards. Unfortunately these cannot be closely dated, but were well defined in terms of their sequence. They are



Fig. 2.23: The farmhouse from south, c. 1938

therefore located in this phase of activity, but could conceivably have been ongoing through Phases 6-8 and can be summarised as:

- a. Foundation and initial construction of cellared-building (Building 1) (Figs 2.9-13)
- b. Sandstone building elements associated with the cellared building (Fig. 2.9)
- c. Construction and disuse of a corner hearth
- d. Occupation deposits: coal
- e. New floor and sink supports
- f. New floor, widened stairs and subdivision of the western half of the cellar
- g. Dividing wall and occupation deposits in the coal house
- h. Raised floor and construction of internal drains

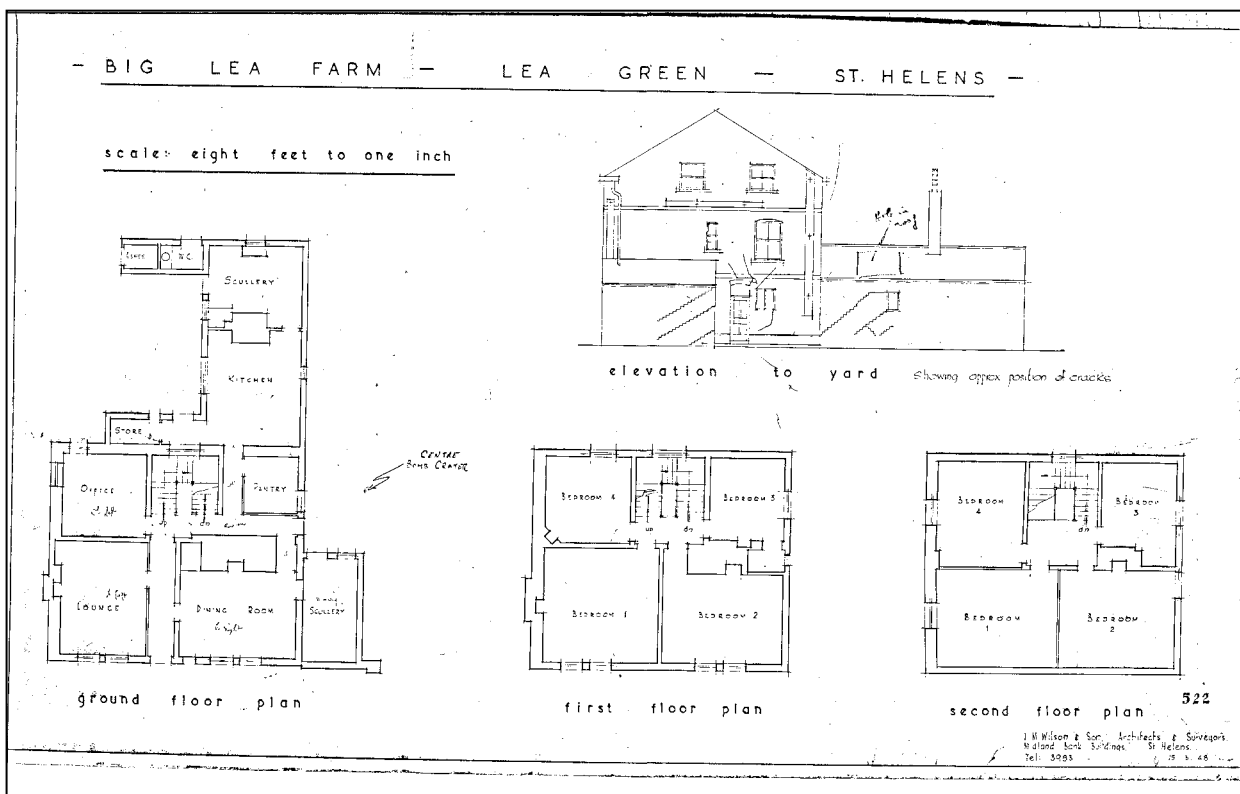


Fig. 2.22: Architect's plan of farmhouse showing bomb damage, drawn 15 March 1948



Fig. 2.24: Phase 7: late 19th-century changes 1847-1891

The farmhouse had a brick-built extension added to the eastern gable at some point between 1849 and 1891-2 (it first appears on the OS map of 1894). The extension is visible on a photograph of 1903 (Fig. 2.21) and was a rectangular room 5.0 m north-south by 3.3 m wide, constructed in unfrosted brick. There was no direct stratigraphic relationship with the cellar foundations, but the addition was constructed in a cut, which was dug against the northern side of the earlier farmhouse frontage.

A western extension to the main building was constructed on a stone foundation which was placed in a cut running across the earlier east-west ditch respecting the earlier western limit of the cellared building. A large dump of domestic rubbish up against the western side of this foundation contained an exceptional collection of clay pipes, no fewer than 499 fragments, closely dated to the 1860s (Higgins 2003; see Chapter 4).

Broadly contemporary with these changes to the farmhouse was the construction of a stone outhouse (Building 5), approximately 4 m<sup>2</sup>, immediately to the north with associated drains. This building was soon modified by the addition of a small east-west aligned stone and brick-built structure (Building 6), identified as an earth closet (Figs 2.19-20), and known to have been in use during the 1940s (Mr Haslam pers. comm.). The north side of the toilet building became the location for the dumping of further domestic refuse, with a large

deposit of material up against the northern wall. This dump contained both building material with frequent brick fragments, but also a high proportion of domestic pottery from the 16th through to the early 20th century. This material overlay the upper fill of an earlier ditch (see Phase 3), but was heavily truncated by later drain cuts.



Fig. 2.25: Phase 7; sandstone building (62) and drain (80) from north



Fig. 2.26: Bomb-damaged farmhouse, view from east, September 1940

The barn and coach house buildings (Buildings 2 and 3) were supplemented during this period by the construction of a stable block (Building 7; Fig. 2.25) on the north-eastern corner, and the area between the farmhouse and the barns was cobbled. An additional building was constructed against the southern side of the coach house, known to have been used for the storage of animal feed (Building 8, ‘the oathouse’). This building was then joined to Building 4 by the construction of a curtain wall, which carried a roof with an open front. This was not identified during the excavation, but could be inferred from the 1894 map and ruined structures

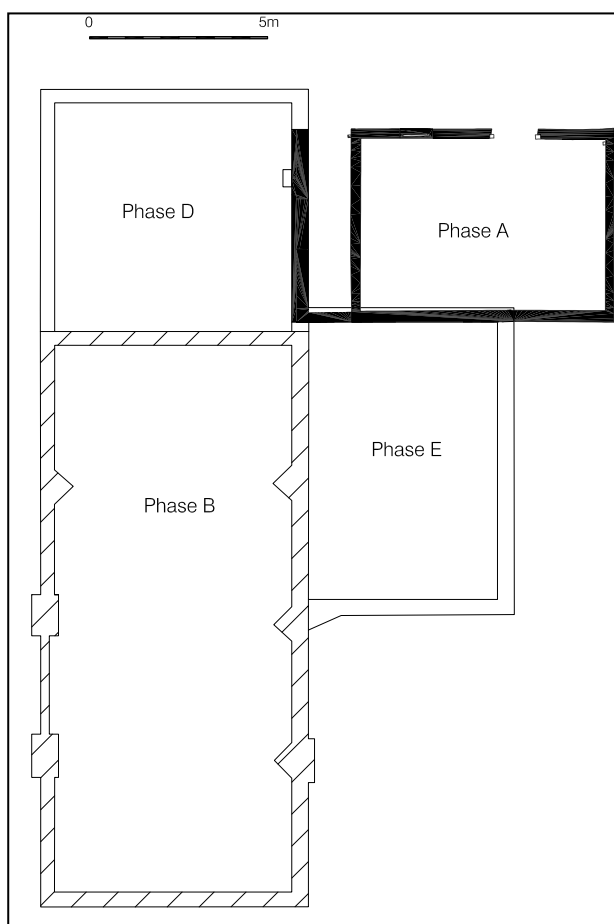


Fig. 2.27: Key to phases of barn (Building 4)

observed at the beginning of the excavation. The building survey also noted the addition of an outshut onto the eastern side of Building 4 (Phase E, Figs 2.29, 2.32), which can be seen on the 1894 map.

The area to the west, between the farmhouse and the moat, was differentiated from the rest of the farm by the construction of one, possibly two drystone walls. This enclosure boundary continued outside the area of excavation, and was partially constructed out of glassy industrial waste.

To the north of the farmhouse a garden soil, containing pottery dating from the 15th-19th centuries, accumulated over the buried soil horizon.

The 1894 map shows the construction of two further substantial farm buildings (Buildings 9 and 10). One, an open Dutch barn (Building 9) oriented east-west in the north-west corner of the complex, was still standing at the beginning of the excavation, the other had been replaced by the time the 1909 map was surveyed.

#### Phase 8: The early 20th century, 1891-1940

The excavation did not establish any significant changes to the buildings or layout of the farm from this period. Photographs of the front (southern) face of the building dating from c. 1903 and c. 1938 (Fig. 2.21 and Fig. 2.23) show that the front porch and flanking bay windows had been removed during this period, and that the render had been stripped off. Maps from 1909 and 1928 show little change in the buildings and organisation of the farm, with the exception of the construction of a small north-south aligned building adjacent to Lea Green Road, interpreted as a milk parlour.



Fig. 2.28: Phase A barn with rebuilt brick wall to north (right), from east



Fig. 2.29: Barn (Building 4) from north-east, showing stone building (Phase A), and outshut (Phase E, to left)

## Survey of the Barn (Building 4)

Robert Philpott

### The Building Survey

Before the main excavation, a survey was undertaken of the oldest standing building at the farm, a barn. This work was carried out at the behest of the Merseyside Archaeological Officer as a condition of the planning consent for work on the site. The survey was undertaken by Robert Philpott and Mark Adams between 21 May and 4 July 2002 (Figs 2.27, 2.34). The barn was subsequently demolished as part of the development. This is a summary of the account in the interim report (Towle 2003).

### Phase 9: Wartime destruction and post-war changes

Massive dislocation to the cellared farmhouse and its brick extension was eloquent testimony to the destruction of the building by a bomb in September 1940 (Figs 2.22, 2.26). The farmhouse was not immediately demolished, but continued to be partially used, before finally being levelled.

Subsequent to the bombing, a small brick-built building (Building 12), possibly a wash house, was constructed to the south of the old farmhouse. This building coincided with a shift in focus to the north side of the site as a replacement farmhouse (Building 13) was constructed during the 1950s and the principal access to the complex from Lea Green Road was moved to the north-east corner of the farm.

After the construction of the last farmhouse during the late 1950s, the only other change was the erection of a series of grain silos (Building 14) on the western side of the milking parlour.



Fig. 2.30: Barn (Building 4) from north-west, May 2002

Several phases of construction were evident in the barn and are described in sequence from Phase A-G. The phased sequence is distinguished from the excavation phases by the use of letters rather than numbers.

#### Barn Phase A: the stone building

The earliest surviving element was the remnant of a stone building, in yellow sandstone, of which fragments of two walls survived in 2002, incorporated into the later structure (Figs 2.28, 2.29, 2.34). The stone walls belonged to a rectangular outbuilding, which the 1906 Sherdley Estate Office drawing showed to measure 9.05 m east-west by 5.45 m north-south. However, this structure had been modified later by the construction of brick walls which no longer survived.

There is no direct evidence for the date of the first phase of the barn. However, the fact that the Phase B barn is likely to be 18th century in date, and if the numerals '1757' do in fact indicate a date (but for a contrary argument, see below), it suggests one fixed point in the sequence of development (Fig. 2.31). It is likely that the worn datestone in Wall 8 was derived from the demolished stone portion of this structure. Although now illegible, it is consistent in style with a 16th- or 17th-century date, and would normally contain



Fig. 2.31: Building 4, '1757' carved on roof timber, during demolition

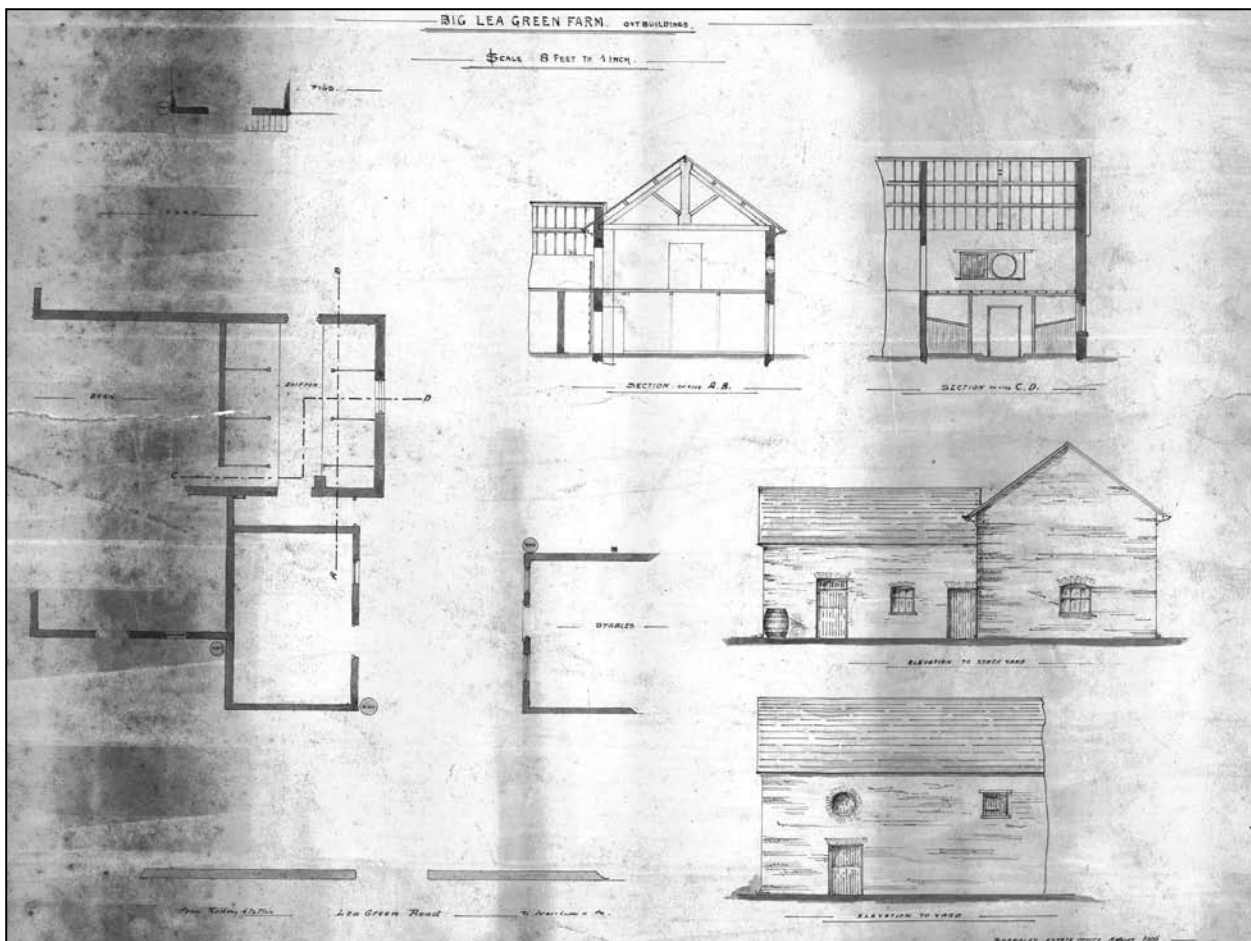


Fig. 2.32: Survey of barn dated 1906 by Sherdley Estates Office (courtesy of J. B. and B. Leach)



Fig. 2.33: Interior of barn (Building 4) after removal of slates

a date and/or the initials of the owner. It seems likely to be contemporary with the construction of the initial sandstone cellared farmhouse which is considered to be of late 17th-century date.

#### *Barn Phase B: the 18th-century brick barn*

The main structure was a north-south aligned brick barn with opposed large carriage doors, suitable for use as a threshing barn, with triangular piers to support the roof trusses (Figs 2.30, 2.33).

Originally, it appears that the brick barn butted up to the stone barn at the north-east corner of the brick structure. The original exterior wall of the north gable of the Phase B barn has a stepped projecting brick course which would have been visible on the outer face of the building as a decorative feature. Alternatively, it would have served as the support for the roof of an intended extension to the north. That such an extension was built is indicated by the scar of a roof line, set somewhat lower than the stepped brick course; this extension formed the Phase C construction.

The numerals '1757' are cut into two separate roof timbers in the barn (Fig. 2.31). They occur on the tie beam of the central of the three roof trusses as well as on the lower part of the king post of the southernmost



Fig. 2.34: Scale elevations of Building 4 (barn)

truss. In each case the roof timbers did not appear to have been re-used, with no sign of redundant peg or joint holes, and the three trusses appear to have been constructed from new timber for this building. Although on the face of it, this appears to be a date, and appears to be consistent with the construction and style of the building, it has been suggested that it is a mark characteristic of imported Baltic timber (Mark Adams pers. comm.).

*Barn Phase C: Intended ?late 18th-century extension*

The exterior of the north gable wall of the Phase B brick structure had an integral projecting stepped brick course. This was almost certainly constructed to support the roof timbers of a projected extension to the building. Whether the extension was ever built with such a roof line is uncertain. That an extension with a lower roof line was built, however, is demonstrated by the trace of a pitched roof line below the brick step course (see Phase D below).

*Barn Phase D: ?early 19th-century extension*

The Phase C extension was removed and replaced by a taller building in brick, with a hay loft above. This was probably constructed to allow the upper storey hayloft to be enlarged in the early 19th century.

*Barn Phase E: The outshut*

Built onto the south side of the stone Phase A structure was a brick outshut. The outshut incorporates part of the stone Phase A wall. The brickwork was English garden bond. The roof was covered with large blue Welsh slates, identical to those of the main building.

*Barn Phase F: Extension to NE corner of barn*

A brick-built extension to the north-eastern corner of the barn was identified from photographs and the 1906 Sherdley Estate Office drawing (Fig. 2.32). This structure was in a severe state of disrepair by the early 1980s and had disappeared by 2002. It was not apparent from the barn survey or identified in the 19th-century maps. This brick-built structure was an east-west aligned addition to the outshut, sharing part of the northern wall of the Phase E outshut which was originally part of the Phase A building. Its function is uncertain. Its addition to the overall outline of the barn may be discerned on the 1849 Ordnance Survey map. It is likely to be early to mid 19th century in date.

*Barn Phase G: Late modifications*

This phase embraces all the later blockings of doorways and other openings and the rebuilding of the carriage door piers on the west side of the Phase B barn. These events were not all contemporary but represent perhaps 150 years of later minor modification to the basic structure, extending close to the present day.

### 3. Environmental Report

#### Archaeobotanical Analysis and Report

*Ellen Simmons*

This report concerns the analysis of seven archaeobotanical samples recovered during the excavation of pit cuts at Big Lea Green Farm. Details of these samples are presented in Table 3.1. The fill of cuts 309 and 382 are dated by pottery to the late 16th to 17th centuries. Pit cut 377 is thought to be 17th century or earlier due to its stratigraphic position.

Significant numbers of wild plant seeds were recovered from these samples, which showed excellent organic preservation. Analysis of this material was carried out with the aim of investigating the source of the material deposited in the pits as well as the circumstances of deposition and the local environment as represented by the plant species whose seeds were incorporated into the pit cuts.

#### Methodology

**Samples 03, 05, 06, 10 and 11:** 2.5 litres of each sample were processed using bucket flotation. All flots were collected on 1mm and 0.3mm mesh, and the heavy residue wet sieved on a 1mm mesh.

**Sample 04:** 250ml of the possible cess sample was removed for parasite egg analysis. The remaining 0.3

litres was bucket floated. Flots were collected on 1mm and 0.3mm mesh, and the heavy residue wet sieved on a 1mm mesh.

**Sample 07:** An attempt was made to process sample 07 using bucket flotation but, as it consisted almost entirely of floating fraction, with very little heavy residue, this was abandoned in favour of wet sieving. 2mm, 1mm, and 0.3mm meshes were used.

The flots were dried and scanned with a low-power binocular microscope (magnification x7 to x45). The samples were found to be very rich in (mostly uncharred) plant remains, so the flots were sub-sampled using a riffle box to provide a suitable amount for sorting in the time available. The contents of the three wet sieve fractions of sample 07 were also dried, scanned and sub-sampled. The proportions of each sorted sample are presented in Table 3.1.

Flots were sorted under a microscope for identifiable plant remains. All items were removed, with the exception of the unidentified type 6 seeds, which were very common in several of the samples, and it would have been extremely time consuming to remove them all. These were one of the types that could not be identified. Charcoal was removed from the coarse flot. All of the heavy residues, and the greater than 2mm fraction of sample 07, were scanned with the naked eye for heavy plant remains such as nutshell.

Sample no	Context no	Context Description	Vol Processed (litres)	Method of Processing	Coarse Flot Fraction Sorted	Fine Flot Fraction Sorted
03	308	upper fill of pit 309, firm clay loam	2.5	bucket flotation	1/2	1/4
04	321	fill of pit cut 309, thin sandy lens - possibly cess	0.3	bucket flotation	1/1	1/1
05	322	fill of pit cut 309, firm silty clay, contains redeposited natural clay	2.5	bucket flotation	1/2	1/4
06	337	fill of pit cut 309 'clean' silty clay - earliest fill of cut	2.5	bucket flotation	1/4	1/8
10	381	fill of pit cut 377, silty clay- with charcoal flecks, contains redeposited natural	2.5	bucket flotation	1/1	1/4
11	389	fill of pit cut 382, soft silty clay loam, also contains leather shoe, horn cores and antler	2.5	bucket flotation	1/2	1/4
Sample no	Context no	Context Description	Vol Processed (litres)	Method of Processing	Wet Sieve >1mm Fraction Sorted	Wet Sieve >0.3mm Fraction Sorted
07	368	fill of pit cut 382, soft organic-rich	2.5	wet sieve	1/16	1/64

Table 3.1: Details of the environmental samples from Big Lea Green Farm. 1/1 of all residues and the >2mm fraction of Sample 07 wet sieve were sorted

Seeds were identified using the modern reference collection of the Bioarchaeology Laboratory, University of Sheffield and the photographs and drawings presented in various seed identification keys.

## Results

A full list of the plant types identified is presented in Table 3.2. Table 3.3 shows the full contents of each sample identified.

PLANT TYPE - GENUS, SPECIES	COMMON NAME
<i>Alnus glutinosa</i>	Alder
<i>Atriplex</i> sp.	Orache
<i>Carex bigelowii</i>	Stiff sedge
<i>Carex cf. flacca</i>	Glaucous sedge
<i>Carex cf. flava</i>	Yellow sedge
<i>Carex cf. remota</i>	Remote sedge
<i>Carex cf. rostrata / magellanica</i>	Bottle sedge / Tall bog sedge
<i>Carex vaginatus</i>	Sheathed sedge
<i>Carex</i> spp.	Sedges
<i>Cerastium</i> sp.	Chickweeds
<i>Chenopodium album</i>	Fat Hen
<i>Chenopodium</i> sp.	Goosefoots
<i>Chrysanthemum segetum</i>	Corn marigold
<i>Eleocharis cf. multicaulis</i>	Many stemmed spike rush
<i>Eleocharis cf. palustris</i>	Common spike rush
<i>Galeopsis bifida</i>	Hemp nettle
<i>Galium cf. saxatile</i>	Heath bedstraw
Gramineae	Grasses
<i>Juncus cf. inflexus</i>	Hard rush
<i>Juncus</i> sp.	Rushes
<i>Papaver</i> sp.	Poppies
<i>Polygonum arenastrum / aviculare</i>	Small leaved knotgrass / Knotgrass
<i>Polygonum hydropiper</i>	Water pepper
<i>Polygonum lapathifolium</i>	Pale persicaria
<i>Ranunculus acris</i>	Meadow buttercup
<i>Ranunculus flammula</i>	Lesser spearwort
<i>Raphanus cf. raphanistrum</i>	White charlock / Wild radish
<i>Rubus</i> spp.	Blackberries / Brambles
<i>Rumex actosella</i>	Sheep's sorrel
<i>Rumex</i> sp.	Docks / Sorrels
<i>Sambucus nigra</i>	Elder
<i>Scirpus fluitans</i>	Floating scirpus / Club rush
<i>Scirpus setaceus</i>	Bristle scirpus

Table 3.2: List of plant species identified in environmental samples from Big Lea Green Farm

Samples 03, 05, 06 and 11 were richest in terms of diversity of plant types. The majority of the plant remains were uncharred, the notable exceptions being the probable crop types which were charred. Barley grain was identified from Sample 06, cereals from

samples 03 and 11, and legumes from Samples 03 and 05. The rest of the assemblages consisted of the seeds and thorns of wild plants.

Charcoal was recovered from all samples. The presence of hairs, superficially resembling coarse animal hair a few centimetres in length, was noted in the residues of all samples. These occurred frequently and could be identified by a specialist. It was also noted that the unidentifiable remains that made up the bulk of the flots (and the wet sieved fractions of sample 07) were small pieces of woody material and bark.

Due to the high level of organic preservation it was possible to identify many of the seed types to species level, providing some detailed information on the ecology and biology of the plants which became incorporated into the pit cuts. Table 3.4 summarises this information.

A significant number of these plant taxa were found to have a preference for damp or waterlogged habitats such as *Carex* species (sedges), *Eleocharis* species (spike-rushes) *Juncus* species (rushes) and *Scirpus* species (club-rushes), with a more limited range from open, waste or cultivated habitats such as *Chenopodium* species (goosefoots) and *Chrysanthemum segetum* (corn marigold). Figure 3.1 illustrates the proportion of plant taxa in each sample representing various ecological groupings. Those, classified as unknown, which could not be identified to a sufficient level would in all likelihood have fallen under one of these groupings.

All the samples from pit cut 309 (samples 03, 04, 05, and 06) were composed of between 40 and 60% waterlogged or damp habitat taxa and, with the exception of sample 04, between 20 and 30% open/cultivated land taxa. In all, very few seeds were present in sample 04, none of which were open/cultivated land taxa.

Sample 07 from pit cut 382, which, along with sample 04, was interpreted as possible cess, contained very few seeds in all and none from plants with a preference for either damp or waterlogged habitats. However, sample 11, also from pit cut 382, exhibited similar proportions of plant species to samples 03, 05 and 06. Sample 10 from pit cut 377 also contained the seeds of plant species from open or cultivated land with the exception of a concentration of *Juncus* (rush) seeds.

The majority of the seeds in all samples were ripe and well developed. The season during which the seeds are ripe varies in different species and would reflect deposition that occurred over a limited period as well as any variations between contexts. Generally the plant species found in the richer samples, 03, 05, 06 and 11, were found to have fruiting periods ranging from early summer to late autumn, no doubt reflecting continuous deposition throughout the fruiting period of flowering plants in general.

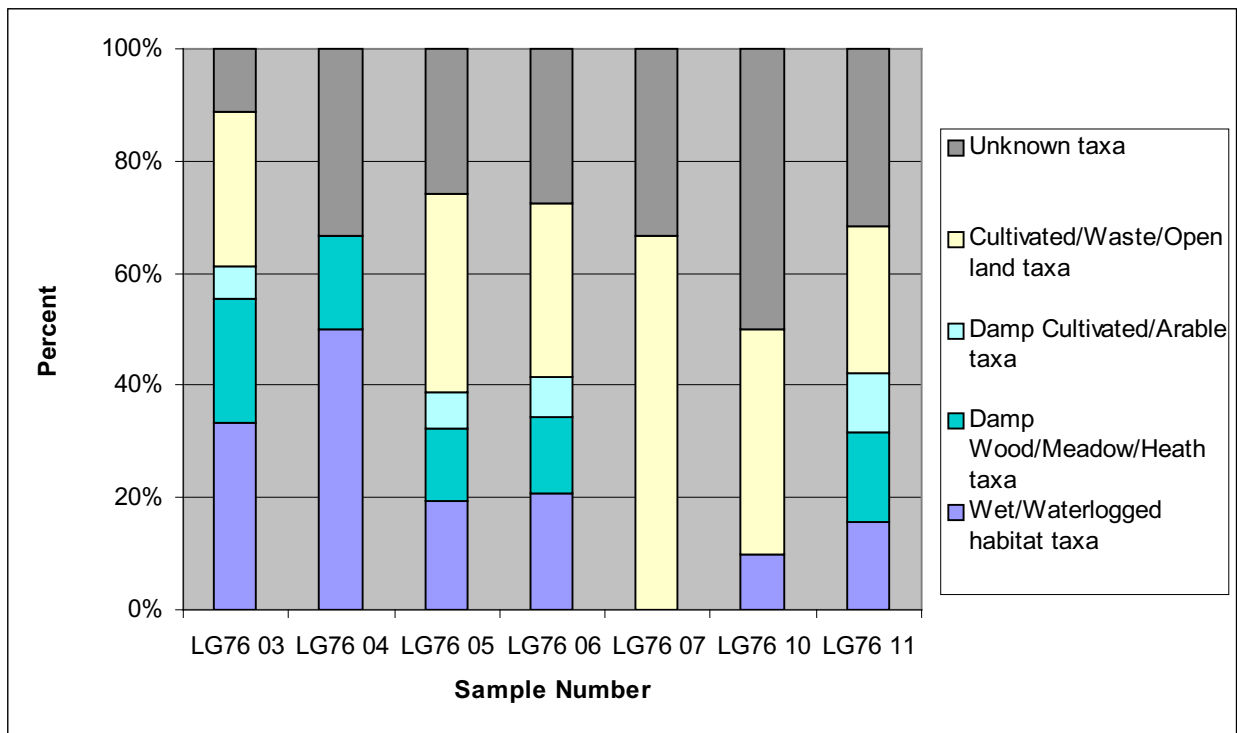


Fig. 3.1: Proportion of plant taxa in Big Lea Green Farm environmental samples grouped according to preferred natural habitat

Seeds found in samples 04, 07 and 10 indicate a more limited period of deposition from August to September although this is most likely to be a factor of the low number seeds and species diversity in these samples.

**Discussion**

Analysis of the environmental samples from Big Lea Green Farm has resulted in the identification of the seeds of a diverse range of plant taxa, a significant proportion of which would have been growing in either damp or waterlogged/very wet soil conditions.

The presence of such wetland plant taxa may represent rushes and sedges used as floor coverings and then discarded (Grieg 1981; Hall and Kenward 1980). This material may have become deposited in the Big Lea Green Farm pits in an attempt to soak up noxious deposits such as cess. The small pieces of woody material and bark noted as being present in all samples may have therefore served a similar purpose in soaking up wet or unpleasant deposits.

An interpretation of the samples, which contain large proportions of wetland plant taxa, as cess would, however, be speculative. The lack of bran fragments in these samples as well as the lack of evidence for food plants other than *Rubus* (blackberry / bramble) would seem to make this interpretation unlikely (Grieg 1981;

Hall *et al.* 1983). Samples 04, 07 and possibly sample 10 may prove to be exceptions as indicated by the presence of larger proportions of the weeds of cultivated land which may have been consumed with food although the results of the parasite egg analysis on sample 04 would provide more reliable evidence.

Analysis of any beetle fauna present in samples 03, 05, 06, and 11 may provide evidence as to whether the wetland plant taxa present in those contexts represents discarded flooring material or plants growing locally which became incorporated into the pit cuts through natural processes (Hall and Kenward 1980). The range of different wetland species recorded provides some indication that material originated naturally or was incorporated accidentally from a plant community growing nearby rather than plants intentionally collected for use as flooring (Hall *et al.* 1983). That samples 03, 05, 06 and 11 contained the seeds of plants with a variety of fruiting periods from early summer to later autumn would also support this interpretation.

The presence of possible animal hairs in all samples along with woody material and bark may indicate the possible use of the pits in the process of tanning hides for the production of leather. The presence of plants usually found growing in bog like soil conditions would not be inconsistent with this interpretation. Animal hides would be laid out in a tanning pit and soaked in a tanning solution usually created by layers of oak bark and sometimes other vegetation (Shaw 1984). Legally, hides were supposed to be kept in these layaways for at least a year (Shaw 1987), which may have provided a habitat suitable for a wetland plant community, which would then have naturally shed their seeds into the pits.

SAMPLE	LG76 03	LG76 04	LG7605	LG76 06	LG76 07	LG76 10	LG76 11
PIT NUMBER	309	309	309	309	382	377	382
Alnus glutinosa				1			5
Atriplex sp.						1	
Carex bigelowii	5		11	3			3
Carex cf. flacca	5		6				
Carex cf. flava	6		6	1			1
Carex cf. remota	9		8	2			
Carex cf. rostrata / magellanica	3						
Carex vaginatus	1						
Carex sp. (1)			1				
Carex sp. (2)	1		5	2			
Carex sp. (3)				1			
Carex sp. (4)				1			
Carex sp. (5)			1				
Carex sp. (6)			1				
Cerastium sp.			7	3			
Chenopodium album			3	30			
Chenopodium sp.	2		13	11			6
Chrysanthemum segetum			26	9.5			25
Eleocharis cf. multicaulis	24	2	24	8			
Eleocharis cf. palustris				1			
Galeopsis bifida		1	13	1			5
Galium cf. saxatile				1			
Gramineae (1)	8		3				1
Gramineae (2)			2			1	
Juncus cf. inflexus	42	1	18	24		216	2
Juncus sp.							
Papaver sp.			1				
Polygonum arenastrum / aviculare	1		12	13		1	1
Polygonum hydropiper			14	13			1
Polygonum lapathifolium			101	26			41
Ranunculus acris	3		6	1			3
Ranunculus flammula	2	1	5	2			
Raphanus cf. raphanistrum			1		2		
Rubus sp. (1)	8		4	2		4	2
Rubus sp. (2)	3.5		12	3			
Rumex actosella	16		27	19	5		2
Rumex sp. (1)	2		71	13			6
Sambucus nigra			1			1	
Scirpus fluitans	13		8	6			
Scirpus setaceus	10						
Unidentified (1)	1						1
Unidentified (2)				1			
Unidentified (3)		3	40	16	1	7	2
Unidentified (4)						1	
Unidentified (5)				6			4
Unidentified (6)						44	16
Unidentified (7)		2		4		8	
Bud?			2				
Small nut?							
Thorns							8
Seed head		1		1			2
Misc Plant Material	11	9	2	3	2	4	1
Legume > 1mm diameter	1		1				
Hordeum indet				1			1
Cereal indet				1			
cf. Cereal indet	2						
Culm node			13	2	1		4

Table 3.3: Full contents of environmental samples taken from Big Lea Green Farm

PLANT TYPE	FLOWERING PERIOD	FRUITING PERIOD	HABITAT
<i>Alnus glutinosa</i>	Feb - March	Autumn	Wet places in woods and by lakes and streams.
<i>Atriplex sp.</i>	July - Sept	Aug - Oct	Near sea, disturbed ground, cultivated ground.
<i>Carex bigelowii</i>	June - July	July - Aug	Damp stony places, mountains, heathy areas often where snow lies late.
<i>Carex cf. flacca</i>	May - June	July - Aug	Dry calcareous grassland, damp clayey woods, marshes, fens and bogs.
<i>Carex cf. flava</i>	June	July	On damp peaty soils, calcicole, base rich fens by lakes.
<i>Carex cf. remota</i>	June	July	Damp shady places, woods, hedgerows, shady banks and ditch-sides.
<i>Carex rostrata / magellanica</i>	June - July / May - June	July - Aug / June - July	Wet peaty places with constantly high water level, very wet bogs.
<i>Carex vaginatus</i>	July	Aug - Sept	Wet grassy places, damp slopes, flushes and on rock ledges
<i>Cerastium sp.</i>	April - Sept		Dry banks & waysides, grassland, calcareous or acid soils, sandy soil, shingle, waste places, arable land.
<i>Chenopodium cf. album</i>	July - Oct		Waste places and cultivated land.
<i>Chenopodium sp.</i>			
<i>Chrysanthemum cf. segetum</i>	June - August	Aug - Oct	Weed of arable soils and waysides, loamy and sandy soils.
<i>Eleocharis cf. multicaulis</i>	July - Aug	Aug - Oct	Wet peaty places, particularly acid bogs and wet sandy heaths.
<i>Eleocharis cf. palustris</i>	May - July	June - Aug	Marshes, ditches and margins of ponds.
<i>Galeopsis bifida</i>	July - Sept		Arable land, less often in woods, fens and wet heaths.
<i>Galium cf. saxatile</i>	June - August		Heaths, moors, dry grassland, rocky places and woods on acid soils.
<i>Juncus cf. inflexus</i>	June - Aug		Wet places, bogs, damp woods, preference for acid soils.
<i>Papaver sp.</i>	May - Oct		Arable fields, waste places, roadsides, sandy or gravelly soils.
<i>Polygonum arenastrum / aviculare</i>	July - Oct		Waste places, roadsides, all sorts of open ground.
<i>Polygonum hydropiper</i>	July - Sept		In damp places or in shallow water in ponds and ditches.
<i>Polygonum lapathifolium</i>	June - Oct		Waste places, cultivated ground, particularly damp ground, beside ponds.
<i>Ranunculus cf. acris</i>	May - July	May - Aug	Damp meadows and pastures, calcareous soils.
<i>Ranunculus flammula</i>	May - Sept	July - Oct	All kinds of wet places.
<i>Raphanus cf. raphanistrum</i>	May - Sept		Weed of non calcareous soils, cultivated and rough ground, waste places.
<i>Rubus spp.</i>	May - Sept		woods, scrub hedges and heaths.
<i>Rumex actosella</i>	May - Aug	July - Sept	Heaths, grassland, cultivated land, common on acid soils, less frequent on calcareous soils.
<i>Rumex sp.</i>	May - Oct		Grassland, woodland clearings, wet places, wasteland, dry sunny places and muddy ground.
<i>Sambucus cf. nigra</i>	June - July	Aug - Sept	Woods, scrub, roadsides, waste places, disturbed base or nitrogen rich soils.
<i>Scirpus fluitans</i>	June - Sept	July - Oct	In ditches, streams and ponds particularly those with peaty water.
<i>Scirpus setaceus</i>	May - July	June - Sept	In damp places among taller herbage in grassy meadows, more often in bare, sandy / gravelly places and beside lakes.

Table 3.4: Biology and ecology of wild plant taxa identified in environmental samples from Big Lea Green Farm

However, the plant assemblage alone is not sufficient to establish that the pits were used in tanning processes. Chemical analysis of the soil samples taken from the Big Lea Green Farm pits may provide more conclusive evidence for the presence of tanning solutions (Shaw 1987). The possibility must also be taken into account that wetland plant seeds may have simply been brought to the site on muddy shoes from some nearby water source and incorporated into the pits.

## Conclusion

The analysis of environmental samples taken from pits excavated at Big Lea Green Farm has resulted in

the identification of a diverse range of plant species, particularly in samples 03, 05 and 06 from pit cut 309 and sample 11 from pit cut 382. These samples were found to contain high proportions of wetland plant taxa, which, it was concluded, are most likely to represent a plant community growing in proximity to the pits due to the variety of species, and fruiting periods ranging from early summer to late autumn. It is also, however, possible that rushes and sedges used for flooring were dumped in the pits, possibly to cover up noxious or wet material.

Chemical analysis of the soil samples and identification of the hairs found to be present in the samples may

help to establish whether wetland plants were located in proximity to the pits due to their use in tanning processes. Alternatively, seeds of wetland plant taxa may have been brought to the site in mud from some nearby water source. Parasite egg analysis of sample 04 may help to establish the possible presence of cess in context 321 of pit cut 309. Seeds from weeds of cultivation may be present as a component of cess. Analysis of any beetle fauna present in the samples would also aid interpretation of the purpose and source of the material in the pits.

## Vertebrate Remains

*Deborah Jaques*

### Introduction

The vertebrate remains discussed in this report were recovered from some of the earliest features discovered on the site. The assemblage was almost exclusively cattle horncores, although additionally, a single red deer antler, a number of horn tips and several large mammal shaft fragments were recorded. Only three deposits were represented, of which two (contexts 308 and 389) were fills within Pits 309 and 382. These pits produced a vast array of finds, the waterlogged conditions within them promoting the preservation of leather, woodchips, antler and horn. Pottery was also recovered, establishing a 16th-century date for the fills from Pit 382, whilst ceramic evidence from Pit 309 suggested a broader chronology for this feature. Context 308, from which a number of horn tips were recovered, may have been contaminated by the overlying layer, context 324 which was a garden soil with finds dating from the 16th century through to the 20th century.

### Methods

#### *Vertebrate remains*

Following excavation of the waterlogged deposits at the site, the vertebrate material had been kept wet. On receipt, the material was air-dried. Records were made of the hand-collected vertebrate remains concerning the state of preservation, colour of the fragments, and the appearance of broken surfaces ('angularity'). Other information, such as fragment size, dog gnawing, burning, butchery and fresh breaks, was noted, where applicable.

Fragments were identified to species or species group using the Palaeoecology Research Services' modern comparative reference collection. The bones which could not be identified to species were described as the 'unidentified' fraction. Within this fraction fragments were grouped into two categories: large mammal (assumed to be cattle, horse or large cervid), and totally unidentifiable.

Morphological characteristics of the horncores (i.e. shape, curvature) were recorded where possible according to classifications devised by Armitage and Clutton-Brock (1976) and Armitage (1982). Cattle horncores were assigned, where possible, to the age categories devised by Armitage (1982) and measurements followed those outlined by von den Driesch (1976).

### Results

#### *Cattle horncores*

Table 3.5 shows a summary of the horncore records including, where it was possible to attempt such distinctions, the age and sex of the individuals represented. The allocation of even the more complete horncores to Armitage's age classes was made particularly difficult by the very poor preservation. Sex was also hard to determine, as none of the cores were complete and their overall shape and length could only be surmised.

Context 389, a 15th-/16th-century pit fill, produced the vast majority of the remains, including all the cattle horncores. Approximately ten horncores were recovered, together with 62 small horncore or cranial fragments. Preservation was extremely poor and the fragments were mostly very brittle and easily broken. None of the horncores were complete, most comprising the basal portion and associated cranium. Where fragments of the same horncore were suspected, their fragile nature prevented any attempt at reconstruction. Almost all the cores showed evidence of removal from the skull. Typically, they were chopped at the base and had been removed along with varying portions of the adjacent frontal and parietal bones.

Following the age classes outlined by Armitage (1982), most of the individuals were in category 4, that of adult individuals aged between 7 and 10. Two cases may be representative of slightly older animals, whilst several others were too eroded to be assigned to a class, but were not thought to be from juveniles.

None of the cores were complete, but five were sufficiently intact to suggest that the overall length of these cores (as determined by measuring the length of the outer curve) would have been mostly greater than 200 mm and in the case of SF340 more than 220 mm. On the basis of Armitage and Clutton-Brock's original system (1976), these cores would be from medium or long horned animals. However, Armitage's revisions (1982) would reclassify them as short- or medium-horned individuals.

With so many incomplete horncores, determination of sex from the cores based on visual examinations proved to be rather difficult; the overall shape was mostly

SF.No.	Max diam.	Min diam.	BC	*Length	Index	**Group	Sex	Age Class	Notes
339	47.11	38.24	138	>170	81.2	medium horned	cow	4	Horncore with associated cranium. Very poor preservation - brittle and surface of core eroded.
340	55.99	49.41	172	>221	88.2	?long horned	ox	4	Horncore with associated cranium. Chopped through base of core and cranium.
341	58.08	49.22	171	>160	84.7	medium horned	?ox	4'/5	Right horncore with associated cranium. Fragile but reasonable preservation. Chop at base of core.
342	51.73	46.18	161	>200	89.3	medium horned	cow/ox	4	Right horncore with associated cranium. Preservation fair but horncore fragile. Chop at base of core.
343	51.37	43.3	154	>200	84.3	medium horned	?cow	4	Left horncore with associated cranium. Chopped down middle of skull. Tip broken but outer curvature length would have been greater than 220 mm.
344	57.87	44.09	-	-	76.2			4	Right horncore base with associated cranium.
344	53.33	44.42	142	-	83.3			4'/5	Right horncore with associated cranium. Chopped through base of core and cranium.
344	47.54	39.86	140	-	83.8			too eroded	Left horncore with associated cranium. Preservation very poor, some evidence chopped at base of core. Probably adult, although surface of bone almost completely destroyed.
344	-	-	-	-	-			4	Part of horncore. Preservation very poor.
344	-	-	-	-	-			too eroded	Remains of a core which represents a robust and large individual, possibly a bull, but erosion too great to determine sex or age.
344	-	-	-	-	-				62 fragments of bone, mostly horncore pieces. 75% are less than 5 cm in any dimension. Preservation is exceedingly poor and many of the fragments are brittle and rather fragile. None are measureable and there was no possibility of reconstructing the cores.

Records of the cattle horncore remains from Context 389 from Big Lea Green Farm. Group, sex and age class classifications follow Armitage and Clutton-Brock (1976) and Armitage (1982) and measurements follow those outlined by von den Driesch (1976). Key: SF. No. = small find number; Max diam. = maximum diameter (mm); Min diam. = minimum diameter (mm); BC = basal circumference (mm); Index = (minimum diameter/maximum diameter)x100; Group = length/type of horncore after Armitage and Clutton-Brock 1976; \* Length of surviving portion of the core; \*\* As none of the cores were complete the group classification was based on the overall shape and size of the remaining portion of the core.

Table 3.5: Cattle horn cores from Big Lea Green Farm; minimum basal diameter against maximum basal diameter. Measurements in millimetres

uncertain. Using biometrical data, it was possible to calculate an index (minimum diameter at the base of the core divided by the maximum diameter at the base, multiplied by 100) which allows a distinction to be made between the shape of the cores of males and females. According to Armitage and Clutton-Brock (1976) the horncores of bulls tend to be oval in cross section, indicated by a low index value, whilst those of cows are circular and produce a higher index value. Where the shape of the core and the type of core (e.g. medium-horned) had been deduced, the index values suggested the animals represented were either cows or oxen. A single index value, from a core where only the base was present, was somewhat lower and this may represent a bull.

Horncore measurement data are notoriously difficult to interpret since several explanations for observed patterns are possible. Figure 3.2 shows values from Big Lea Green Farm horncores plotted with data from several other sites of medieval and early post-medieval date (Dobney *et al.* 1996; Carrott *et al.* 1997). The scatter plot shows a range of sizes, but that, regardless of date or location, the basic shape of the cores is similar. Very few outlying points reflecting the more oval shape of the entire males can be seen, suggesting that most of the individuals represented were either cows or oxen; the larger individuals in the chart perhaps more likely to be the castrates. Values from the Big Lea Green Farm horncores form a cluster in the middle of the plot perhaps indicating that the animals represented

here were mainly steers. The distribution pattern may equally be showing that different varieties of cattle were present at the site. However, it is clear from the few estimated lengths of horns from the Big Lea Green Farm assemblage that improved varieties of cattle (as indicated by the presence of the long horned individuals) are absent here. This also appeared to be the case for the Doncaster assemblage (Carrott *et al.* 1997).

#### *Horn and antler*

Worthy of note were 11 horn tips recovered from context 308, another pit fill, provisionally of late 15th- to 18th-century date. Although horncores are frequently recovered from archaeological sites, the horn sheath itself rarely survives. The horn tips showed a layered appearance and were quite fragile with eroded, flaky edges.

Before the horn can be utilised, it has to be detached from the bony core. Separation was achieved either by prolonged soaking in pits or by leaving the horns lying in the open air so that the connective tissue between the sheath and the core desiccates and decomposes, making removal from the core easier (MacGregor 1989; 1991; Prummel 1978). The absence of the bone cores within the deposit (context 308) suggests that the horn sheaths had already been separated. The horn tips may, therefore, represent a deposit of whole horns (the rest of the horn sheath, being less robust and not surviving) or the tips of the horns may have been deliberately removed and deposited separately.

The single, poorly preserved antler fragment from this deposit was identified as red deer (*Cervus elaphus* L.). It had been naturally shed and included the burr, part of the main beam and the brow tine. No chops or knife marks or evidence of 'working' were observed.

#### *Vertebrate remains other than horncores and horn/antler*

Ceramic evidence suggested a provisional 13th-/14th-century date for context 381. This deposit produced a single large mammal shaft fragment showing very poor preservation. The original surface of the bone had been completely destroyed. Several other large mammal shaft fragments were recovered from context 389, but none were of any interpretative value.

#### **Discussion**

Deposits from Big Lea Green Farm yielded an interesting collection of vertebrate remains, clearly associated with a number of possible craft activities. Concentrations of horncores have often simply been thought to be characteristic of horn working, however, it is possible that both butchers and tanners could also be responsible for such accumulations of waste. A seemingly common practice during the medieval and post-medieval periods was for hides to be delivered to the tanner with horncores attached (Cherry 1991). The horns would constitute a useful by-product which could be sold on to the horners, either intact, (i.e. the horncore with the outer sheath still attached) or as the horn sheath only. At Big Lea Green Farm, the pit from which

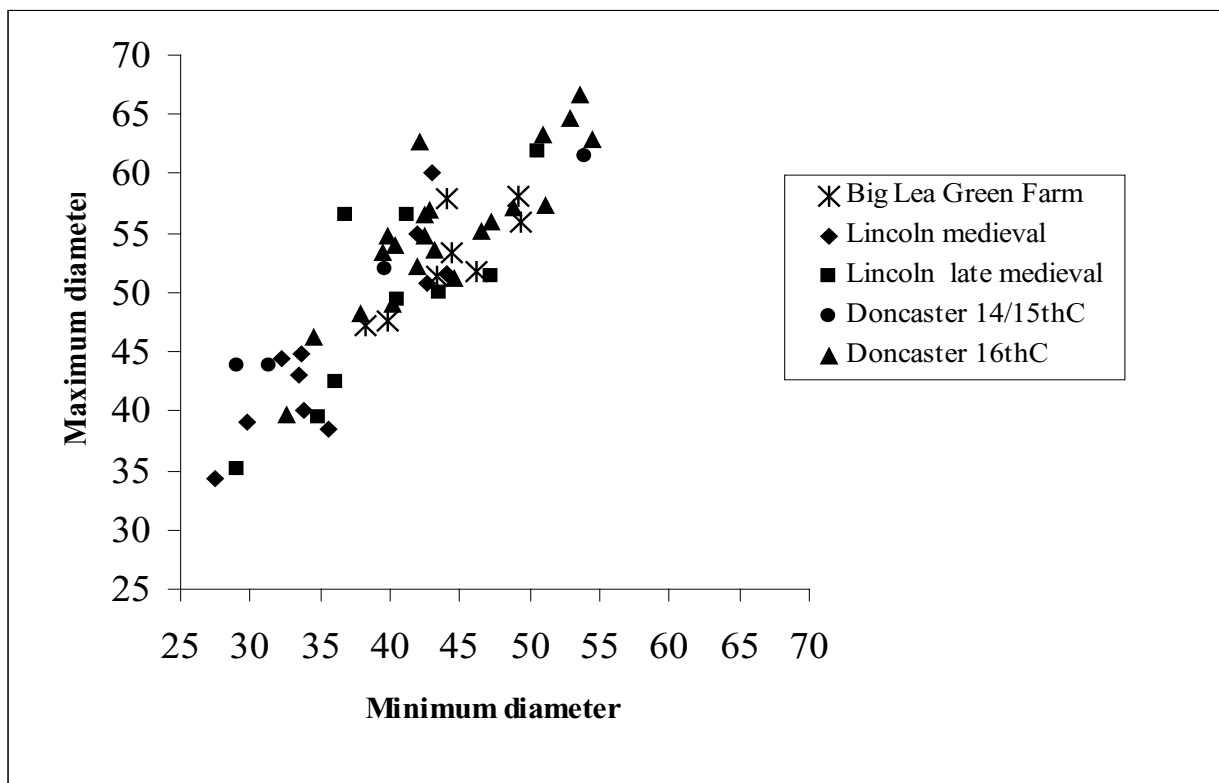


Fig. 3.2: Comparison of Big Lea Green Farm horncores with other medieval and early post-medieval sites

the horncores were recovered also produced organic remains which represented waste from leather working and possibly from the tanning of hides. The horncores themselves had all been deliberately removed from the skull, with the intention, one presumes, of using the horn. However, there is no clear evidence that horn working was actually undertaken at the site. The horn tips recovered from context 308 suggest that the horn was not sent elsewhere, but the solid tip of the horns was sometimes removed prior to soaking or decomposition, possibly to facilitate separation of the keratinous sheath from the bone core (MacGregor 1989; 1991). It is also the case though that the tip could be used without any further preparation as a raw material for the production of handles, buttons and thimbles.

Concentrations of horncores have mostly been recovered from medieval and post-medieval deposits, typically located on the periphery of urban occupation and representing large scale commercial activities, e.g. Hornpot Lane, York (Wenham 1964), The Green, Northampton (Harman 1996) and North Bridge, Doncaster (Carrott *et al.* 1997). At Big Lea Green Farm, the settlement is more rural and the accumulations of waste are of a more limited nature. Preservational conditions may be partly responsible for the absence of vertebrate remains, but the activities conducted at the site are likely to have been on a far smaller scale than those encountered in urban situations. Cattle were probably bred and slaughtered at the site and the by-products, such as hides and horn, used locally on the estate rather than produced in vast quantity for sale elsewhere.

Evidence from the horncores suggests that the cattle were slaughtered once they were fully mature and were perhaps no longer of use for milk production or for traction. Most animals represented would appear to be cows or oxen, with only a single individual that may have been a bull. However, the specialised nature of the assemblage may mean that the remains are only representative of a subset of the population which were selected specifically for their hides or horns.

By the late medieval period, antler working as a specialised industry had almost ceased to exist (MacGregor 1991), although antler was still used occasionally for the production of specific items, such as knife handles or gaming pieces. MacGregor (1989; 1991) suggests that the decline in utilisation of antler as a raw material stemmed from a decrease in itinerant craftsmen and an increase in artisans who chose to be based in urban centres and used more readily available resources, such as bone and horn. The supply of antler may also have been subject to stricter controls with the expansion of laws pertaining to rights of access to forests and their resources (MacGregor 1991). The manufacture of tools and artefacts from antler may have been undertaken at Big Lea Green Farm, but evidence for this is, at best, scant.

#### **Archive**

All material is currently stored by Palaeoecology Research Services (Unit 8, Dabble Duck Industrial Estate, Shildon, County Durham), along with paper and electronic records relating to the work described here.

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## 4: The Finds

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*Jeff Speakman*

### Introduction

The relative lack of medieval and early post-medieval finds from historic south-west Lancashire necessitated a policy of almost 100% recovery of finds from the excavation. This included stray finds, from across the site, which were recorded with limited locational information. Samples of architectural ceramics and worked stone were also collected from most structures.

The finds were retrieved from the site within context groups. During the post-excavation phase they were sorted and recorded onto a Microsoft Access database using the NML Archaeology recording system. All diagnostic pieces dating to the 18th century and earlier were recorded and bagged separately. This entailed the recording of many of the early finds to individual pieces. Most of the later material, except where large parts of individual vessels could be identified, and body sherds, which could not be assigned to individual diagnostic pieces, were entered as bulk records. Where possible, the later 19th- and 20th-century finds have been loosely grouped together to aid future specialist examination.

All the 18th-century and earlier pottery, and clay tobacco pipe, has been marked but later material has been retained, unmarked, until a decision on discard policy has been made.

A total of 20,870 finds was recovered, weighing almost 917 kg, from 128 contexts and from unstratified deposits. Many of the finds are from 19th-century or later contexts and have not been subject to specialist examination. These include molluscs, bone, building materials of ceramic, plaster and stone, industrial waste and glass. Most of these finds have been retained in the archive.

All finds are from the main excavation trench XVIII unless stated otherwise.

## Pottery

### Introduction

In 1994 the English Heritage report *Medieval Ceramic Studies in England* recommended 'selective excavation' in order 'to recover a sequence of medieval and early post-medieval wares for southwest Lancashire' (Mellor 1994, 68). The development at Big Lea Green Farm provided a rare opportunity to excavate such a site.

Pottery was by far the largest group of material recovered from the excavation, representing 77% of the

total assemblage by number and just short of 50% by weight.

The pottery is divided into period groups as follows:

Period	Total Number	Weight (g)
Uncertain	42	1761.4
Late-Medieval	22	603.0
Early Post-Medieval	524	16961.9
Post-Medieval	7015	337734.6
Modern	8584	80297.8
Total	16187	437358.7

*Table 4.1: Pottery by general period*

### Methodology

The pottery is recorded by general ware/fabric type, with a count of the individual sherds present and a total weight for each record. Each record was assigned a unique identification number.

### Provenance

Much, if not all, of the late medieval and post-medieval pottery from Big Lea Green Farm is likely to have been produced locally. (For a further discussion on south-west Lancashire pottery production see below). Indeed, even by the 19th century, when much of the fine whiteware pottery in use would have been dominated by the products of the Staffordshire potters, local potters continued to supply the coarser end of the market, in the production of brown stoneware, dark-glazed wares, unglazed flower pots and chimney pots.

### The late medieval pottery (13th-15th century)

At Lea Green there appear to be two distinct chronological groups within the late medieval pottery. The earlier, dating to the 13th-14th century, consists of only four sherds, from three vessels. They comprise two small sherds from unidentifiable vessels and two joining sherds from a jug base (which may have been broken during excavation). None of the medieval sherds are illustrated.

1. A small base sherd in a pale firing fabric with a reduced grey core to interior margin. There are many rounded milky quartz inclusions up to 1 mm, with occasional larger inclusions. The interior has a brown slip and a small grey area the remains of a patchy glaze. SF1805, evaluation trench VII, context 31.
2. A small, very abraded body sherd in a soft sandy fabric, pink/orange in colour with a reduced grey core with occasional haematite or marl inclusions; externally, a small spot of orange-green glaze and orange-brown slip. SF236, unstratified in the north-western area of trench XVIII.

3. Two joining sherds of a jug base in a fine pale firing, reduced grey, fairly hard and gritty fabric with a patchy pale green glazed exterior (SF1779, context 381). The only finds recovered from this pit.

The later group of medieval pottery probably belongs to the late 14th-15th century and consists of 18 sherds (486.8g) from nine vessels. Most are made in hard high-fired, reduced, sandy fabrics with dark patchy glazes. The fabric is harder, more highly fired and with darker glazes than the other medieval fabrics.

These fabrics are similar to the highly fired grey fabrics found in excavations at Speke Hall, represented there by large jugs and jars, thin-walled with sagging sides, which were associated with rubbish levels dated to the late 15th century (Higgins 1992a, 56).

4. Eight sherds in a highly fired, grey reduced, sandy fabric with dark patchy glaze. Although there are no physical joins, they are probably from the same jug. SF1085, context 355.
5. Two unstratified body sherds. SF212.
6. A body sherd from a jug or pitcher, in a very high-fired, reduced and overfired, quartz-rich fabric with occasional spots of dark exterior glaze. SF1808, trench VII context 31.
7. A base sherd in a very high-fired, reduced and overfired sandy fabric with an unglazed pink interior surface. SF1751, context 119.
8. A shallow stab-decorated handle in a very hard, high-fired, reduced grey sandy fabric with a dark orange oxidised core. SF1161, unstratified.
9. A body sherd in a fairly soft, oxidised, orange firing, sandy fabric with an even dark brown, almost metallic, exterior glaze. SF752, context 77.
10. A body sherd in a fairly coarse, hard, high-fired and reduced fabric with an even, green interior glaze and traces of a thin exterior purple glaze. SF1287, context 328.
11. A body sherd in a hard, oxidised, orange fabric (with a thin reduced grey core), rich in rounded quartz inclusions, with a patchy dark interior and exterior glaze. The sherd has very pronounced throwing rings. SF1702, context 275.
12. Two joined body sherds in a hard, high-fired, reduced grey fabric, rich in rounded quartz inclusions and with a patchy green interior and exterior glaze. The sherd is decorated with applied thumb-impressed scales in a strip. SF1706, context 275.

### *Discussion*

The initial desk-based assessment suggested that Big Lea Green Farm was occupied from at least the medieval period. The excavation produced some corroborative evidence for this, in the form of four sherds of 13th- and 14th-century pottery and 18 sherds of late 14th- to 15th-century pottery. These were either unstratified or residual in later contexts and indicate the near-complete clearance, and redesign of the site, during the post-medieval period, consistent with the continuous occupation of the site up to the present day.

Only one context, 31, the fill of a shallow gully aligned north-east by south-west in evaluation Trench

VII, produced finds of a consistently early date; two pottery sherds, one medieval (SF1805) and one late-medieval (SF1808). The full length of the gully was not established, but it ran for at least 2.4 m. The artefactual evidence suggests that this is the earliest surviving feature on the site, probably dating to the 15th century.

### **The early post-medieval pottery (late 15th to early 17th century)**

The early post-medieval pottery forms the early part of a continuum of dark-glazed ware and can be divided into two main categories; fine-wares, intended for the table, and coarse-wares largely for use in the kitchen or dairy.

There is a total of 524 sherds of early post-medieval pottery, weighing 16.962 kg., from 48 contexts and from unstratified deposits. This represents the earliest sizeable component of the assemblage, and indeed one of the largest groups of pottery of this date recovered from any excavations in the area. Unlike much of the later 17th- and early 18th-century material, many of the earlier post-medieval vessels are fragmentary, reflecting the age of the pottery and the continued occupation of the site.

### *Dating*

Early post-medieval dark-glazed wares appear in West Yorkshire and the Midlands by the late 15th century. They are a common find on monastic sites of the late 1530s and 1540s, developing into dark-glazed wares towards the end of the 16th century (Brears 1971b, 19, n. 11; Brears 1983, 215; Barker 1986a, 53; Moorhouse and Roberts 1992, 85; Moorhouse and Slowikowski 1992, 107; Cumberpatch 2003, 96). Locally, documentary and fieldwork evidence suggests that they were in production in south-west Lancashire from the early part of the 16th century (Davey 1991, 127 and 132-6). The evidence from excavations in Staffordshire shows that early post-medieval dark-glazed wares continued to be produced alongside the early dark-glazed wares until the middle of the 17th century (Barker 1986a, 53).

The best dated local group was recovered from excavations at Speke Hall, in deposits sealed when the building was extended over the moat c. 1550 (Higgins 1992a, 56). At Kemble Street in Prescott, excavations during 1987 recovered purple-glazed sandy coarse wares dated to the second half of the 16th century (unpublished NML Archaeology excavation reports). Similar pottery was recovered from the dissolution layers at Norton Priory of the same period (Greene and Noake 1977, 58-9), a midden deposit at Lymm, Cheshire, of the later 15th century (Bearpark and Johnson 1977, 48-51, nos. 4, 5, 7, 9-11, 14, 19-21, 24-27), at Bewsey Old Hall, Warrington (Lewis *et al.* 2011, 117-23) and at Eccleston Hall, St Helens (unpublished NML Archaeology/Giffords Archaeology excavation reports).

By analogy with the forms and fabrics found elsewhere,

and following Brears's suggestion that decorated pieces were quite short-lived, within a period before and after the dissolution of the monasteries (Brears 1971a, 19), the lack of decorated sherds may represent a chronological distinction, suggesting that most of the pottery can be dated to at least the late 16th century. However, some of the sherds may represent a development of these wares into the early 17th century (e.g. SF1131), possibly explaining their presence alongside other mid 17th-century wares in deposits at Lea Green.

#### *Provenance*

Whilst no kilns for this period have been discovered in the North West various authors have noted the differences between south Lancashire pottery and other known production centres.<sup>1</sup> Le Patourel (Tyson 1986, 107) postulated as early as 1966 the likelihood of there being a kiln in the Manchester area and examination of the material from Prescott (Davey 1978b), Bewsey Old Hall (Lewis *et al.* 2011, 117-123) and Norton Priory (Green and Noake 1977, 58), amongst others, also suggests that a production source in south Lancashire is likely. Documentary and fieldwork evidence shows that the area had become a production centre by the early 16th century and that it was widespread by the middle of the 17th century (Davey and Morgan 1978, 126-8; Davey 1978b, 2-3; Cleaver 1982; Davey 1989b, 103-5; Davey 1991, 127 and 136; Cowell 2003, 162-3; Chitty 2003, 196-7). Whilst there are parallels between the finds from the excavations at Lea Green and those recovered from the kiln sites at Wrenthorpe, in West Yorkshire, the strong commercial and possibly family contacts between Wrenthorpe and south Lancashire (Moorhouse and Slowikowski 1992, 109-10), suggest that most of the Lea Green finds are from a local production source

#### *Decoration*

Decoration appears to be relatively limited, from the literature on sites excavated in south Lancashire. Moorhouse's analysis of the decorative motifs at Wrenthorpe, West Yorkshire, for example, shows a much wider range of decorative elements than seen west of the Pennines (Moorhouse and Slowikowski 1992, 91-5). This might suggest that decoration is less common within the local tradition. However, Brears suggests that decoration was only used for a short period and the lack of decoration on pottery from the excavations may, therefore, be an indication of the date rather than a true reflection of the differences between the traditions of the two areas (Brears 1971a, 19; Cumberpatch 2003, 14). Further analysis of a much wider group of decorated material from west of the Pennines is required to clarify this point.

<sup>1</sup> Excavations at Church Road, Rainford in 2011 revealed part of a kiln dump which contained later 16th century dark-glazed fine and coarsewares. The assemblage represents the first production group of this period from south-west Lancashire (Rowe 2011).

There are fragments of six styles of decoration within the Big Lea Green Farm material, some of which represent only minor differences:

- A. A simple trailed slip design. This form of decoration is confined to one globular fine-ware cup; a joined arch design at the rim and an 'open flower' on the body (SF1187, context 237, Fig. 4.1.2).
- B. A simple incised wavy-line decoration, often with a repeated pattern but apparently drawn as single lines (SF201/SF872, Fig. 4.2.10 and SF195 Fig. 4.3.31 and SF1178 Fig 4.3.33). This is a common decorative device and would appear to be a long lasting and widely used decorative form. It occurs on examples of medieval jugs at Sandal Castle (Moorhouse 1983, fig. 28, 295, 296 and 306, dated to the 15th century; fig. 61, 701, fig. 70, 769, fig. 83, 925). It is also seen as far away as Norwich where it is always found on storage jars with narrow tops and pronounced lid seated rims, but is also common on many hollowware forms (Jennings 1981, 61).
- C. A repeated pattern of wavy lines (e.g. SF206, Fig. 4.3.40), which appears to be more neatly parallel than the design above, and suggests the use of a comb rather than a single pointer (SF1257 Fig. 4.2.20, SF743 Fig. 4.2.21, SF553 Fig. 4.2.24 and SF206 Fig. 4.3.40).
- D. A thumb-impressed strip applied horizontally, to the shoulder of vessels (e.g. SF215, Fig. 4.4.46). This is a common decorative technique throughout the country from the 12th to 16th centuries. The fabric and glaze of the Lea Green example suggests a 16th-century date for this piece. A second example has a slight adaptation to this form of decoration where the thumb-impressed strip has incised line or combed decoration (SF953/SF1093 Fig. 4.3.27).
- E. Circular wheel-stamps, stamped directly onto the body of the vessel (SF553, context 258 Fig. 4.2.24). This form of decoration only appears on one vessel, a jar or jug, where it is combined with an incised combed wavy-line decoration. It appears to be a common form of decoration with similar wheel-stamps found on vessels from Eccleston Hall, St Helens (NML Archaeology site 21) and on Cistercian wares from Staffordshire (Ford 1995, 201, fig. 22). A similar combination of stamped and combed decorative techniques occurs on vessels from Ashton, Cheshire in the early 14th century (Rutter 1977, 70-3), although the fabric and glaze of the Lea Green vessel suggest a 16th-century date.
- F. Zigzag rouletted lines; these appear on one jar rim in conjunction with incised single and combed wavy lines (SF195, Fig. 4.3.31).

#### **Early post-medieval dark-glazed fine-wares**

The early post-medieval fine-wares were first recognised on Cistercian Abbey sites in the north of England in the 1880s, hence the common name 'Cistercian wares'

(Micklethwaite 1893, in Barker 1986a, 52). A type series was published in 1965 by Le Patourel (1965, 116-9) and revised in 1971 by Brears (1971a). Moorhouse's study of the pottery from Wrenthorpe (Moorhouse and Slowikowski 1992, 91-5 and 110-8) and David Barker's Staffordshire Type Series (Barker 1986a, 52-7) illustrate the regional variations.

At Lea Green there is a total of 83 sherds, weighing 1384.2 g (average sherd weight 16.7 g). Amongst the ten rim sherds it is possible to identify nine individual vessels, with several other vessels represented only by separate base or body sherds. There are also three sherds of reduced green-glazed pottery (weight 22.1 g), which probably represent a variation within the ware.

#### Fabrics

The vessels were made in a fine fabric, varying in colour from orange to a dark red or purple, depending upon the firing temperature and conditions, and often highly fired to a near stoneware. The vessels were thickly glazed, both externally and internally, with an overall coat of metallic brown to a quite glossy, dark-brown or black, iron-stained lead glaze.

#### Forms

The main forms present are a range of cups. The development of fine cups represented one of the most significant developments in pottery use in Britain. Previously such vessels had been made of perishable substances, such as wood or leather, which tend not to survive in the archaeological record (Brears 1971a, 18; Barton 1975, 120; Draper 2001, 7).

Many of the vessels are very fragmentary and only a few merit illustration (Fig. 4.1).

#### Catalogue of the early post-medieval fine-wares

(Figure 4.1)

1. The most complete form represented at Lea Green is a fairly tall, lid-seated, barrel-shaped cup or mug with two

handles, of oval section, and with turned decoration at the waist. It was recovered from a number of contexts SF1179, context 237; SF297, context 258; SF295, context 275; and SF294, context 316. The largest parts came from layers either overlying, or part of, the upper fill of ditch 238. It was made in a fine, hard compact fabric overfired to a purple colour with an even interior and exterior metallic brown glaze mottled to black. The base has curving wire cut marks. Similar vessels are illustrated from Manchester and Bury, although with a much more out-turned rim (White 1983, 62 fig. 49, 1231; Tyson 1986, 110-3, fig. 15,51).

2. Globular, necked, cup with upright slightly flaring rim; SF1187, context 237. The vessel has a simple slip trailed arch design at the rim and an 'open flower' on the body. The style of the design is not dissimilar to examples found at Buckley, north Wales, although the fabric is even, oxidised and red, and it appears to be a local product.
3. Globular cup represented by single body sherds. The shape suggests that the vessel had a wide-mouthed, or flared rim. There are only two examples of this form (SF800, context 77 and SF1066, context 355). No complete profiles were recovered.
4. Base of barrel-shaped cup or mug, SF252/SF1200.
5. Barrel shaped cup or mug with out-turned rim, and with turned decoration at waist, SF1131, context 258. SF768 and possibly SF767 context 77 represent the same form but are not illustrated. The rim form and turned decoration appears on a 17th-century blackware form at Wrenthorpe (Moorhouse and Slowikowski 1992, 121 fig. 61.192).
6. Barrel-shaped cup or mug, SF358, context 88/SF823, context 77, as catalogue 5.
7. Globular cup, wider than above, with an in-turned, ill-defined lid-seated rim and no decoration, SF223, context 154. The form is paralleled in the assemblage from Bewsey Old Hall (Lewis *et al.* 2011, 119, fig. 60, 3) and has a similar general form to the Wrenthorpe undecorated type 1 (Moorhouse and Slowikowski 1992, fig 52.11-19 and fig. 55.75).

#### Early post-medieval coarse-ware

Although the term 'early post-medieval coarse-ware' has been used here, the term 'North West Purple Ware' has been proposed for this material to emphasise the

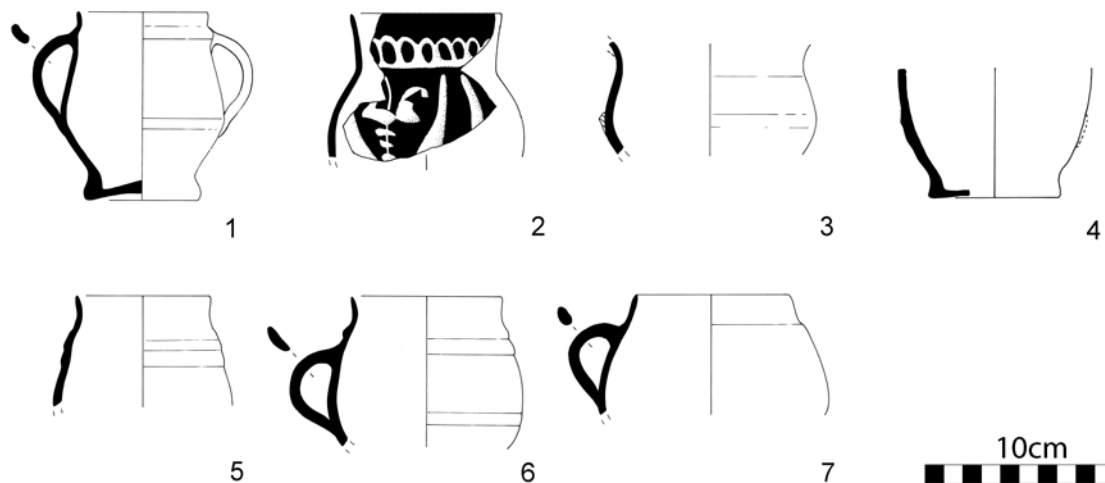


Fig. 4.1: Early post-medieval fine wares

close relationship to 'Midlands Purple' ware (Philpott 1989b). The term 'coarse-ware' is based on vessel form rather than just the fabric, and single fine sherds may be indistinguishable from fine-wares. The coarse-wares have generally received little attention (e.g. Moorhouse 1983, 208, n. 27).

In north-west England this ware develops out of the late medieval sandy bodied wares. They are thrown vessels distinguished by an uneven often thin and patchy lead glaze over a red clay fabric, yielding a purple, brown or black glaze colour and often having a gritty surface. Overfiring and/or reduction is frequent.

There is a total of 438 sherds, weighing 15.555 kg (average weight of 35.5 g), representing 55 vessels.

#### *Fabrics (Table 4.2)*

The fabrics are generally well prepared with a little sand, although occasionally the mixing of red and white clays is evident. They range from a hard, smooth, tightly knit oxidised orange or red fabric, with orange-brown internal and external glaze, to a very hard almost vitrified fabric with a smooth high-fired, almost stoneware appearance, reduced to purple or grey in colour with a patchy internal and external, often metallic grey-brown glaze. Occasionally very coarse fabrics are found, with poor mixing of clays, and numerous large inclusions. The very highly fired, almost stoneware, effect of Midlands Purple is less common than in the Midlands (Philpott 1988).

	<b>Description</b>
1a	Oxidised; a fine, compact, high-fired fabric. Orange or red in colour with a patchy internal and external yellow-green, to orange or brown glaze.
1b	Oxidised sandy; similar to above but fired to lower temperature and with abundant quartz inclusions giving the fabric a much sandier appearance than is normal. The glaze is patchy orange-brown to thin purple, especially on the interior.
1c	Oxidised but more highly fired than 1b, reddish purple in colour with darker and often more metallic brown glazes.
1d	Softer oxidised.
2	Reduced, high-fired; a fine, compact, very high-fired, hard fabric. Generally purple in colour but with some reduction to grey. Glazed internally and externally often to a metallic brown colour and many vessels seem to mimic metal vessels. Also known as Vitrified Earthenware (Slowikowski 1992, 29, Type 10), as very fine-grained, compact fabric with small white quartz inclusions fired to a near-stoneware consistency (Moorhouse 1983, 93, Type 49w) and falls within the same tradition as 'Midland Purple' wares, described as very hard, coarse, sandy with large white inclusions, invariably totally reduced (Ford 1995, 35; Moorhouse 1983, 92, type 42t) 'Midlands Purple'.
3a	High-fired reduced fabric with patchy dark glaze.
3b	Oxidised variant of above.
3c	Oxidised variant with internal, even, metallic glaze.

Table 4.2: Early post-medieval coarse ware fabrics

#### *Glazes*

The glazes are clear, with the final colour dependent on the colour of the body, the amount of iron within the clay, and on the firing temperature and thickness of glaze. Glaze colours vary from brown or dark brown, on the lower fired pieces, to purple and black and often appear quite metallic, when overfired or reduced. The glazes are generally often thin and patchy, splashed or brushed on, with little care.

#### *Dating*

The fabrics are characteristic of the 15th to 16th centuries, largely disappearing in the 17th century and were completely replaced by the turn of the 18th century (following Philpott 1989b).

#### *Forms*

The lack of complete profiles for vessels of this period makes it difficult to describe the form, and further work on other assemblages is required to define the local form series. Where possible the forms have been described following the Medieval Pottery Research Group's *Guide to the Classification of Medieval Forms* to provide some consistency in the descriptions with other reports, whilst at the same time recognising that the forms change during this period (MPRG 1998).

There is a very limited number of forms present, reflecting the nature and use of the pottery itself as kitchen or dairy wares. They are relatively large and crude with thick walls, with functional rather than decorative handles. These two basic forms follow the medieval tradition, jars and jugs, with a number of variations in shape and detail within the two forms.

Jugs are closed forms, which have a constricted neck and which are usually taller than they are wide (MPRG 1998, section 3). Due to the fragmentary nature of the Lea Green assemblage only two rim sherds can be certainly identified as jugs. However, more complete examples of profiles may show that some of the vessels that have been described here as jars may also fall into the category of jugs (Fig. 4.2.8-9).

Jars are differentiated from jugs in the ratio of height to maximum width, together with a short and usually constricted neck (MPRG 1998, section 4). They are functionally the most versatile of all forms and the addition of handles, and or feet, extends the range of uses even further. Although often used for cooking, jars represent a simple utilitarian form, which might have had a number of different uses throughout the life of the vessel. (Fig. 4.2.11-26; Fig. 4.3.27-42).

Other forms in the assemblage include bunghole jars, small flared bowls with squared rims and a colander or sieve.

Whilst no actual bungholes survive in the assemblage

at Lea Green, the form of three vessels suggests that they are bunghole jars. The bunghole jar, with a pierced hole just above the base, was a form introduced during the 15th century and used to hold liquids, often for brewing. The height of the bunghole allowed the waste/yeast to collect in the base (Barton 1992, 254; cited in Cumberpatch 2003, 6) (Figs 4.4.43-44 and 46).

#### **Catalogue of the early post-medieval coarse-wares** (Figures 4.2-4.4)

8. Rounded or shouldered jug, SF198 context 154.
9. SF194 context 154, as catalogue 8.
10. Narrow jar, with a slight constriction at the neck and a rounded thickened rim, SF201, context 154/SF872, context 237. The vessel has a repeated incised 'wavy' line decoration.
11. SF190, context 110/SF762, context 77 as catalogue 11.
12. Narrow, in-turned, handled jar with a squared rim SF1383, context 200.
13. Narrow jar, with a slight constriction at the neck and a grooved thickened rim, forming a slight projection; SF1424, context 221.
14. SF488, context 269.
15. SF72, unstratified variation on catalogue 14.
16. SF1527, context 389, as catalogue 14.
17. SF1092, context 258, a variation on catalogue 14, a more rounded jug with thicker projection.
18. Rims SF955/SF956, context 308 and base SF142/SF806 context 77, as catalogue 14.
19. SF1156, unstratified, as catalogue 20.
20. Illustrated body sherd SF1257 context 310, with a repeated pattern of combed wavy lines.
21. Narrow, in-turned, handled jar with right-angled rim; SF743, context 77/SF1095, context 258/SF1496, context 324 /SF174.
22. SF200/SF202/SF526, context 154/ SF1132, context 258 variation on catalogue 20 with a rounded triangular rim.
23. SF1087, context 316, variation on catalogue 20 with a rounded rim. Only the scar of the handle survives at the rim.
24. SF553, context 258, as catalogue 24, with a combed incised decoration in a wave pattern with a stamped 'wheel' motif.
25. Small jar with internal lid seat and a glossy even glaze SF210, context 110.
26. In-turned jar with an internal lid seated rim SF199, context 154.
27. SF953 context 308/SF1093, context 258, a similar form to catalogue 26 with horizontal loop-handles.
28. SF1204, context 328.
29. A lid seated jar with two horizontal strap-handles (shown in profile) SF204, context 165, as catalogue 26.
30. A constricted necked jar with internal lid seating, SF748, context 77. Decoration is limited to simple, repeated, incised wavy lines, apparently drawn as single lines.
31. A lid seated jar with two horizontal strap handles (one illustrated in profile one on the front elevation). SF195, context 154, as catalogue 26.
32. Deep internal lid seat jar, SF196, context 154.
33. A jar with an in-turned, thickened, rim and two vertical strap-handles, SF1178 context 237. Decoration is limited to simple, repeated, incised wavy lines, apparently drawn as single lines. The relative lack of coarse inclusions compared to vessel SF1197 suggests a different use as a

storage jar.

34. Upright open jar with right-angled, squared rim SF244, context 110; SF1099, context 258/SF1525, context 389.
35. Upright open jar with right-angled, squared rim; SF189, context 110/SF207, unstratified.
36. SF1219, context 324, has the same rim form as catalogue 35 and two horizontal strap handles (one illustrated in profile one on the front elevation).
37. SF1525, context 389, a slight variation on catalogue 35 with a more globular body. The fabric, glaze and form of this vessel and catalogue 38 would appear to be deliberately imitating a metal cooking pot.
38. SF1197, context 237/SF2184, context 313/ SF2185, context 108, as catalogue 37 but with a more upright form. The fabric occasionally has fairly large white inclusions (up to 5 mm).
39. Globular jar with flat rim of triangular section; SF1398, context 339.
40. SF206, context 154, as catalogue 35, with incised combed decoration.
41. SF245, context 110/SF2120, context 275, as catalogue 35.
42. As catalogue 35, the only complete profile is in vessel SF97, context 79/SF812, context 77/SF818, context 110 in a softer oxidised orange fabric.

#### **Other Forms**

43. SF246, context 110/SF742, context 77. Rim sherd from a bunghole jar, see catalogue 46.
44. SF1727, context 275. Rim sherd from a bunghole jar, see catalogue 46.
45. A shallow bowl with holes, suggesting a colander or sieve. The form is represented by a single vessel; SF269, context 120/SF1704, context 275.
46. Bunghole jar, this vessel is made up from many fragmentary sherds recovered from five separate contexts. It was possible to identify enough joining sherds to project the majority of the profile, although, the rim does not physically join the body and base, SF215, context 154/ SF214, context 108/SF216, context 108/SF231, context 119/SF1195, context 237/SF1463, unstratified/SF1754, 167.
47. Small flared bowl with a squared rim SF792, context 77/ SF807, context 77/SF1784, context 55; SF1739, context 119.
48. Small flared bowl with a squared rim, SF511, context 258/ SF2178, context 258/SF1649 context 308, as catalogue 47.
49. Flared bowl with a squared rim (pancheons) with an all over metallic brown glaze; SF1319, context 154, as catalogue 47. Similar in form to later 17th-century vessels (e.g. SF446 Fig 4.10.114), however the glaze and fabric suggest an earlier date.

#### **Contexts producing early post-medieval pottery**

Whilst examining the early post-medieval pottery data it was possible to link a number of contexts by physical cross-context pottery joins, independent of an analysis of the archaeological stratigraphy. From this analysis it became apparent that much of the early post-medieval pottery was recovered from two distinct areas of the site.

#### **Area 1: Contexts associated with soil deposits (154 and 237)**

Contexts 154/258 were initial cleaning deposits, mixed with topsoil finds, which were cut by a series of field

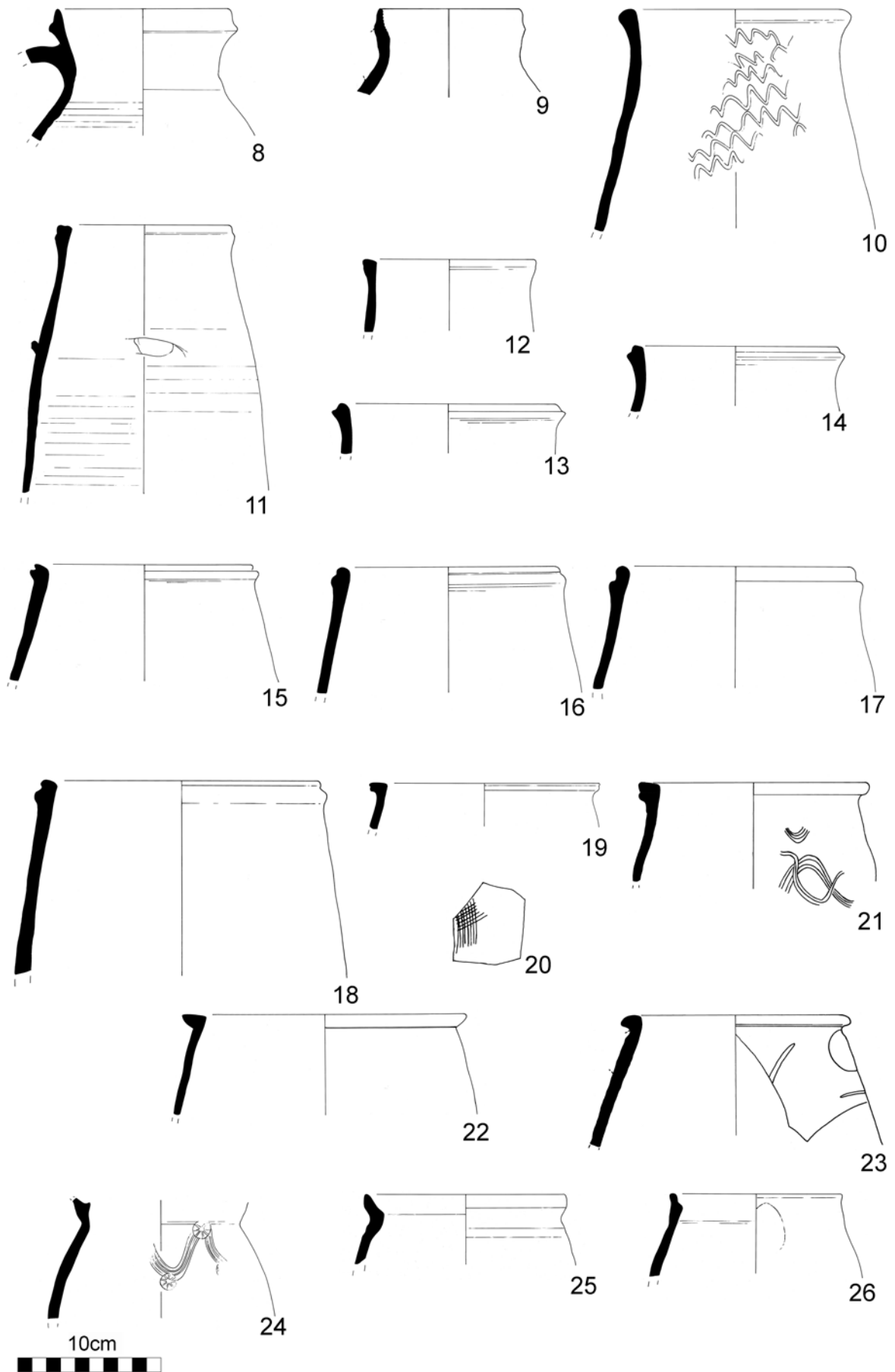


Fig. 4.2: Early post-medieval coarse wares, 8-26

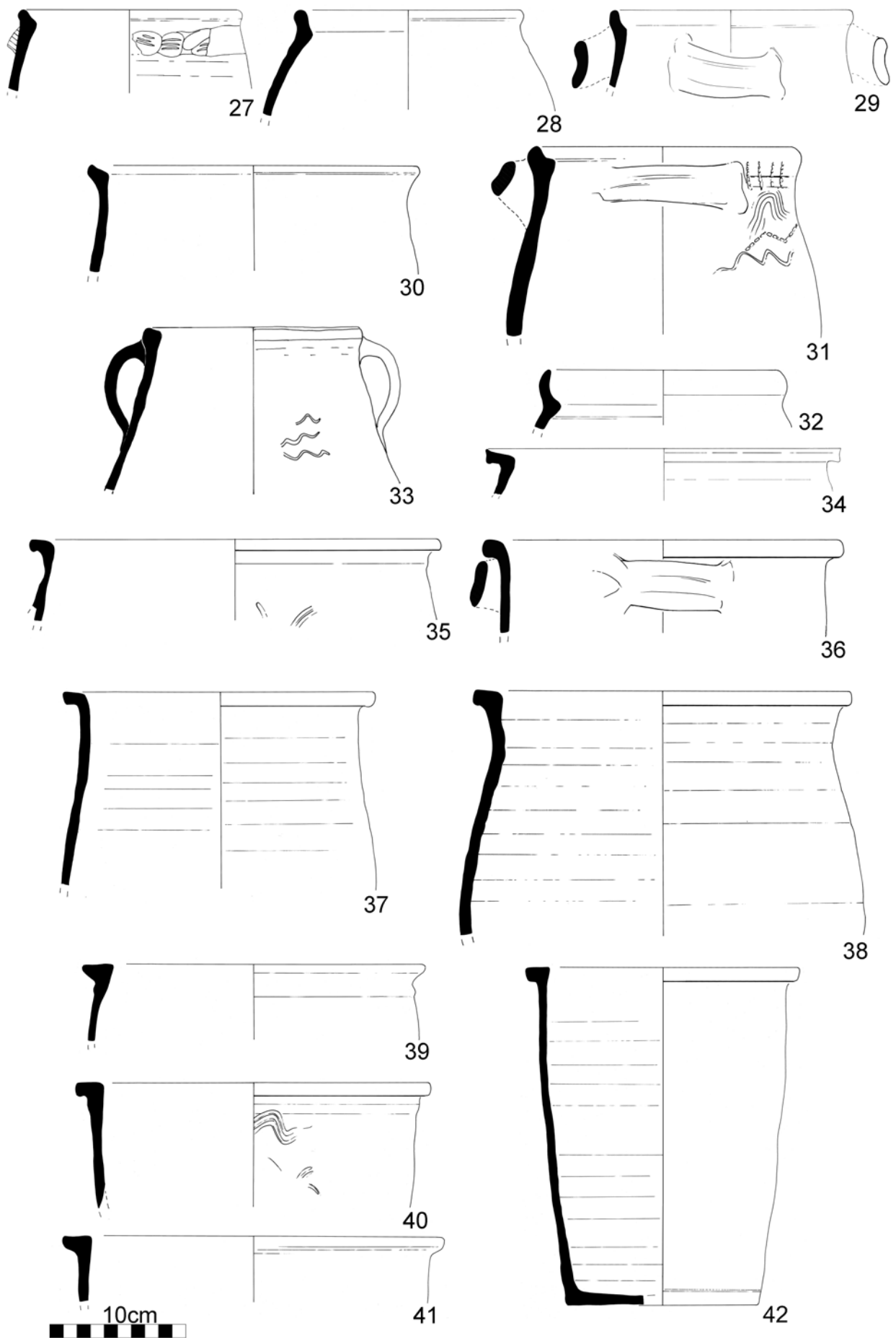


Fig. 4.3: Early post-medieval coarse-ware jars, 27-42

drains and features associated with the 'outhouse'. Context 237 was a deposit, below 154, identified as material slumped into the top of ditch 238. These deposits appeared to fill a relatively shallow depression in the natural subsoil, which sealed a short length of ditch (238 = 166) and a series of pits (possibly associated with industrial activities such as leather tanning). The group includes contexts 119, 154=258, 177, 227, 237=108, 275 (= 51, 267, 354), 308, 316 and 389.

Over half of all the early post-medieval pottery recovered from the site came from these contexts. The stratigraphy was highly mixed and the area was not investigated until the last days of the excavation, which prevented any in-depth recording and understanding of the relationships between contexts in this area.

The majority of the finds date to the 16th century although the pottery styles may have continued in use into the 17th century, which is more closely contemporary with two near-complete vessels of mid-17th-century date, one a Border Ware mug, the second a yellow ware cup, recovered in the same area. However, it is possible that in the rapid excavation of the area subtle differences in the deposit were missed and that the complete cups may have come from a discrete area within the deposit. This is supported by that fact that, apart from one near-complete lid-seated cup, largely recovered from the top of the ditch 238, the majority of the early wares are much more fragmentary than the two 17th-century vessels.

There are a total of 310 sherds (weight 10345.1 g) of early post-medieval pottery from these contexts. The majority of these sherds, 204, weighing 6630.7 g, were recovered from only five contexts; 154, 258 (finds from the cleaning of the surface above 237 to the east and south of the outhouse), 237, 108 and a single fairly large sherd (weight 88.7 g) from context 227, which is described as being part of 237. Apart from a small number of intrusive sherds of modern pottery, the finds from 258 are generally quite early, dating to the 18th century and earlier. Ten sherds of early post-medieval pottery, weight 487.4 g, were also recovered from context 177, one of a number of drains, which cut through 237 and are likely to be closely associated with that deposit.

Fifteen sherds, weighing 519.3 g, were recovered from context 316 which was the upper fill of ditch 238, below 237 and above context 261. All finds from this context fall into a date range from the 16th to the mid-17th centuries.

A further 46 sherds were recovered from a buried soil horizon 275/51/267 (weight 1258.7g). The descriptions of the contexts are uncertain but suggest that the buried soil horizon is associated with the outhouse and the area immediately to the east, which would appear to parallel

contexts 154 and 237, with which there are a number of cross-context joins.

Two inter-cutting pits closely associated with both the soil deposits described above, and ditch 238/166/372, produced a total of 30 early post-medieval pottery sherds. 17 sherds, weight 475.7 g, were recovered from context 308 a fill of pit 309, with a further 13 sherds, weighing 804.5 g, recovered from 389, a fill of an inter-cutting pit 382. The only other finds recovered from this context are organic, including waste leather, parts of a leather shoe, bone, horn cores and antler. The pottery and the shoe suggest a mid to late 16th-century date for the context. Context 389 has cross-context joins with contexts 316, the upper fill of the ditch (238), and context 258.

The only pottery recovered from another related pit fill, context 381, is medieval in date. This pottery appears to be residual as the stratigraphy and other finds, including horn cores, suggest that this pit is related to and contemporary with pits 309 and 382, of 16th- or 17th-century date.

Context 119 was a cleaning layer overlying a cobbled surface to the east of the house and bomb crater. There were a total of five sherds of early post-medieval pottery, weight 168.8 g, recovered from this context. This includes one body sherd, weighing 13.3 g, which physically joins a vessel which was predominantly recovered from the main group of early post-medieval pottery. Whilst there is a single cross-context join the context is actually in a different part of the excavation from this main concentration of pottery.

Whilst recording these data it became apparent that a number of other contexts, which were not directly associated by cross-context joins could also be added to this group because they were deposits associated with these contexts or because they were fills of associated features. This includes 16 sherds of early post-medieval pottery, weight 517.6 g, recovered from context 324, a garden soil deposit to the west of and pre-dating the construction of the 'outhouse'. This context is likely to have slumped into the top of the north-south arm of ditch 238=372/166, and is also recorded as overlying the upper fill 308 of pit 309. There are possible cross-context joins between this context and other contexts in this group but there are stronger links with pottery from ditch 56. Although this is likely to be with later intrusive finds.

A further two sherds, weighing 52.7 g were recovered from context 261, a fill of ditch 238, and one sherd from context 167, weight 83.4 g, and one from 369, weight 44.5 g, the fills of ditch 166 (the north-south arm of ditch 238).

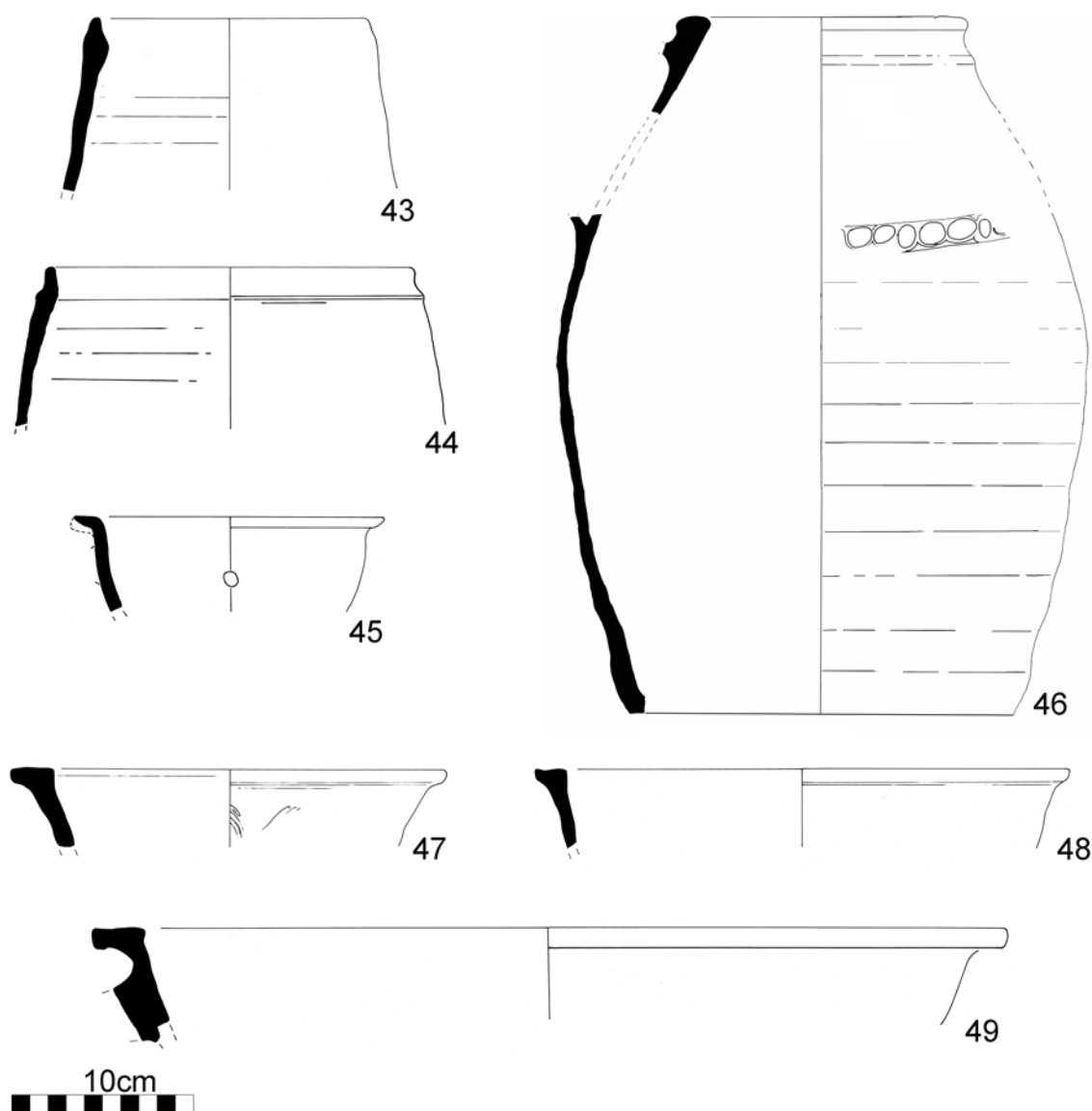


Fig. 4.4: Early post-medieval coarse-wares, 43-49

*Interpretation*

The ditch (238, 166, with a terminus recorded as 372) and associated pits (309 and 382), under context 154/237, appear to represent the remains of an early phase of occupation sealed by the late sixteenth or at the latest by the mid-17th century. The overlying deposit has lain relatively undisturbed since the 17th century, despite activities associated with the construction of the outside toilet block and insertion of a number of field drains.

**Area 2: Contexts associated with ditch (56)**

This group consists of pottery from contexts associated with the ditch, including contexts 55, 77, 79, 95, 110, and 264, and also cross-context joins to contexts 88, 120, 155, 165, 269, and 324. Almost a third of all the early post-medieval pottery recovered from the site came from these contexts.

The pottery recovered from these contexts falls into two distinct datable subgroups. The first consists of 16th- to

17th-century fine and coarse earthenwares. This material is fragmentary, with no complete profiles, but forms the second largest group of pottery of this date from the site.

The second subgroup consists of large pieces of unabraded late 17th- or early 18th-century pottery in good condition with numerous cross-joins, forming a number of near-complete vessels. The condition of the material indicates that they have lain undisturbed since burial and represent a contemporary pottery group, probably from a kitchen or dairy.

*Interpretation*

The stratigraphic evidence suggests that the ditch had been cleaned out during use and backfilled very quickly, at the time of the disposal of the near-complete vessels. The fragmentary condition of the earlier pottery suggests that it was present in some quantity either in soil deposits from another part of the site, that cannot now be identified, or possibly from deposits within the house, which were used to backfill the ditch alongside

the complete vessels. The composition of the pottery assemblage and the backfilling of the ditch appear to indicate a potential re-development of both house and garden during the early 18th century, possibly related to a change of tenancy.

### **Other contexts containing early post-medieval pottery**

Of the other contexts in which early post-medieval earthenwares were recovered many appear to have links with the two groups above. Context 230, the west wall of the outhouse, has a large early post-medieval fine-ware base sherd, amongst many late finds. Contexts 88 and 310 are also associated with the outhouse, with context 273 being a stone lined drain between the outhouse and the farm. Context 120 is a cleaning layer in the same area as 154. The early finds in these contexts may represent disturbances of the original soil deposit through which the outhouse was built.

Context 355 is the fill of a ditch, with a similar range of finds to that of ditch 56, which may have been back-filled around the same time. However, there are no cross-context joins between the two groups to support this.

Only one other context, 209, contains early post-medieval fine-ware pottery. Of all the early post-medieval pottery recovered from the site, only six sherds are not associated with the two main areas of pottery concentration.

### **17th- and 18th-century pottery**

There is a total of 7015 sherds of post-medieval pottery, weighing 337,734.6 g, with the majority being 17th or 18th century in date.

The 17th and 18th century saw a period of rapid progression in pottery technology and the development of a range of sophisticated new types of pottery, forms and decorative techniques. Many different types of pottery were produced during this period which were aimed at different levels of the market or which performed different functions. The locally produced earthenwares were finer and better produced than the earlier pottery.

#### **Dark-glazed wares**

Dark-glazed wares are the most common type of pottery found in the post-medieval period and form part of a long-lasting continuum of wares, developing from the forms and techniques of the early post-medieval dark-glazed wares and continuing in use into the 20th century.

The term 'dark-glazed ware' is adopted here to describe the fine and coarse earthenwares of the 17th to 20th

century with thick dark-coloured lead-glazes, and is used in preference to 'blackware' (Philpott 1985b, 85; Barker 1986b, 58-75) or 'Dark Ware' (Brown 1988 unpublished).

The glaze colour is very variable in south-west Lancashire, ranging from dark brown to black, the precise glaze colour depending on the colour of the fabric, the presence of slip, the amount of colorant (iron) added to the glaze, and the firing conditions.

The quality of the glaze is also determined by its thickness; a thick layer equates to a smooth, glossy even finish, whereas a thin coating allows for inclusions present in the fabric to create a gritty appearance. Glazing on the finer wares is generally more even and the unglazed areas of the coarse-wares are often splashed and the effect can be patchy and careless (Philpott 1985a, 87).

Some chronological developments are evident in the fabric and the colour and finish of the glaze. In the 17th century the glaze colour appears to have been determined by the underlying body and the degree of oxidisation or reduction. Overfired and reduced fabrics have a purple or purplish black; overfiring giving a dull dark brown glaze; the less highly fired, oxidised sherds with a lighter fabric colour have lighter glaze colours (Philpott 1985a, 87; 1989a, 28). By the early 18th century a black glossy finish was achieved more regularly as seen in the South Castle Street, Liverpool excavations, possibly as a result of the addition of iron to lead glazes (Philpott 1985a, 87).

During the 18th century these wares were produced in large quantities in Prescot, St Helens and Liverpool, in industrialised units and this is reflected in the increasing quality and control of the production process. Some time in the mid-18th century a distinctive even, glossy black glaze often with a metallic finish, was introduced. Whilst the clays used to produce fine-wares were heavily refined, most of the 18th-century coarse-wares found on excavations become increasingly mixed with grog or laminations of buff firing clay, as the pots become larger. By the 19th century the coarse-ware fabrics become much finer, and well mixed, probably due to the increased use of milling machinery to mix the clays, with well applied, glossy, even glazes. However, the forms changed little throughout the post-medieval period.

The clays used were derived from the local boulder and coal measures clay and the differences within the vessel fabrics would seem to represent differences in the preparation of the clays and not of the source (as seen in the analysis of the fabrics from Rainford: Philpott 1989a, 28).

**17th-century dark-glazed wares**

The early fine, dark-glazed wares have many features in common with early post-medieval fine-wares, reflecting more competent attempts at potting, with a better finish, and covered with good quality glazes (Barker 1986b, 58). Straight-sided vessels, either cylindrical or sub-conical, replace the rounded and flaring profiles of the earlier cups, while new round-bodied forms of single and two-handled cups appear. Brears (1971a, 37) suggests that the dark-glazed wares resulted from a merging of early post-medieval fine-ware forms and European stonewares, although it is also likely to reflect some inspiration from the contemporary, and more expensive, metal forms.

*Dating*

Early dark-glazed wares are known to have been in production in certain parts of the country by the early 1600s but achieved their greatest popularity between 1650 and 1720 (Barker 1986b, 58-59). Around the end

of this period there appears to be a change in the quality of both fabric and glaze of the dark-glazed wares, whilst generally maintaining the same forms and shapes. The closed group of near-complete vessels from the ditch (56) at Lea Green, which is associated with a group of clay tobacco pipes, closely dated to 1690-1720 (Higgins, this volume, pp. 80-87), demonstrates the development of these new fabrics by the turn of the 18th century.

*Fabrics*

The fabrics are hard, high-fired, often overfired and reduced, usually purple in colour. The glaze is dark, glossy black but where thin it has a purple colour.

*Forms*

During the 17th century a new range of forms began to appear, replacing many of the early post-medieval forms. Amongst them was a range of cups of various shapes and sizes: tall double-handled with faceted stems and splayed feet, straight-sided single-handled, flaring often multi-handled cups, and tall rounded cups.

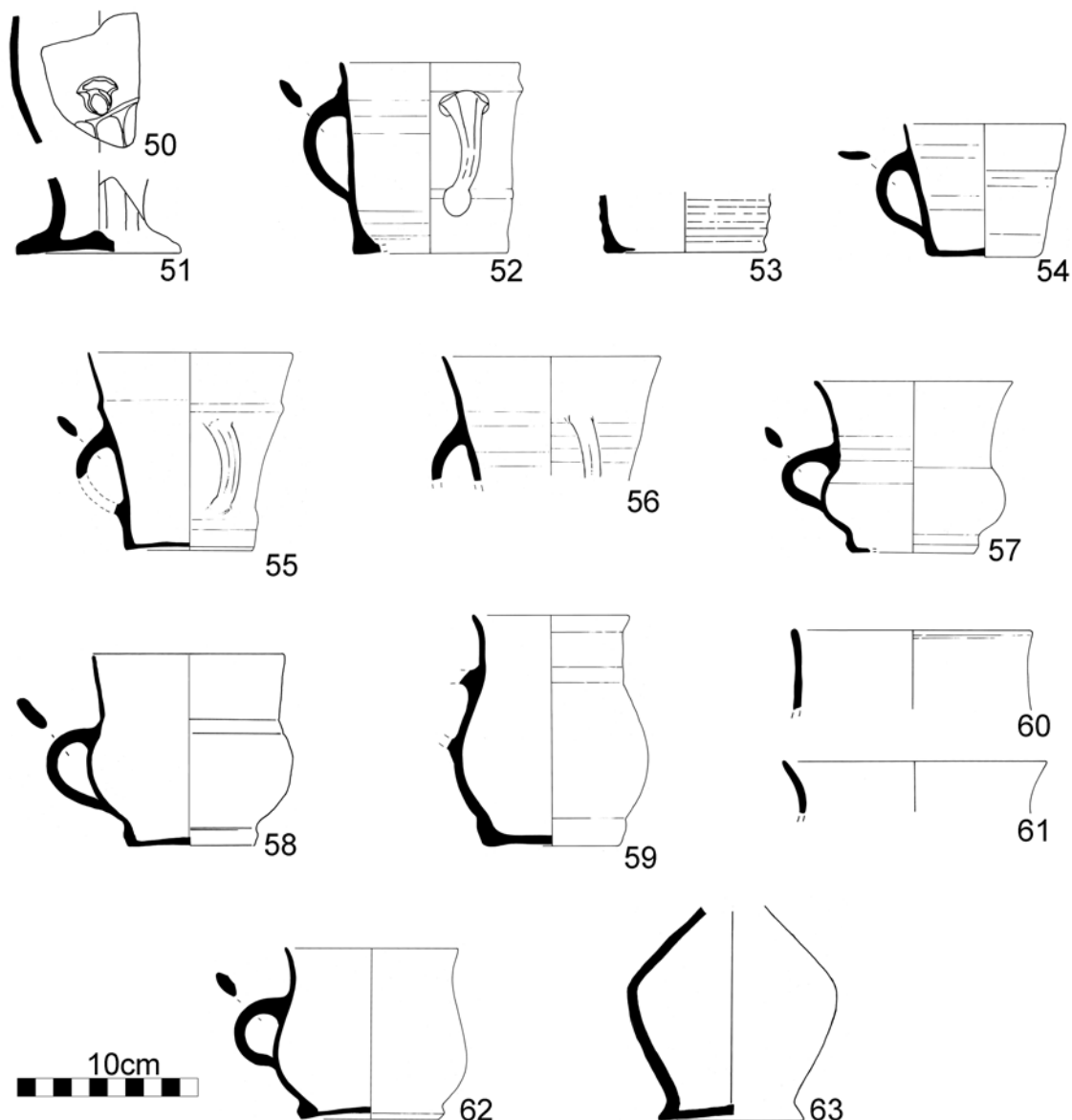


Fig. 4.5: 17th-century dark-glazed fine-ware, 50-63

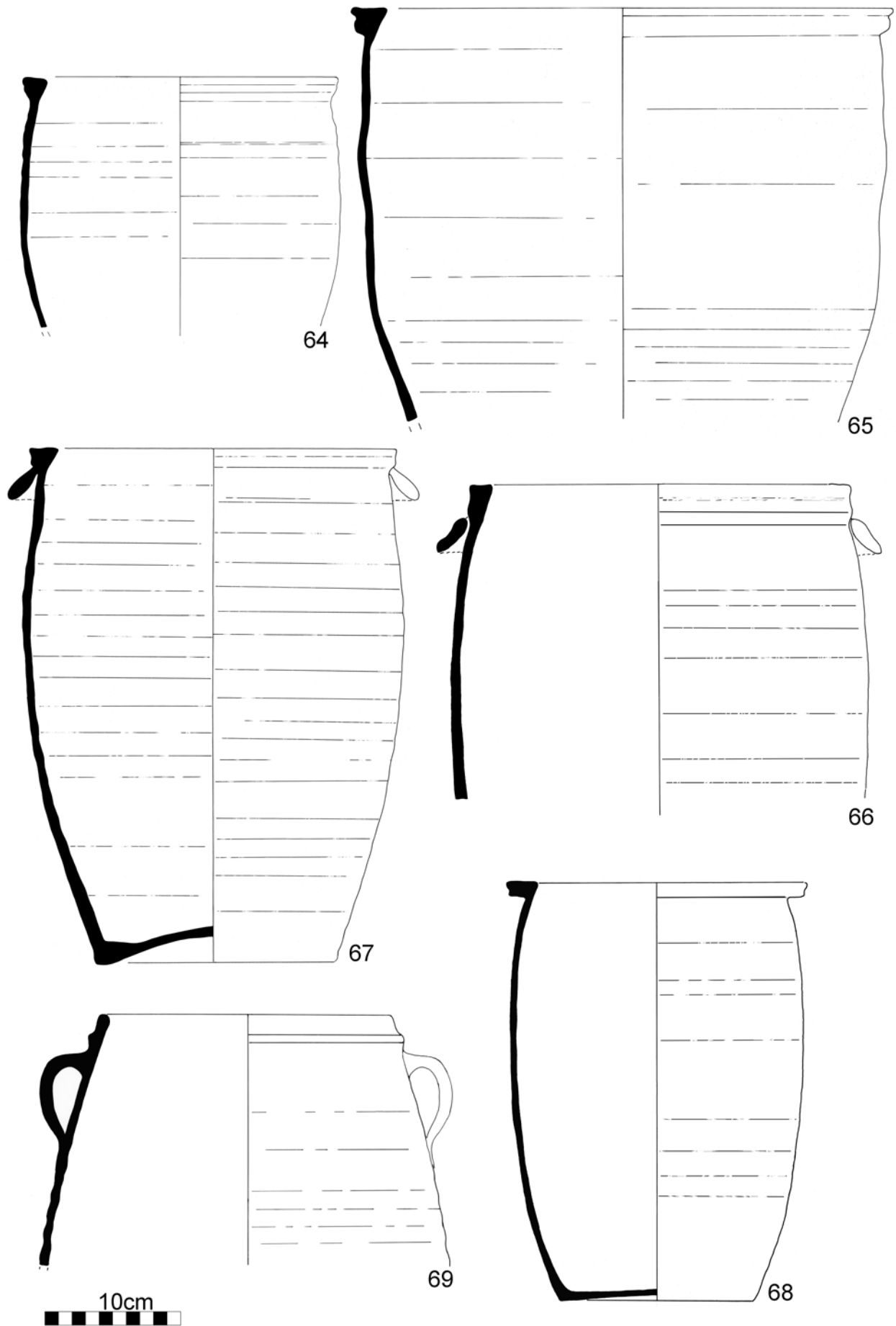


Fig. 4.6: Dark-glazed coarse-ware, 64-69

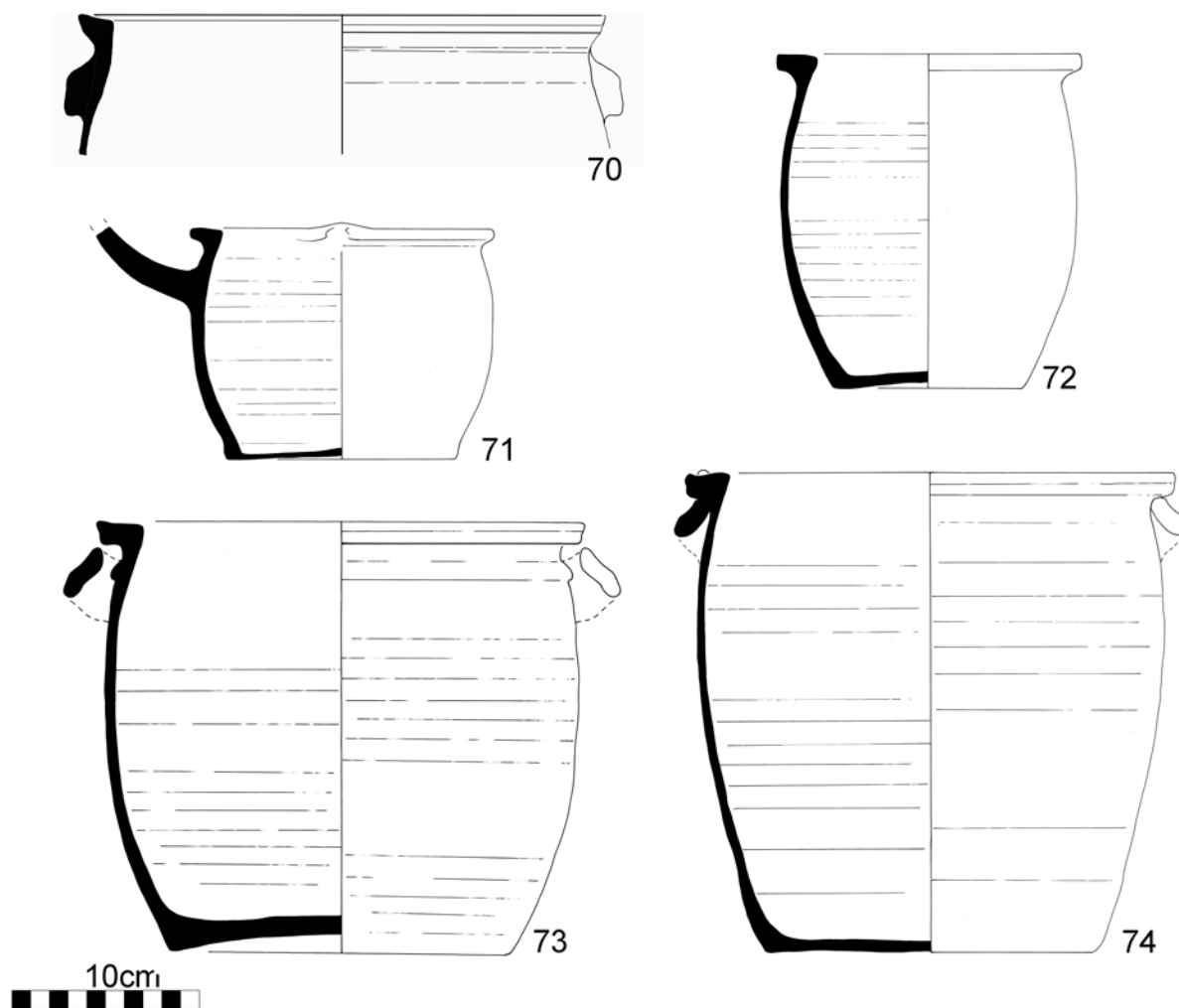


Fig. 4.7: Dark-glazed coarse-ware, 70-74

Until recently it had been presumed that the faceted base (see Fig. 4.5.50, a body sherd showing part of the faceted stem and base; Fig. 4.5.51) was a local form relating to south-west Lancashire, with examples found outside the area in the Isle of Man and Dublin (Philpott 1989a, 27; Davey and Johnson 1996, fig. 43, 61-2). However, the recent discovery of a waster at Burslem, Stoke-on-Trent, suggests that production of this form was not solely confined to the region (David Barker pers. comm.) and also hints at the greater exchange of ideas between the two areas from the 17th century.

Multi-handled flaring cups are recorded from South Castle Street, Liverpool (Philpott 1985a, 90, fig. 171), Urmston Hall, Manchester (Stanley 1989, 38, fig. 6a), and at Beeston Castle in the late 17th-century deposits (Noake 1993, fig. 133, 48).

The globular cup form with straight flaring rim appears at Potovens, in Yorkshire, in early 18th-century deposits (Brears 1971b, 28; fig. 13.5) and in mottled ware at Stafford (Barker and Holland 1986, fig. 2 8; 1715-20; ref. to vessel from Sneyd Green, late 17th/early 18th-century).

#### Catalogue of the 17th-century dark-glazed fine-ware (Figure 4.5, 50-63)

50. Two joining body sherds from a tall double-handled lid seated cup, with a tapering, faceted stem and wide pedestal base. SF461 and SF1176, context 237.
51. A base, SF1591, context 230, as catalogue 50.
52. Single-handled, near straight-sided cylindrical mug, similar to a vessel from Civil War deposits from Beeston Castle (Noake 1993, fig. 133, 44). Similar forms appear at Wrenthorpe in 17th-century blackwares (Moorhouse and Slowikowski 1992, 121, fig. 61.200-201). SF520, context 316/ SF1174, context 237.
53. SF751, context 77, as catalogue 52.
54. Small, fine, single-handled cup, similar to a vessel from late 17th-century deposits at Beeston Castle (Noake 1993, fig. 140, 163) SF218, context 108 and SF219, context 154.
55. Multi-handled flared cup, a form that is fairly common across South Lancashire and Cheshire. SF222/ SF275. context 154/ SF513, context 316/SF1725, context 237
56. SF1711/SF1714/SF1723, context 237, as catalogue 55.
57. Single-handled globular necked cup with flaring rim; SF793, context 77.
58. Globular cup with straight flaring rim, SF791 context 77. A similar more rounded form appears at Rainford (Davey and Morgan 1978, 76 fig 2) and at Stafford in mottled ware (Barker and Holland 1986 fig. 2 8; 1715-20 with reference

- to a vessel from Sneyd Green, dated to the late 17th or early 18th century.
59. An 18th-century, tall, rounded, necked cup with upright upper body and flaring rim in a hard, fine, smooth fabric and very even dark glaze, SF777, context 77. The glaze and fabric suggests a later 18th-century date for this vessel, although the form is similar to a vessel from Civil War deposits at Beeston Castle (Noake 1993, fig. 132 36).
  60. Fragmentary rim of a cup. SF225, context 61.
  61. Fragmentary rim of a cup. SF1074, context 355.
  62. Rounded single-handled cup SF780, context 77. The form developed during the late 17th century.
  63. Bottles; amongst a number of small body sherds from bottles there is one near-complete profile; a shouldered hollow ware with a constricted neck; SF157, context 79. The vessel has an uneven external glaze, varying in colour from purple to black. The interior is unglazed. The evidence from other body sherds suggests that the vessel was originally glazed over the rim. Whilst only fragments of vessels appear in the assemblage, more complete examples occur at, for example, Prescott (Philpott 1989a, 30, fig. 7.4.9) and Beeston Castle (Noake 1993, fig. 133.62).

### Local 18th-century dark-glazed wares

A total of 3803 sherds of 18th-century dark-glazed ware were recovered from the site. Of these 3544 sherds weighing 200.06 kg (average weight over 56 g) were coarse, larger vessels, such as flared bowls with squared rims and storage vessels, while the rest were finer tablewares. Over 80% of the sherds were recovered from only twelve contexts as well as unstratified deposits, while 65% came from only seven contexts (61, 69, 120, 155, 165, 209 and 301), each containing over 100 or more sherds, while context 69 was a large dump of mid-19th-century pottery and kiln waste with over 200 unstratified sherds.

#### *Fabrics*

The fine-wares have a hard smooth, tightly knit fabric, usually brick red in colour, but can be overfired, purple-brown. They are glazed internally and externally to a glossy deep black or dark brown colour. South-west Lancashire had abundant supplies of the iron-rich Coal Measures clay, which gave the ware its distinctive colour. A number of large potteries existed at Prescott and in the St Helens area, including Sutton (McNeil 1989; Barker and Harris 1993). The 18th-century fabrics in the coarse-wares tend to be streaked through due to incomplete mixing of red and white clays. Production continued well into the 20th century, with more evenly fired and oxidised fabrics and even, well controlled glaze coverage.

The coarse dark-glazed wares have a coarser fabric with frequent, often quite large, inclusions. The colour can vary from brick red to purple brown with the degree of firing and/or reduction. Surfaces vary from light to dark brown. The glaze is dark brown to black.

The 18th-century coarse fabrics are usually well refined,

and made of both red and white clays forming the classic marbling effect on the fabrics of this period. By the 19th century mechanical mixing allowed for the clays to be totally mixed together and the marbling disappears. Many vessels have a red slip coat. The glazes are well prepared, evenly applied and fired; possibly coloured by the addition of iron.

#### *Forms*

As the 18th century progressed there was a reduction in the number of forms produced in dark-glazed ware as tablewares were increasingly produced in the newer finer stonewares and mottled ware (Philpott 1985a, 87-8). Forms such as the multi-handled cups disappear, replaced by more rounded, single-handled forms (e.g. Fig. 4.5.62, SF780); while others such as chamber pots continued in use. The predominant forms were large jars (often called storage vessels), flared bowls (or pancheons), drinking vessels and smaller jugs and jars.

Large tall jars with heavy squared rims develop from small forms of the 17th century (Fig. 4.6.64-65 and 67) into larger stylised rim forms during the 18th century, often with opposed horizontal strap-handles (Philpott 1985a, 87). Only fragments of vessels were recovered (for example Fig. 4.8.79, 80, 82, 90 and 91). During the 19th century these jars develop into tall flaring vessels with two or more horizontal handles; the rim form becomes thinner and stretched in appearance (Fig. 4.8.92).

The flared bowls with a squared rims (pancheons) are normally glazed internally only (Philpott 1985a, 87) (Fig 4.10.115-119 and Fig. 4.11.120-132). During the late 17th and 18th century the rims became flatter, squarer and more pronounced, removing the need for handles which also meant that they were easier to produce (Philpott 1989a, 27). However, handled vessels continued to be made. One deep, thin-walled 18th-century vessel from Lea Green retains handles (Fig 4.10.119), while analysis of a group of dark-glazed bowls in Manchester shows that handles continue to appear on the larger vessels of this type during the mid-19th century, suggesting a specific function for these forms (White 1983, 65-6, fig. 2000-2002).

Another form, which appears widely at Lea Green, is the barrel-shaped jar (or cauldron) with right-angled squared rims (Fig 4.6.68 and Fig 4.7.72-74). These vessels are often only glazed internally with an even dark-coloured glaze. Soot adhering to the unglazed exterior indicates use over a fire, probably as cooking vessels. The thin walls, alongside the modification of the form to eliminate sharp angles, increased resistance to thermal shock and also conducted heat better, cooking food faster and saving fuel (Rice 1987, 228-30). The two near-complete vessels from context 77 both have two opposing horizontal strap handles and a small pouring lip (Fig. 4.7.73-74). The lip appears to

be placed arbitrarily, one vessel having a lip equally spaced between handles, the second placed to one side. A smaller variation of the barrel-shaped jar is also both unglazed and sooted on the exterior but has no handles (Fig.4.7.72). A similar form, without handles, is glazed both internally and externally (Fig.4.6.68). No evidence of sooting remains on the exterior suggesting that this variation is used more for storage than cooking.

A single example of a pipkin or small pan was recovered with the other 'cooking' vessels from the ditch group SF770 context 77 (Fig. 4.7.71). The vessel has a single upturned skillet handle and an off-centre pouring lip and is made in the same fabric as the barrel-shaped jars.

Another form used for the preparation of food and referred to as a salting-pan, is present on the site (context 324 SF1493, not illustrated). The vessel has been thrown on a wheel as a normal jar with a small narrow rim. The jar is then cut in half and the rounded side of each half is flattened to form the base of a distinct vessel, which is then glazed internally only. Horizontal strap-handles are applied to one of the long sides. 19th-century examples are on display at the Northwich Salt Museum. A single rim sherd from a 'salting pan' was recovered from a site of similar status at Gadbury Fold, Atherton, Greater Manchester, 18 km to the north-east of Lea Green (Speakman unpublished; University of Manchester Archaeological Unit unpublished excavation). The presence of a few of these vessels on both sites suggests that the small-scale salting of ham or bacon in small farms, for the families' own consumption, was a common practice. Comparison of the numbers of 'salting pans' with that from a small excavation in Newton-le-Willows (NML excavations), which produced a minimum of seven individual vessels, mostly from a 17th-century deposit suggests a commercial operation there, preserving larger quantities of meat.

#### **Catalogue of the dark-glazed coarse-ware** (Figures 4.6-4.12).

##### Figure 4.6

64. Large, barrel-shaped storage jars with horizontal strap handles and small, squashed, flat-topped rims often described as storage vessel, SF761, context 77. The rims on these vessels develop into the larger forms of the 18th century. Forms more typical of the 18th century are illustrated; a jar/storage vessel with a longer or vertically stretched rim, SF2226, context 355 (Fig 4.8.90), and SF1143, unstratified (Fig 4.8.91). A 19th-century example is also illustrated (Fig 4.8.92).
65. SF1297, context 328, as catalogue 64.
66. SF727, context 165, as catalogue 64.
67. SF824, context 77, as catalogue 64.
68. Barrel-shaped jar with right-angled squared rims, glazed both internally and externally; SF802, context 77. The form is similar to a number of sooted vessels without exterior glaze (Fig. 4.7.72-74).
69. 17th-century two- (or more) handled jar with constricted

rim and external lid seating. In a high-fired purple fabric and metallic purple glaze. SF1323, context 324/SF1324, context 310.

##### Figure 4.7

70. Rounded jar with constricted rim with slight lid seating similar in form to a metal cauldron, SF1749, context 167/SF1756, context 167.
71. Pipkin or small pan; a small vessel in similar fabric to the barrel-shaped jars, with a single upturned skillet handle and an off-centre pouring lip or spout; SF770, context 77.
72. Small barrel-shaped jar with right-angled squared rims, glazed internally only and with sooted exterior; SF779, context 77.
73. Sooted barrel-shaped jar (or cauldron) with right-angled squared rim, and with two handles, glazed internally only, SF825, context 77, SF2054, context 110.
74. SF797, context 77; as catalogue 73.

##### Figure 4.8

75. Barrel-shaped jar with right-angled squared rim, glazed both internally and externally SF1325, context 328.
76. SF2035, context 77, as catalogue 81.
77. SF1109, unstratified, as catalogue 81.
78. SF859, context 77, as catalogue 81.
79. SF2208, context 77, as catalogue 81.
80. SF2215, unstratified, as catalogue 81.
81. SF1206, context 328, as catalogue 81.
82. 17th-century large, barrel-shaped storage jar with horizontal strap handles and small, squashed, flat-topped rim, often described as a storage vessel, SF2065, context 77. Similar to catalogue 64.
83. SF2058, context 79, as catalogue 81.
84. SF851, context 77, as catalogue 81.
85. SF2228, context 355, as catalogue 81.
86. Jar or storage vessel, SF2216, unstratified.
87. SF2230, context 355, as catalogue 92.
88. SF2052, context 77/SF2053, context 79, as catalogue 92.
89. SF1550, context 334, as catalogue 92.
90. Large tall jar or storage vessel with heavy squared rim SF2226, context 355.
91. SF1143, unstratified, as catalogue 96.
92. 19th-century large tall jar or storage vessel with heavy squared rim, SF2238, context 165.

##### Figure 4.9

93. 17th-century handled jar or jug, with a rounded body narrowing to a rim with an exterior cordon, SF1122, context 258.
94. SF1254, context 310, as catalogue 99.
95. 18th-century upright jar with thickened clubbed rim, SF1998, context 55.
96. Simple upright jar or jug with a simple thickened rim SF799, context 77.
97. SF2089, context 77, as catalogue 102.
98. Two-handled lid seated 17th-century jar, SF815, context 77.
99. Upright open jar with right-angled, squared rim, SF163, unstratified.
100. Rim fragment from an upright jar, SF1505, context 324.
101. Globular jar with an in-turned rim with cordon decoration SF847, context 77.
102. Globular jar with an in-turned rim with cordon decoration, SF291, context 62, similar to catalogue 107.
103. Simple in-turned thickened rim of a jar, SF1320, context 154.

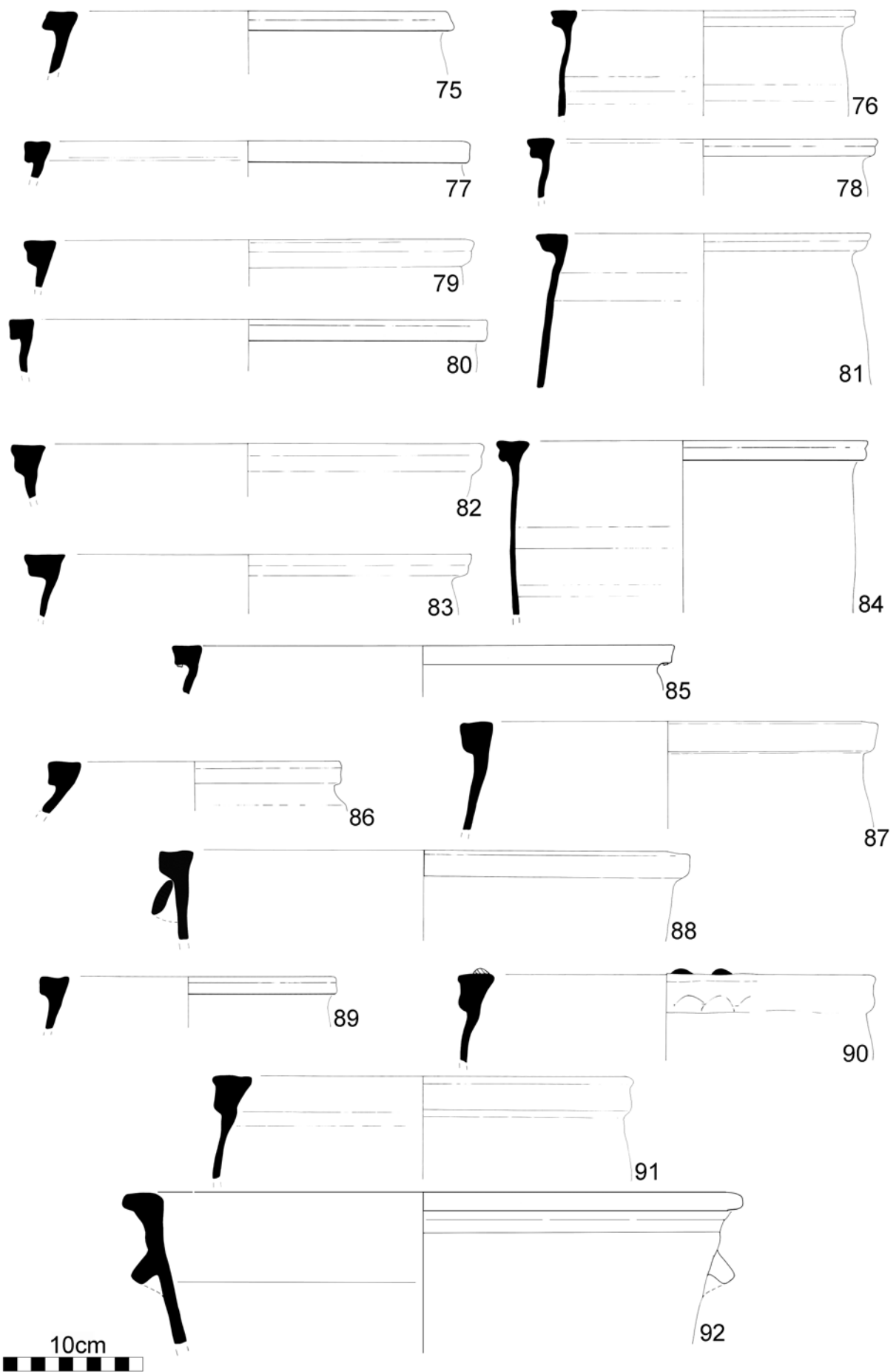


Fig. 4.8: Dark-glazed coarse-ware, 75-92

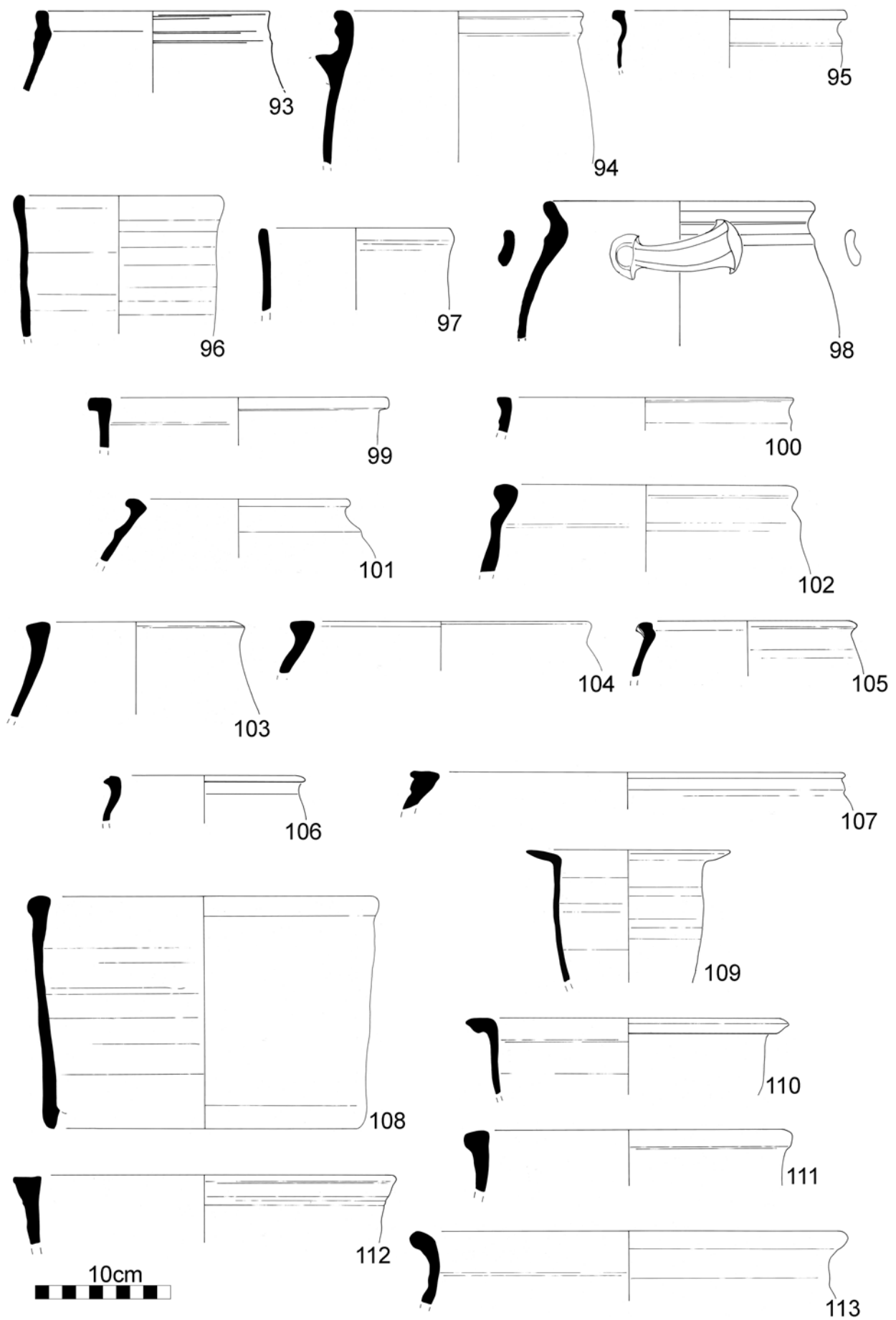


Fig. 4.9: Dark-glazed coarse-ware, 93-113

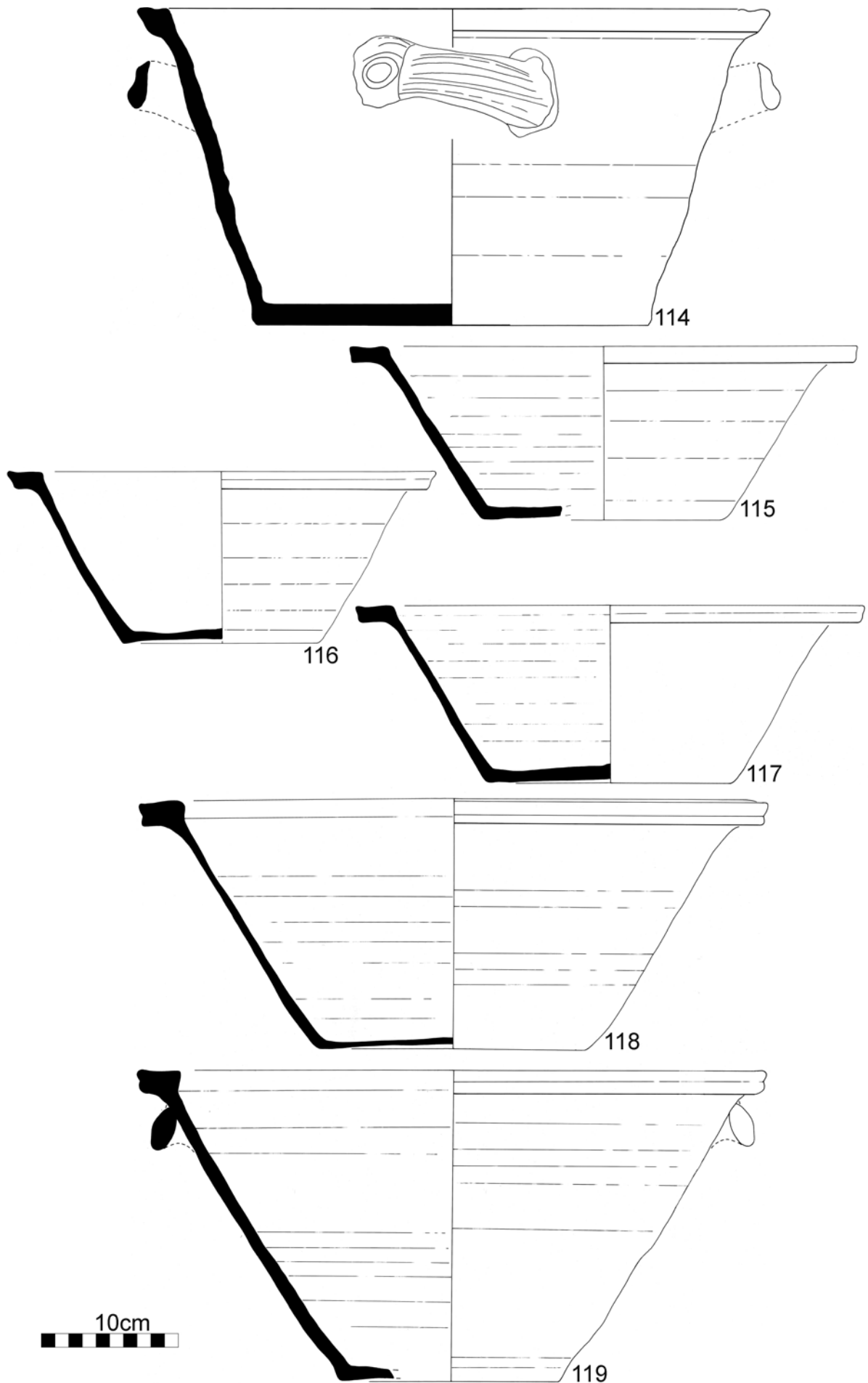


Fig 4.10: Dark-glazed coarse-ware, 114-119

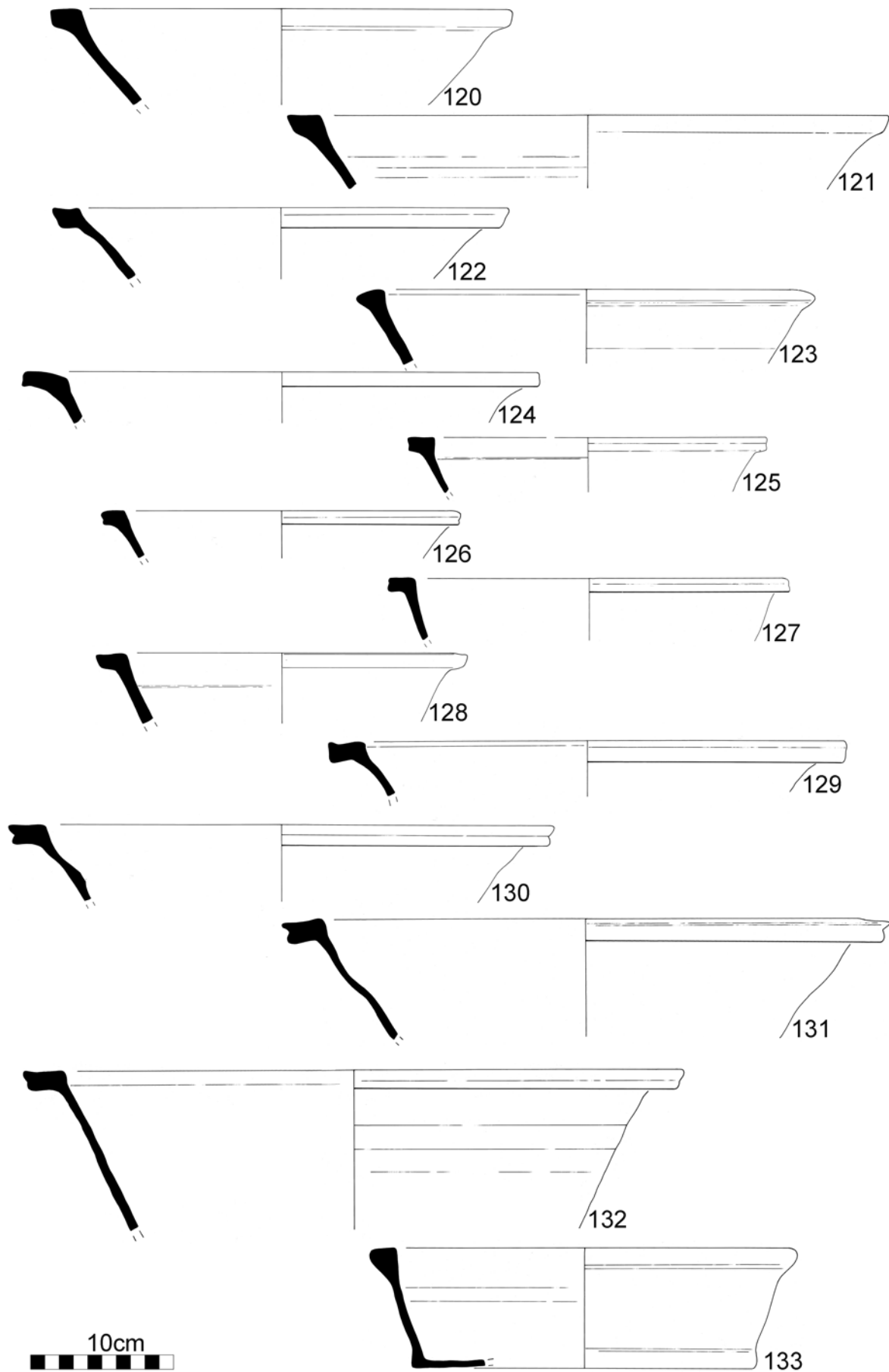


Fig. 4.11: Dark-glazed coarse-ware, 120-133

104. A squat jar with a similar rim to catalogue 109, SF1147, unstratified.  
 105. 17th-century constricted necked jar with pouring lip or spout and an internal lid-seated rim, SF1123, context 258.  
 106. SF1717, context 275, similar to catalogue 111 but with no spout.  
 107. Fragment from a globular jar with squared rim, SF1331, context 154.  
 108. The profile of a squat jar or bowl, SF102, context 79.  
 109. Narrow fine jar with thin right-angled rim, SF773, context 77.  
 110. Jar with a right-angled flat rim, SF1316, context 154.  
 111. Jar with a simple thickened rim, SF2123, unstratified.  
 112. Upright jar with a flat top to a simple thickened rim,

SF2084, context 77.

113. Jar with an out-turning simple thickened rim, SF266, context 165.

Figure 4.10

114. 17th-century flared bowl with a squared rim (or pancheon), with large horizontal strap handles, SF446, context 237. Closely resembles a 17th-century vessel from Rainford (Davey 1991, fig. 5 11). A similar vessel without handles but of similar date occurs in excavations at High Street, Newton-le-Willows (NML Archaeology Site 20).  
 115. Flared bowl with a squared rim (pancheon) SF331, context 110.  
 116. SF769, context 77, as catalogue 121.

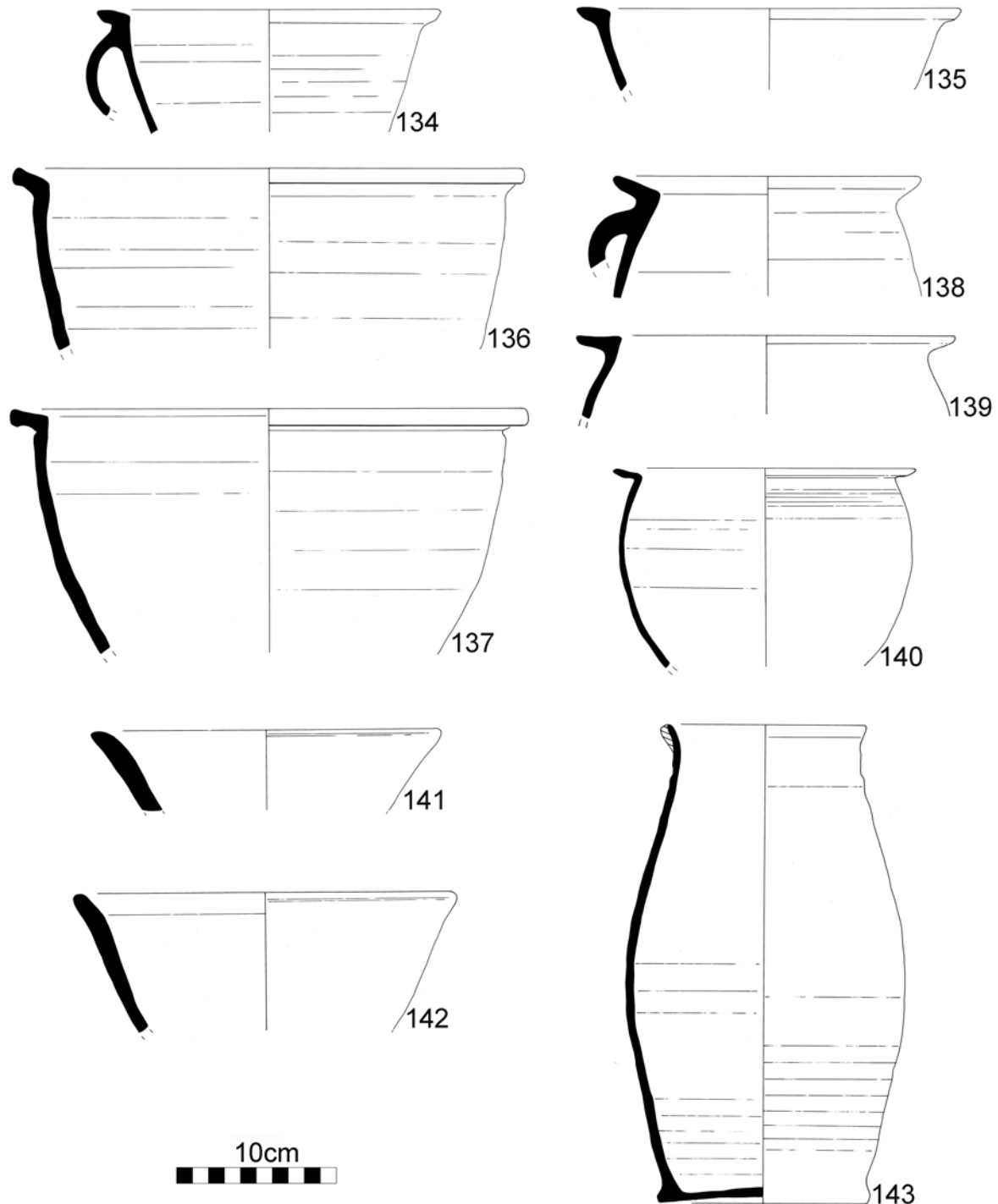


Fig. 4.12: Dark-glazed coarse-ware, 134-143

- 117. SF814, context 77, as catalogue 121.
- 118. SF2059, context 79, as catalogue 121.
- 119. SF2055, context 77, as catalogue 121. An example of a deep, thin-walled 18th-century vessel, which retains the horizontal strap handle as seen on 17th-century vessels.

Figure 4.11

- 120. SF1144, unstratified, as catalogue 121.
- 121. SF1304, context 154, as catalogue 121.
- 122. SF2085, context 77, as catalogue 121.
- 123. SF2195, unstratified, as catalogue 121.
- 124. SF2057, context 79, as catalogue 121.
- 125. SF2196, unstratified, as catalogue 121.
- 126. SF1330, context 154 as catalogue 121.
- 127. SF2194, unstratified, as catalogue 121.
- 128. SF1426, context 178, as catalogue 121.
- 129. SF1351, context 95, as catalogue 121.
- 130. SF2064, context 110, as catalogue 121.
- 131. SF2056, context 77, as catalogue 121.
- 132. SF858, context 77, as catalogue 121.
- 133. Dish with rounded rim SF807, context 77/SF1784, context 55.

Figure 4.12

- 134. Handled bowl, SF1191, context 237. The form appears at Rainford in a self-coloured ware (Davey and Morgan 1978, 76, fig. 3-4). It is also paralleled by a vessel from Civil War deposits at Beeston Castle (Noake 1993, fig. 132, 41) and at Potovens (Brears 1971b, 22, fig. 11, 32).
- 135. Handled bowl, similar to catalogue 140, SF1321, context 154.
- 136. Large rounded bowl with an angled flanged rim SF2211, context 167.
- 137. Large rounded bowl similar to catalogue 142 with a flatter flanged rim, SF1248, context 310. The form is paralleled in a self-coloured fabric at South Castle Street,

- Liverpool (Innes 1985, 110 fig. 289).
- 138. Chamber pot, SF1303, context 227.
- 139. Chamber pot, SF2061, context 110.
- 140. Chamber pot, SF810, context 77.
- 141. Flaring jug rim, SF2214, unstratified.
- 142. Flaring jug rim, SF2234, context 155.
- 143. A near-complete tall narrow 'baluster' jug (see smaller example in Gooder 1984, fig. 11.98) SF819, context 77.

**Post-medieval coarse gritty wares**

Post-medieval 'Coarse Gritty Ware' is defined here as earthenware with abundant obvious, large, coarse angular, inclusions (up to 3 mm), visible on the surface and throughout the fabric, in addition to the naturally occurring fine, rounded sand inclusions within the clay. The vessels are glazed internally only with a patchy dark mottled glaze. Coarse gritty fabrics are present across north-west England and north Wales from the medieval period.

Although the addition of coarse temper to a fabric physically weakens the vessel after only a short time, the inclusions can play an important role in the manufacture and use of the vessel (Shepard 1956, 25; Cumberpatch 1997, 128). Most importantly, the large inclusions help to reduce problems of thermal shock, allowing the vessel to stand up better to the stresses of use, and to allow quicker heat loss (Rice 1987, 228-30).

Locally such fabrics have been recovered from excavations at Rainford, dated to 1640-60 (Davey and Morgan 1978, 77, fig. 5; Coney and King 1982).

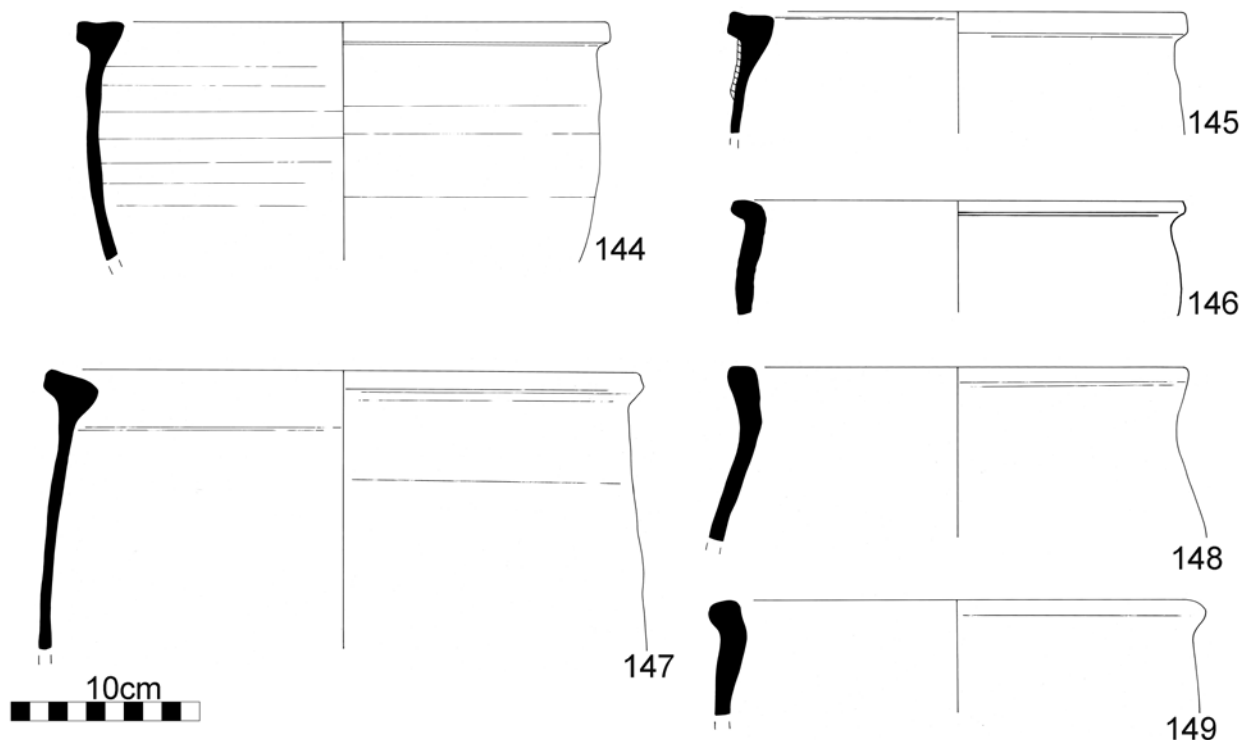


Fig. 4.13: Post-medieval coarse gritty ware, 144-149

A similar coarse fabric was also used for very large cauldrons from the Brookhill site at Buckley, Clwyd, in the mid to late 17th century (Amery and Davey 1979, 76-7, fig. 13). The Brookhill vessels, with clubbed rims and vertical strap-handles, are made in a pale fabric, with an exterior slip and dark internal glaze, although some examples are unglazed and have tripod feet. Examination of the vessels from Rainford showed that, although they are made of pale fabrics with a similar general description as the Lea Green examples, the fabric and form are different.

Similar coarse fabrics, with heavily sooted exteriors, have also been identified at Wrenthorpe, although with green glaze (Moorhouse and Slowikowski 1992, 102, figs 368-83). It is suggested that they were used for either domestic or industrial use.

At Lea Green, a total of 77 sherds of post-medieval coarse gritty wares were recovered from the excavations, weighing 3509.8 g, from eight contexts. Of the 77 sherds, 71 were recovered from contexts 77, 79 and 95, all fills of ditch 56, and from context 110, a cleaning layer in the same area. Whilst many of the other vessels recovered from these contexts are much more complete it is likely that they were deposited at the same time, and that the fragility of the gritty fabric means that they tended to break into small fragments.

#### *Forms*

The predominant type is the jar of various forms; all are heavily sooted on the exterior, having been used over a fire probably as vessels for stewing. All forms are glazed internally only with a dark, often uneven, glaze.

#### **Catalogue of the post-medieval coarse gritty wares** (Figure 4.13).

144. Sooted barrel-shaped jar (or cauldrons) with right-angled squared rims, and with two handles, glazed internally only; SF746, context 77/SF56, context 79.
145. Sooted jar, glazed internally only, in a coarse gritty fabric; SF2100, context 77, SF2049, context 165, SF2050, context 155 as catalogue 75.
146. A sooted jar with a right-angled squared rim, with a slight constriction at the neck and glazed internally only, SF1274, context 328. Similar to a 17th-century coarse-ware form at Wrenthorpe (Moorhouse and Slowikowski 1992, 102 fig 372).
147. Barrel-shaped, sooted, jar with flat, flanged rims variant of 75 and 76, glazed internally only, SF741, context 77, SF1340 and SF1342, context 95, and SF2108, context 79.
148. Constricted necked, sooted, jar - glazed internally only; SF188, context 110, SF555, context 269 and SF753, context 77.
149. Sooted jar, glazed internally only; SF1341, context 95 as catalogue 79.

#### **Border Ware** (Figure 4.14.150)

One near-complete Haslam Type 2 'globular or barrel

shaped' mug in Border Ware, with encrusted decoration was recovered from two overlying layers, 154 and 237 (SF1745 and SF1746, Fig. 4.14.150), (Haslam 1975, 176 and 173, fig. 6, nos 53-63). No part of the base or handle was present. The bulk of the vessel was found in one spot on top of a near-complete yellow ware cup (SF1780, Fig. 4.14.153) and within a shallow depression in the natural subsoil.

The Lea Green mug is finely made and well finished, with four cordons at the neck (Fig. 4.14.150). No cordons are visible near the base. The handle had an oval section (although only the attachment survives), attached at the top, over the neck cordons, and at the lower end at the widest point of the body of the vessel. The decoration is made of a separately rolled out cladding of clay on to which densely packed angular chippings were pushed whilst the clay was still wet. The cladding was then wrapped around the body of the vessel. The mug was glazed with an overall apple green glaze.

#### *Provenance*

The form, decoration and manufacturing quality is typical of the products of the Surrey/Hampshire Border Ware potters, although the use of a green glaze is unusual.

#### *Dating*

The only dated mug of this type found in London comes from a context dated to the mid-17th century (Pearce 1992). The form appears at the Cove kiln site, in Hampshire, at the same date (Haslam 1975). Haslam also records a green-glazed mug, with encrusted decoration, from an unpublished 17th-century group from Oxford. A similar dated vessel was also found at Potterspurty, Northamptonshire (Mayes 1968, fig. 30, 12). The manufacture of the Lea Green mug can therefore be securely dated to the mid 17th century.

#### *Discussion*

Although examples of these vessels have been found in London with a green glaze, Pearce notes that it is 'unusual for any mugs to be covered entirely with this colour' (Pearce 1992, 28; for illustrated London examples, see Pearce 1992, fig. 36, 277-8 and plate 3). At Cove, Haslam notes that most of the mugs are glazed in brown, or a mixture of two of three glaze colours; yellow, brown and green. Green-glazed vessels have also been found at Potterspurty, Northamptonshire (Mayes 1968, 77, fig. 30, nos. 12-13).

Border Wares of this type are quite rare. Whilst the major market for the potters was London, only 31 mugs are recorded in the Museum of London collections, of which only six are of the type found at Lea Green (Pearce 1992, 27-9). Excavations elsewhere in south-west Lancashire have produced a small quantity of other Surrey/Hampshire Border products. A very similar base sherd

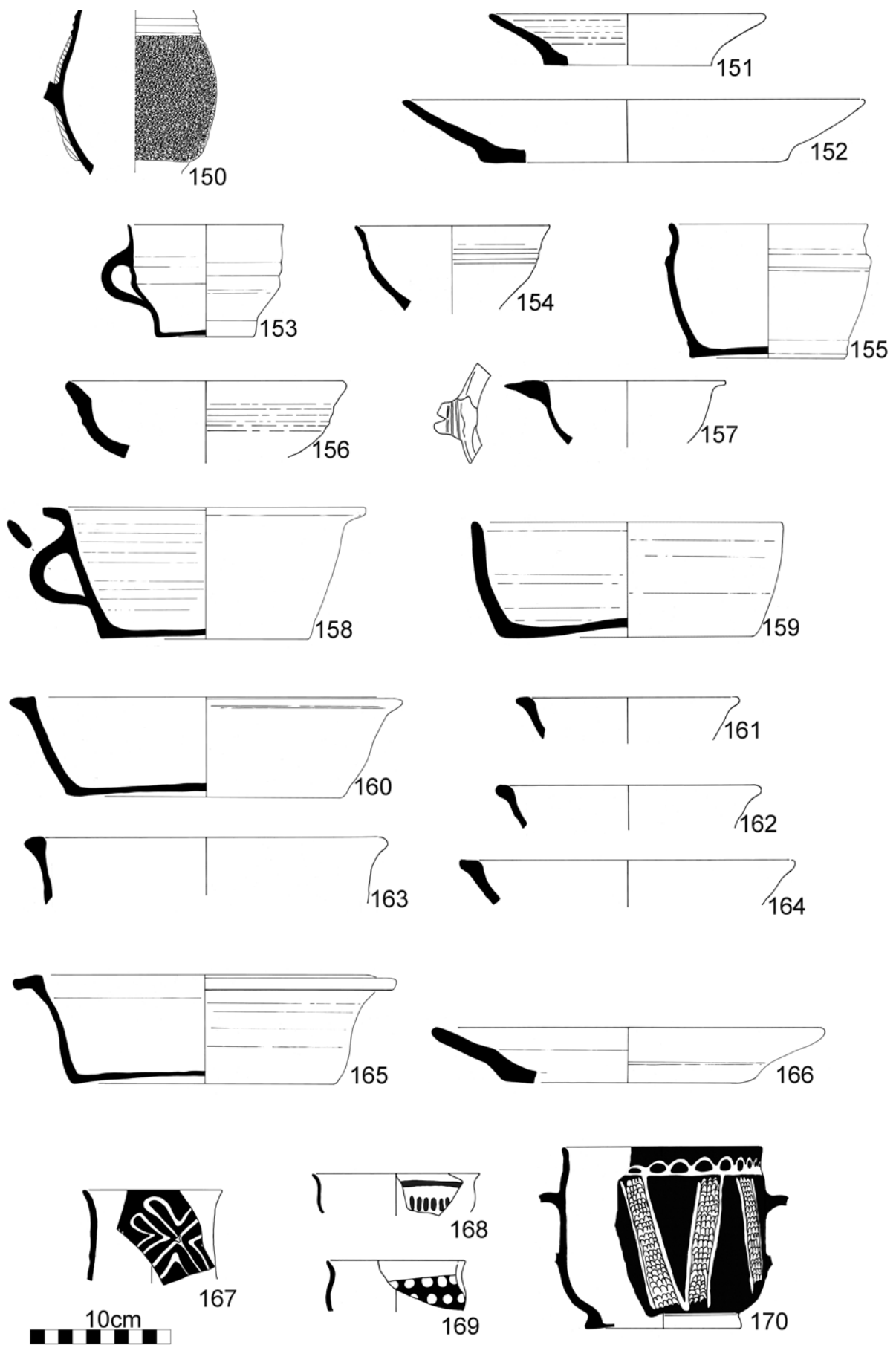


Fig. 4.14: Border Ware, 150; Yellow-Glazed Ware, 151-164; Slip Wares, 165-166; Slip-Decorated Ware, 167-170

was recovered from excavations at the site of Bewsey Old Hall, near Warrington (Lewis *et al.* 2011, 117, fig. 59), a number of sherds are known from Eccleston Hall (Liverpool Museum) and one small sherd from Kemble Street, Prescott (Philpott forthcoming). This suggests that there was a small trade in these products to the north-west of England during the 17th century, although surprisingly there are no complete or even near-complete vessels from Chester (Julie Edwards pers. comm.).

The rarity of this form, even in London, and of Border Wares in general in Chester (Julie Edwards pers. comm.) and the North West suggests that the appearance of the vessel at a small farm in south-west Lancashire is unusual. The vessel was presumably a prized possession, unlikely to have been bought at a local market and may have been a gift or a personal purchase of a member of the family on a visit to the south of England.

**Catalogue of the Border Ware** (Figure 4.14)  
150. SF1745, context 154 and SF1746, context 237.

### Yellow-Glazed Wares

In 1989 the term ‘Northern Yellow ware’ was proposed to show the link to ‘Midlands Yellow’ (Barker 1989). In 1992 this was further extended for the later yellow wares by the introduction of the term ‘dark yellow ware’ (Slowikowski 1992, 31 type 25), which corresponded to the ‘self-coloured wares’ from South Castle Street (Innes 1985, 106-115). Ford and Barker (1999) suggested the use of the generic ‘yellow ware’ term to describe the many different local traditions.

Yellow-glazed ware, or yellow ware, is a soft to hard-fired earthenware, with internal, or external and internal, near transparent, lead glaze which fires to yellow in an oxidising atmosphere. The colour derives from impurities in the glaze and from iron oxides in the clay body or slip coat (Ford and Barker 1999). The darker fabric colour resulted in a more orange glaze (as with Fig 4.14.155).

The impurities in the fabric can often give a dark brown, speckled or mottled effect to the glaze. The characteristic early pale yellow appears to have been deliberate and was produced by applying the glaze sparingly, resulting in a butter-like texture (Woodfield 1966, 79).

### Provenance

Yellow-glazed wares were produced wherever pale firing clays were available and examples recovered from excavations in Rainford have shown that vessels in this ware were being produced in south-west Lancashire. The vessels recovered from Lea Green are comparable with those produced at Rainford and must represent material produced in south-west Lancashire.

### Decoration

There is one vessel decorated with a repeated red slip, vertical dash design. This vessel is discussed further and illustrated with the slip-decorated wares (Fig 4.14.168).

### Dating

Yellow wares developed out of late medieval white-wares and are recognised as a distinct ware by the 16th century. These early yellow-glazed wares are contemporary with the early post-medieval fine-wares (for example at Wrenthorpe: Moorhouse and Slowikowski 1992, 95) and are sometimes referred to as ‘reversed Cistercian wares’ (Ford and Barker 1999). In the North West yellow-glazed wares were produced at Rainford from at least the mid-17th century. Other related refined or utilitarian yellow wares continued to be produced into the 20th century.

The later yellow-glazed wares were often slip coated, to mask the darker fabrics, allowing for a lighter glaze colour.

Many of the vessels from Lea Green fit into the local 17th-century yellow-glazed tradition and there do not appear to be any vessels in this glaze colour contemporary with the early post-medieval fine-wares.

### Forms

Fine-wares occur as cups, small bowls and porringers, with a flat short horizontal lobed handle. Utilitarian wares occur as mixing bowls, chamber pots and flared bowls with squared rims (or pancheons).

**Catalogue of the yellow-glazed fine-wares**  
(Figure 4.14.151-157)

151. Small plate, SF226, context 154.
152. Small plate SF754, context 77/SF1994, context 79.
153. There is one near-complete, single-handled, carinated cup with a side vertical loop handle in a quite stylised form with turned decoration at the waist SF1780, context 237 Found crushed directly beneath the Border Ware mug (fig 4.13.150).
154. Rounded cup similar to catalogue 153 but with more rounded sides SF783, context 77.
155. A fine, well-made wide rounded cup or small, handled, bowl SF324, context 237/SF221, context 154. The fabric is fine, fairly hard and pink in colour. The orange-brown glaze, which is much darker than the pale yellow of the cup above, is even and fairly glossy on the interior and exterior (although thinner in patches on the exterior). The base is filled with exploded grits; probably damage caused during the firing. A similar glaze colour appears on vessels from Rainford, although, on a paler, softer, fabric and seemingly in different forms. A similar mid-17th-century form occurs at Potovens (Brears 1971b, 22-4, fig. 9. 2 and 10.13).
156. Small rounded dish, SF400, unstratified.
157. Small bowl (or porringer) with a flat lobed handle SF585, context 108/SF1734, context 237. The handle has incised grooves, possibly for use with rope or string.

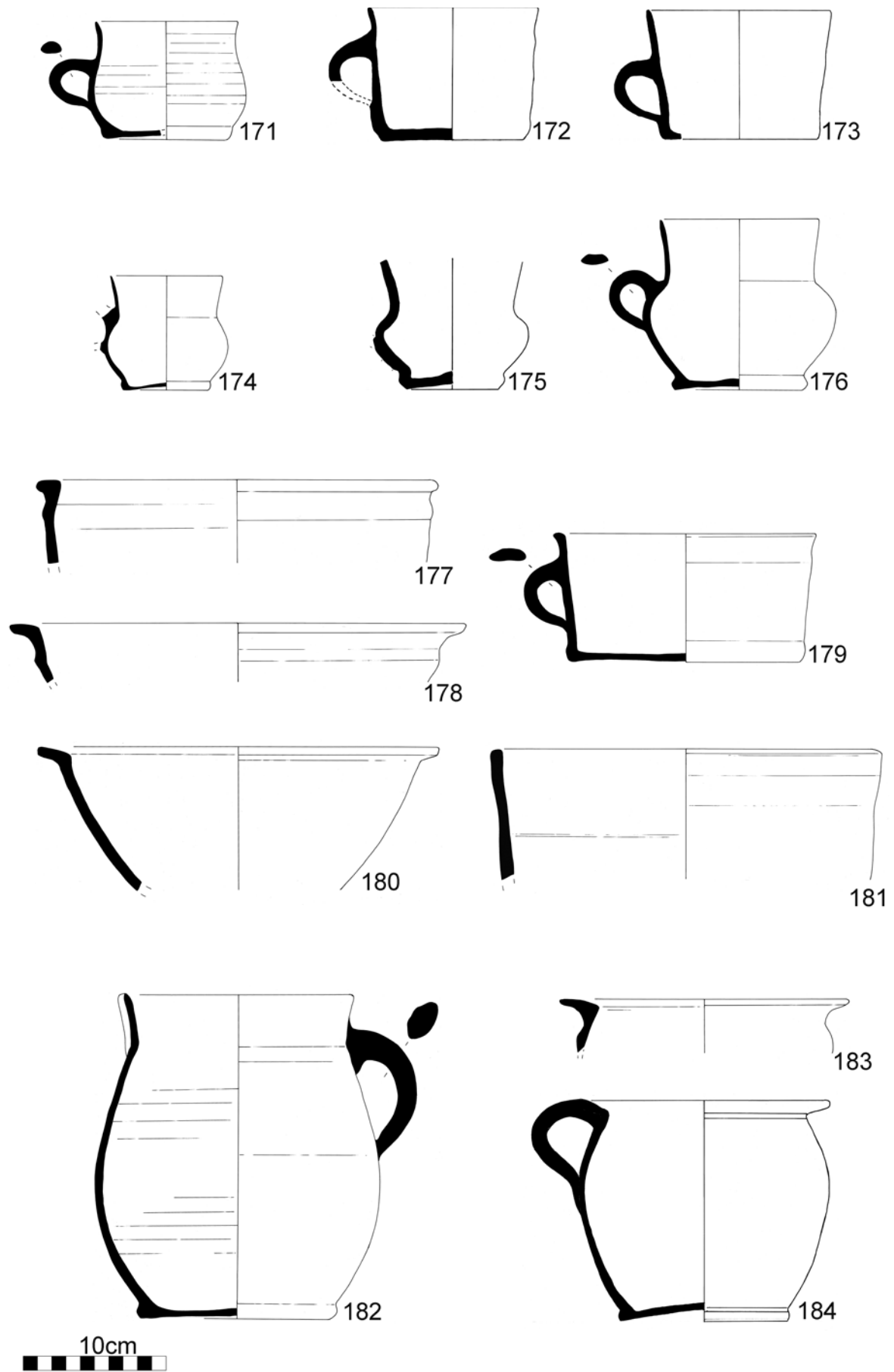


Fig. 4.15: Mottled Ware, 171-184

### Yellow-Glazed Coarse-wares

There are 75 sherds, weighing 3182 g, from 22 contexts and unstratified deposits. Of these only five sherds, weight 185.1 g, are later 19th-century pieces from two late contexts 69 and 165. The rest are all 17th century in date.

#### Forms

The majority of coarse-ware vessels are flared bowls, with squared rims. The form is found both with and without handles during the 17th century, which may indicate different uses for the variants. The flared bowl form is present at Rainford. There is also one chamber pot. The vessels appear in both red and pale fabrics.

#### Glaze

The glaze colour depends upon the fabric and the firing conditions, varying from a pale yellow, through honey coloured, to brown, often speckled by iron inclusions from the body.

Amongst the coarse-wares a rich yellow glaze colour often occurs, largely as a result of the use of slips to hide the orange- or pink-firing clays and in an effort to reproduce a similar yellow-glaze to the fine-wares produced solely from the more expensive light-firing clays (see white slip-coated red bodied wares below).

### Catalogue of the yellow-glazed coarse-wares

(Figure 4.14.158-164).

158. Handled bowl with right-angled, squared rim. The presence of sooting over the rim of this vessel shows use over a fire. SF805, context 77. The form appears at Rainford in a self-coloured ware (Davey and Morgan 1978, 76, fig. 3-4). It is also paralleled by a blackware vessel from Civil War deposits at Beeston Castle (Noake 1993, fig. 132 41) and at Potovens (Brears 1971b, 22 fig. 11 32).
159. Bowl with curving sides, SF804, context 77/SF1242, context 110.
160. Flaring bowl, SF772, context 77.
161. Fragment of a flaring bowl rim, SF279, context 61.
162. Fragment of a flaring bowl rim, SF634, context 155.
163. Upright bowl, SF477, context 165.
164. Shallow dish, SF1198, context 237.

### Slip wares

In 1686 Dr Robert Plot described a slip as ‘the substance wherewith [the potters] paint their wares’, being clay mixed with water, thinned to a consistency ‘thinner than syrup’ (Plot 1686, 122). The slip can be added to a vessel in several ways; as a slip-coating, a thin overall coating, usually in a different colour from the body of the vessel and glazed to give a better glaze finish or even colour; or as a decorative technique it can be added to a vessel in a number of designs; trailed, combed, feathered, jewelled, stamped, impressed, marbled or as ‘sgraffito’ (designs scratched through a slip coating).

### Red Slip-Coated Fine-ware

This is a thrown earthenware characterised by the use of a dark red slip coat beneath a clear glaze over a well-prepared pale fabric (Davey 1988). Whilst many 18th-century coarse dark-glazed wares have a pale fabric with a red slip coating, this ware is principally restricted to fine tableware forms with a very even glossy glaze covering. The use of lead glaze on a thick slip achieves a very even finish, superior to the majority of equivalent dark-glazed tablewares. The glaze is usually an even black colour but can appear brown in certain lighting conditions.

#### Dating

Red slip-coated fine wares are often found alongside mottled wares and have a similar date range, although wares of similar description are recorded in several places in the later 18th and into the 19th century. They fill a gap in production between the dark-glazed fine-wares and the higher quality high-fired salt-glazed stonewares, creamware and porcelain.

Red slip-coated fine-wares have been recovered from contexts dating from the late 17th century up to at least the 1770s and have a similar date range to mottled wares. They are found in pre-1726 contexts at South Castle Street; in pit groups from Stafford, dated to 1715-20 and also 1790-1810 (Barker and Holland 1986) and in a large pit at Bewsey Old Hall *c.* 1800 (Lewis *et al.* 2011, 123-8). There is also a slip-coated, sgraffito decorated posset pot dated 1723 (City of Stoke on Trent Museum Glaisher collection 1726-1732, vessel from Rous Leach collection 1730).

Similar wares are described at Brookhill in Buckley in contexts dated 1690-1720 and they were still being made at the Hancock pottery between 1810-30, although this may be a reference to coarse-ware vessels (Amery and Davey 1979).

#### Provenance

They appear to have been produced throughout north-west England at sites that also produced mottled wares.

Undecorated red slip-coated fine-wares form a tiny component of the Lea Green assemblage possibly suggesting a relatively early date for the assemblage. There are three highly decorated vessels with red slip coating, which forms a ground to a white slip-trailed decoration. They represent a decorated version of this ware. Two were recovered from ditch 56 (Fig.4.14.169, SF243 and Fig.4.14.170, SF801) and one from context 155 (Fig.4.14.167 SF596) (see slip-decorated wares).

### White Slip-coated Red-bodied Wares

There are a total of 77 sherds (weight 2993.1 g) of white slip-coated red bodied wares from 12 contexts

and unstratified deposits. Of these by far the majority, 59, came from only four contexts; 18 sherds, weighing 1600.6 g (average 88.9 g), were recovered from fills of ditch 56, contexts 77 and 79, composed largely of two near-complete vessels (SF804/1242; SF132/SF764), while a further 19 sherds, weighing 359.6 g (average 18.9 g), came from context 209 (the backfill of a drain, cut through an earlier cobbled surface, 140) and 22 sherds weight 373.4 g (average 16.9 g) from context 165, a rubble spread north of the outside toilet.

The remaining 18 sherds were recovered from eight contexts and unstratified deposits. No context produced more than four sherds, although the average sherd weight of 36.6 g is quite high, probably a result of the robustness of the pottery.

The use of a white slip reproduces a rich yellow glaze colour on cheaper orange- or pink-firing clays. The slip coats are often poorly applied, with areas of the vessel sometimes missed or only thinly coated, while thick drips of slip are found on the exteriors not coated.

#### Dating

The vessels illustrated here date to the 18th century, but large pancheons continued to be produced in places such as Buckley, and elsewhere, until the middle of the 20th century (McGarva 2000, 18-20, 109).

#### Catalogue of the white slip-coated, red-bodied wares (Figure 4.14.165-166)

165. White slip-coated, red bodied, and slightly flaring bowl with right-angled squared rim, SF132, context 79/SF764, context 77.
166. White slip-coated, red bodied, plate; SF104, context 79. A similar vessel dated to between 1650 and 1730 appears at South Castle Street, Liverpool (Innes 1985, 112, fig. 40.299).

#### Slip-decorated wares

There were 36 sherds of slip-decorated wares, weighing 731.5 g, recovered from the excavations. They appear in a hard, fine, off-white fabric with no inclusions visible. The hollow wares are glazed thickly internally and externally, while the flatwares tend to have only internal slip decoration and glazing.

#### Catalogue of the slip-decorated wares (Figure 4.14.167-170)

Of the total number of sherds, 28 have some form of red slip coating; as a background to white slip decoration. They form five vessels, four of which are illustrated:

167. Cup with a red slip ground, white slip-trailed decoration, SF596, context 155.
168. Small cup (or possibly jug) in a white fabric with a red slip-trailed/dot decoration, SF2236, context 79. Similar decoration appears on a vessel Urmston Hall (Stanley 1989, 38 fig. 7 d).

169. Small cup in a white fabric with an external red slip ground and white slip dot decoration, SF243, context 79.
170. The largest single vessel, a two-handled hollowware red slip-coated vessel with a combined white trailed and combed decoration, SF801, context 77.

There are also four sherds from press-moulded dishes with joggled, feathered and especially trailed and combed decoration; SF278, context 61, SF345, context 88, SF383, context 117 and SF668, context 165, possibly from one dish. (not illustrated).

One base sherd fragment from a hollow ware with slip-trailed and jewelled decoration, with a probable infill of different coloured slip, SF1859, context 26, (not illustrated).

#### Mottled Wares

Mottled wares are characterised by a hard, fine light buff fabric with occasional streaks of white or red, while the distinctive glaze, internally and externally, is honey or straw-coloured with dark brown streaks. The dark mottling is derived from colouring agents, present within the glaze, unlike self-coloured wares where the effect is caused by the presence of iron impurities within the fabric reacting with the glaze. There is also a dark version, with the same fabric colour but much darker, almost black, glaze due to the overloading of the streaks in the glaze.

Analysis of the dark streaks in the glaze from vessels from South Castle Street, Liverpool, suggests that the mottled effect was due to the addition of iron (Philpott 1985b, 54-5).

#### Dating

The earliest reference to a 'motley' ware appears in 1686 (Plot 1686, 123) suggesting that mottled wares were already in production by the 1670s in Staffordshire. In south-west Lancashire the evidence from excavations at South Castle Street, Liverpool, shows that they were certainly in extensive use by the early 18th century and they continued to be produced in Prescott up to the 1780s (Oswald *et al.* 1982, 202; Philpott 1985b, 52; McNeil 1989, 63).

There is a total of 471 sherds of mottled ware sherds recovered from Lea Green, weighing 12215.1g, from 38 contexts and unstratified deposits.

#### Fabrics

There appears to be many variants within the basic fabric and many have very dark mottled glazes, some almost completely brown which may be of later date. Four variations were identified:

Fabric 1, classic mottled ware; a fine buff fabric with an even glossy brown to honey brown glaze mottled by dark streaks.

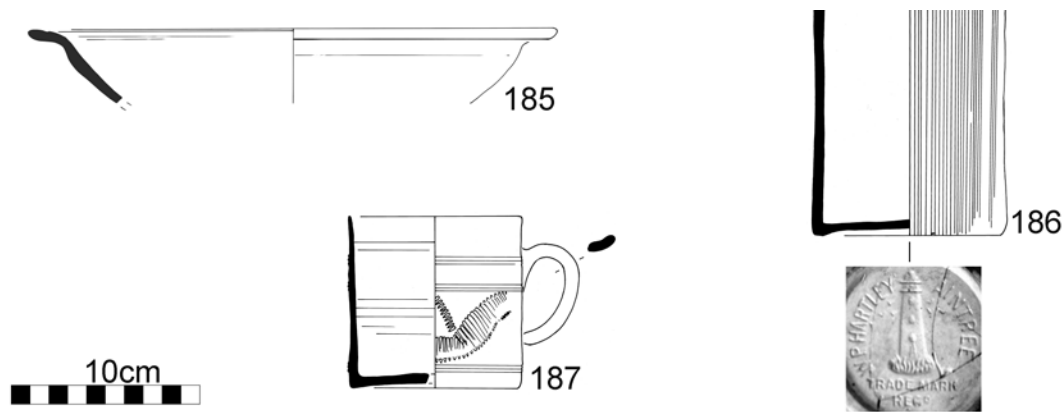


Fig. 4.16: Agate-Bodied Ware, 185; White Stoneware, 186; Brown Stoneware, 187

Fabric 2a and 2b, dark-glazed mottled wares. The glazes on these fabrics tend to be overloaded with iron resulting in a much darker, near-black, glaze with the streaks largely disappearing in the overall colour of the glaze.

Fabrics 3 and 4 are similar. The use of slip enables the products to be made of cheaper inferior fabrics and they are less well finished than classic mottled ware.

Fabric 3 slip-coated mottled ware.

Fabric 4 slip-coated red bodied mottled ware.

#### Forms

There are number of complete or near-complete vessels, most of which were recovered from contexts in ditch 56. These include six cups of various shape, a handled bowl, a large jug and chamber pots. There are also a number of other bowl rim fragments and a straight-sided bowl with double looped handle, SF134, context 79 (not illustrated).

#### Catalogue of the mottled wares

(Figure 4.15.171-184)

171. Rounded cup, SF781, context 77.
172. Straight-sided, slightly flared cup or mug, SF2000, context 61.
173. Mug, as catalogue 172, SF778, context 77.
174. Small globular necked cup with flared rim cup, SF808, context 77.
175. Medium cup, similar in shape to catalogue 174, SF424, context 110.
176. Large cup, similar in shape to catalogue 174, SF788, context 77.
177. Bowl, SF1418, context 112. A similar form is described as a jar at South Castle Street, Liverpool (Philpott 1985b, 58; fig. 85-7).
178. Flaring bowl with flat rim and reeding around body SF1577, unstratified.
179. Straight-sided handled bowl, SF787, context 77. A similar although larger vessel does not have the thickening at the rim.
180. Coarse conical bowl with flat rim, in pink fabric with dark glaze, SF2095, context 77. A similar self-coloured vessel appears at South Castle Street, Liverpool (Innes 1985, 110 fig. 289).
181. Straight sided bowl, similar in form but without the

thickening at the rim, or any evidence of a handle, to catalogue 179. SF1427, context 221.

182. Large rounded jug with pouring lip, SF794, context 77.

183. Chamber pot SF1541, context 120.

184. Chamber pot SF103/SF2006, contexts 77 and 79.

#### Provenance

Mottled wares were produced in Prescott, from the local Coal Measures clays (Oswald *et al.* 1982, 202; Philpott and Davey 1984, 19 and 23; McNeil 1989, 60-1; Holgate 1989; Philpott 1989c, 95). Production elsewhere in the region is likely, if not yet proven.

#### Discussion

It is notable amongst the Big Lea Green Farm assemblage that there are very few of the classic finely turned tankards with cordon decoration, which were common during the early part of the 18th century. Indeed, most of the vessels present are simple and relatively coarse for this ware. This may reflect the nature of a small farming community or of the assemblage itself. Many of the more complete pieces were recovered from contexts associated with ditch 56. A late mottled teapot spout in context 77 is likely to be intrusive, as a result of the rapid excavation of that context at the end of the excavation. However, a straight-sided cup recovered from a later context 61 appears to be very similar to others from the ditch and the make-up of the assemblage may therefore also reflect a so far unrecognised chronological pattern.

#### Tin-glazed wares

Tin-glazed wares were produced in large quantities in Britain during the 17th and 18th centuries at a number of centres including Liverpool (Fisher 1971, 5; Smith n.d. 16-18; Black 2001, 4). They were made in a low-fired earthenware body with white, tin oxide added to the glaze. Unfortunately the clay body was not durable, the glaze was easily chipped and the vessels proved unsuitable for use with hot beverages.

Between 1710 and 1760, there are records for 14 factories in Liverpool, producing a massive quantity of tin-glazed pottery, much of it for the American market



Fig. 4.17: Post-medieval pottery (not to scale). 1. Early post-medieval jug SF872; 2. Border ware SF1745, SF1746; 3. Dark-glazed cup SF294; 4. Yellow ware cup SF1780; 5. Dark-glazed ware cups SF793 (L) and SF791 (R); 6. Slipware cup SF801; 7. Dark-glazed coarse wares SF2054 (L), SF770 (front), SF797 (R); 8. Yellow ware vessels SF772 (L), SF805 (front), SF132 (R); 9. Pancheon SF2059

(Black 2001, 8; Tyrer 1968, 261). The production of tin-glazed wares peaked in the middle decades of the 18th century and then sharply declined. Only a few factories continued into the 19th century, when all production ceased.

#### *The excavated tin-glazed pottery*

There were a total of only 14 sherds of tin-glazed ware recovered from the excavations, weighing 40.3 g, from 12 different contexts. The average weight is less than 3 g, with the largest piece weighing only 7.5 g. This gives an indication of the fragility of the material and its poor survival on site.

Four sherds were excavated from contexts associated with ditch 56, two of which constitute the largest single fragments recovered from the site. Four sherds were also found in contexts associated with a series of early pits and a boundary ditch. These sherds are either very fragmentary or were recovered from mixed late, overlying or inter-cutting contexts. None is illustrated.

#### *Discussion*

Given the size of the Liverpool tin-glazed pottery industry it might be considered surprising that so little was recovered from the excavations. However, it is more likely to be as a result of the fragility of the material, or even a reflection that the wares were more highly prized and therefore less likely to be thrown away alongside the other more utilitarian wares. This is supported by documentary references to the use of tin-glazed pottery on the farm, for example where it is listed in the Inventory of John Hawarden 'gentleman' of Sutton, Lancashire taken on 10 May 1715 (Table 1.3).

#### **Agate-bodied ware**

The marbled effect of agate-bodied ware was made by mixing red and yellow clays and covering the body with a glossy clear glaze. The blending of the two clays was not only decorative but could also serve to make a poor clay workable. The flatwares were often decorated on top of the rim with white trailed slip, which was frequently incised with rouletted impressions. These wares were common in the third quarter of the 18th century. They were produced in south-west Lancashire and North Wales and were exported to America in large numbers (Noël Hume 1969, 132).

Only four sherds were recovered from the excavations, all from late, mixed contexts, 61, 120 and 165.

#### **Catalogue of agate-bodied ware**

(Figure 4.16.185)

185. Rim sherd of a shallow dish; with a rouletted, trailed slip decoration on top of the rim; SF135, context 120.

#### **The 19th-century ceramics**

There is a total of 8584 sherds of 19th-20th century pottery (weighing 80.29 kg). Over 80% of this material was recovered from only three contexts; context 69, a highly concentrated deposit composed almost entirely of 19th-century pottery, glass and clay tobacco pipe; context 120, a cleaning layer designated to the area west of the foundations of the building; and context 165, a rubble spread north of the outside toilet. Two-thirds of the modern pottery from these three contexts (by count) came from context 69.

Context 69 produced over 9500 pieces, weighing some 13 kg, at an average weight of only 14 g. The material includes earthenware, English china and other pottery, as well as kiln waste. The feature was relatively shallow and the discovery of the beginning of a ceramic drain, under the material, suggests that the material was intended to aid drainage around a buttress/wall over/through the backfilled ditch 56. The clay pipe assemblage suggests a close date of deposition of 1860-65 (Higgins this volume).

The cleaning layer, context 120, produced a total of 1621 finds, weighing almost 6 kg. Of these, 1494 are pottery with a wide date range. The clay pipe analysis shows a similar pattern, dating from 1610 to 1900. The majority of material would appear to come from late, probable garden deposits. Whilst a mixed date range must be expected from such a cleaning layer, some of the earlier pieces are likely to have derived from sealed contexts below. There are certainly some cross-context pottery joins between finds recovered from context 120 and from the fills of ditch 56. This would seem to be supported by the clay pipe evidence, where the majority of clay pipes also fit into a much closer date range of 1660-1720, which is similar to those of the fills of the ditch (Higgins this volume, pp. 80-87).

Context 165, a rubble spread which overlay the north-south ditch 166 to the north of the outside toilet, produced 1113 sherds of pottery (55.183 kg), ranging in date from a few sherds of early post-medieval to a large quantity of modern pottery. Like context 120, a number of the earlier finds may have been collected from potentially sealed contexts below.

The group contain excellent diagnostic examples of 19th-century pottery. Amongst the late dark-glazed coarse-wares two basic forms are represented; the large jars (or storage vessels) and the flared bowl with a squared rim (or pancheon). The jars vary from shallow rimmed vessels with purplish glazes to the classic 18th-century form with an unglazed exterior. A small number of the flared bowls have the classic 18th-century squared rim but the majority of rims are glazed over the top and are 19th century in date.

The clay pipes suggest a date range from 1610 to 1900, with three of the four bowls dating to the 19th century, which is consistent with the evidence of the other material recovered from the context and suggests that the context was sealed during the late 19th century.

### **Porcelain**

Porcelain is a 'white, vitreous, and translucent ceramic', made of white china clay and a feldspathic stone, which when fired to a high temperature are fused into its characteristic glassy matrix (Cohen and Hess 1993, 67).

A total of 210 sherds, weighing 1464.1g, was identified during rapid statistical analysis of the white china recovered from the site. Further analysis is required but there appears to be no Chinese porcelain within the assemblage. Dating is uncertain but the contexts from which porcelain has been recovered with other finds can be dated to 19th- and 20th-century occupation, except one sherd from context 79, the fill of ditch 56.

More than 75% of all the porcelain comes from two contexts; context 269, the primary fill at the northern end of the ditch 166 and context 69, a dump of 19th-century pottery and kiln furniture, used to aid drainage next to the house. A further 11 sherds were recovered from a general cleaning layer and 10 sherds from a second dump of domestic refuse up against wall 62.

The clay pipes from context 269 are all quite closely dated between 1690 and 1720, although the porcelain and other finds present in the context are likely to be much later and may be present as a result of mixing with a later rubbish deposit as a result of heavy truncation by later drains.

### **Stonewares**

Stoneware is an extremely hard pottery produced from clay fired to such a high temperature that the body has vitrified and become waterproof, unlike earthenwares, which need to be glazed to hold liquids (Fisher 1971, 4; Oswald *et al.* 1982, 15). Stoneware is very strong and durable, could be potted thinly and needed only to be glazed for ornamental purposes.

Salt-glazed stoneware is glazed by throwing salt on to the pottery in the kiln when the kiln reaches a very high temperature. The resulting vapour is deposited on the surface leaving a lustrous sheen, often with a characteristic pitted texture like orange-peel. The orange peel effect later disappeared with the invention of more sophisticated glazes (Henrywood 1997, 203). The stoneware was normally grey in colour, but the exterior was often covered with an iron wash, which fired to a mottled brown. Although coarse, it was strong and durable, and from the middle of the 19th century was used almost exclusively for utilitarian wares.

### **White Salt-Glazed Stoneware**

White salt-glazed stoneware was developed to compete with the expensive porcelain imports and the cheaper, but less robust and easily damaged, tin-glazed wares.

There are a total of six sherds of white salt-glazed stoneware from the site, weighing 28.4g (from two contexts 209 and 273), with a further two sherds with Scratch Blue decoration, where designs are scratched into the surface of the vessel and infilled with blue stained clay, weighing 8.8g (from contexts 73 and 165).

For a type of pottery so widely produced and available on the market there are surprisingly few white salt-glazed stoneware sherds identified from Lea Green. This may in a large part be because it has not been identified amongst the mass of white china recovered from a small number of late deposits, but it is striking that little was recovered from the other general and later cleaning layers. The eight sherds were all recovered from disturbed contexts alongside clay tobacco pipes dated to the mid-19th century.

#### *Dating*

White salt-glazed stoneware was first made in Britain during the late 17th century, with a grey earthenware body with a white slip coating (Draper 2001, 36). The material appears in dated contexts in Liverpool in 1715 (Davey and McNeil 1985, 11). True white salt-glazed stoneware was produced in commercial quantities from the 1730s and is found in excavated contexts up to 1760 (Davey 1985, 11). It is known to have been produced into the 1770s, when it was largely replaced by creamwares, which were equally durable and light but easier to decorate and cheaper to produce (Draper 2001, 39).

#### *Forms*

The white stonewares were ideal for the fashionable tea wares of the growing middle-class market and the sophisticated designs related more to the traditional shapes made in silver than to other contemporary pottery styles (Draper 2001, 38).

#### *Provenance*

White salt-glazed stoneware was produced in Liverpool and Prescott during the mid-18th century (Farrer and Brownbill 1907, 353; Lloyd 1982, 24; following Jewitt 1883, 329; Davey 1989a, 104-5; Draper 2001, 39).

### **White Stoneware Jam Jars**

There are four complete or near-complete white stoneware jam jars with a ribbed pattern on the exterior. One trade-marked jar is illustrated (Fig. 4.16.186), the other three are complete but have no trademark; SF70, context 63; SF456, context 61 and the third SF455, context 61 has a brown wash on the upper body.

**Catalogue of the white stoneware jam jars**

(Figure 4.16.186)

186. A near-complete marmalade jar, made of nine joining pieces (SF171, context 63.), with an impressed trademark of a lighthouse and the words W. P. HARTLEY/AINTREE TRADE MARK REGd on the base. The jar was made at the Midland Pottery, also known as the Melling Pottery, in Melling, Liverpool, between 1877 and 1928, for the Hartley's jam factory at Aintree, Liverpool.

**Brown Stoneware**

Whereas white salt-glazed stoneware is rare at Lea Green, the brown stonewares appear in large quantities. There is a total of 720 sherds of brown stoneware, weighing 35.32 kg, from 44 contexts as well as unstratified deposits, as opposed to only six of white salt-glazed stoneware and two of Scratch Blue (although this figure may change with closer analysis). Of the 44 contexts from which brown stoneware was recovered, only 10 held more than 10 sherds (61, 69, 88, 120, 165, 167, 209, 224, 269 and 301).

There are a number of documentary references for the production of brown stonewares in Liverpool, St Helens and Prescot from the 18th century up to the early 20th century (Davey 1978a, 56-7; Oswald *et al.* 1982, 201-2; Hollis 1989, 37; Barker and Harris 1993, 129). Local production, certainly in the later years, appears to have concentrated on coarse sanitary wares and bottles for which the local clays were well suited. However, the chief production centre for brown stoneware throughout the 18th century and 19th centuries was Nottinghamshire and Derbyshire, although the Staffordshire factories did produce brown stoneware.

During the 18th century a vast range of forms were made, including jugs, bowls, mugs, teapots, tea caddies, cups and saucers. Many of the vessels were highly decorated. By the beginning of the 19th century the tableware market was taken over, initially by the white stonewares, and then creamware and production was limited to containers (Oswald *et al.* 1982, 19).

The majority of pieces recovered from the site would appear to be from more utilitarian kitchen ware forms, large bowls and jars, rather than the fine highly decorated tablewares of the 18th century.

**Catalogue of the Brown Stoneware**

(Figure 4.16.187)

187. Only one vessel is illustrated. A near-complete short tankard, with crude rouletted tulip decoration; SF782, context 77. Similar vessels are dated between 1700-26 (Oswald *et al.* 1982, 1982, 107, fig 62; Danby and Philpott 1985, 80-2; fig.28 and 29).

**Discussion**

The disparity in the numbers of white and brown stoneware sherds, alongside the forms that appear on the site, suggest a mid-19th-century date of deposition, for the three contexts from which the majority of brown stoneware was recovered. The single datable illustrated tankard was recovered from an early 18th-century context.

**Later refined earthenwares**

During the initial processing it was decided to concentrate most effort on recording the earlier pottery and many of the later types from large modern contexts received minimal attention. Where time has allowed, some contexts have been divided into general sub-categories to aid future detailed analysis of this material. This means that the recorded groups that follow represent only a preliminary assessment of this material from the site.

**Basalt Ware**

Hard, black stoneware produced from the middle of the 18th century, sometimes called 'Egyptian black'. Wedgwood called it basalt in the early 1770s after refining the fabric. Most basalt wares, usually undecorated except for engine turning and moulding (Fisher 1971, 39), were made in elaborate classical styles. It was made in vast quantities throughout Staffordshire and also at Leeds.

There are a total of nine sherds of basalt ware (weight of 105.3 g). Over half were recovered from one mid-19th-century context, 69.

**Creamware**

A lead-glazed, twice-fired earthenware made of ball clay with flint added to the body. It was strong, as light as porcelain but much cheaper to produce, was easily decorated and had the enormous benefit of being able to stand up to thermal shock (Hughes 1959, 23). It was used widely for the manufacture of tea wares and tablewares, but especially tea-pots, which had been difficult to make previously.

Creamware dominated the market between 1760 and 1780, although it was still in use into the early 19th century, at which time the colour of the fabric was almost white and was made in huge quantities at Liverpool and at all major centres of pottery production (Fisher 1971, 38).

There were a total of 46 sherds of creamware, weight 215.0 g, identified from the cursory examination of the Lea Green assemblage. Of the total number of sherds, 29 were recovered from only one context 209, the backfill of a drain, cut through an earlier cobbled surface (140),

with only 10 identified from context 69. The finds from context 209 are very mixed including coal, kiln and glass waste. The evidence from the tobacco clay pipes provides a wide date range from 1610-1900, although in general the finds suggest a late 18th- or more likely first half of the 19th-century date for the context. Later finds are few in number and quite fragmentary.

### **Black transfer-printed jars**

Amongst the assemblage there is a small group of jars, in a possible creamware fabric, with black transfer-printed designs/advertisements, all from context 69 (12 sherds, weighing 244g).

### **Pearlware**

Pearlware contained a greater proportion of crushed flint and white clay than creamware, to whiten the body. A small trace of cobalt and copper was added to the transparent glaze for a further whitening effect, giving the surface a blue-grey tint. The blue tinge was strongest where the glaze pooled around the base (Noël Hume 2001, 227). Pearlware was the dominant ware produced between 1780 and 1830, but remained in common use until the 1860s (Hughes 1959, 24-6; Cohen and Hess 1993, 31; Noël Hume 2001, 224). The fabric was decorated by a number of different methods but proved to be an ideal base for underglaze blue transfer-printing.

Only a cursory examination and quantification of the white earthenware fabrics was undertaken. A total of 12 sherds of pearlware were identified, weighing 126.1g, spread evenly across five different contexts.

### **Shell-edged decoration**

The shell-edged rim, painted in blue, or less frequently in green, was used commonly on creamware, pearlware and whitewares, on a range of vessels but predominantly on plates. Underglaze painted shell edge decoration is predominantly a pearlware type, but shell edge plates continued to be made throughout the 19th century in whiteware (Noël Hume 2001, 227-9). It is an easily identifiable form of decoration which may explain the high numbers identified on site. There are a total of 185 sherds (weighing 2359.3 g), with blue or green shell-edge decoration, from 15 contexts with 129 of the total number coming from only two contexts (69 and 165). The only other significant context is context 224 with 11 sherds. The relatively simple style of the decoration suggests a date between 1840 and 1860, before the moulded edge detail became a simple painted pattern.

### **Whiteware**

The gradual whitening of the pearlware glaze by the 1840s resulted in the standard white earthenwares which became the backbone of pottery manufacture from the

1830s onwards, overtaking the stonewares and early earthenwares, and helped create a wider market for colourful wares (Hughes 1959, 26; Henrywood 1997, 172). The glaze often retains a hint of blue, which is probably derived from the blue-printed decoration.

There are a total of 3140 plain white china sherds, weighing 27828.9g. They are largely undecorated, although some are moulded. Over 60% of the sherds came from three contexts, 69, 120 and 165, with the majority from 69.

### **Slip-banded whitewares**

Slip-banded whitewares are 19th-century white earthenwares decorated with bands of slip across the middle of the vessel, which is often decorated. There are a total of 762 sherds (weight 6117.2 g) in four slip colours, blue, yellow, green and brown, recovered from 21 contexts, with 86% of the total number of all sherds being recovered from only three contexts, 69, 120 and 165. This is the most common 19th-century decorative method, and continued in use and into the mid 20th century.

### **Lustre ware**

Amongst the large quantities of 19th-century earthenwares from Lea Green is a small group of lustre ware pottery. Lustre was applied to ceramics solely for decoration, being used for overall colouring, which enabled potters to produce vessels cheaply, closely imitating vessels made in silver and gold (Gibson 1983). It was also used as painted decoration or as over-painted resists. Printed or enamelled decoration was often applied either upon the lustred surface itself or in unlustred bands or 'reserves'.

There is a total of 49 sherds of lustre ware pottery recorded from the site, weighing 476.9 g, from four contexts. Most of these sherds came from three contexts 69, 120 and 165, however, there was one near-complete lustreware jug excavated; SF1372 from context 222, composed of seven sherds (weighing 170.7 g), alongside two pieces of undiagnostic glass and two other residual pottery sherds. Due to the completeness of the vessel and the fact that little other material was recovered from this context a fairly detailed report on this one vessel follows.

The Lea Green jug is made of a fine, red fabric with a white interior slip (up to 30 mm from the top of the rim), and a panel of blue on the exterior. The rim and exterior of the base has an overall gold lustre (purple where it covers the slip); with a resist gold/purple lustre pattern on top of the exterior blue panel. There are some wear marks around the rim and spout and under the base where the lustre has been removed revealing the colour of the body of the vessel underneath.

### Dating

Lustre ware pottery with a metallic film over the glaze, was made in Britain in large quantities during the 19th century. It is difficult to closely date due to the reuse of moulds and revival of styles at different times and dating can really only be aided by a few dates associated with the introduction of certain processes (Hughes 1959, 83). Whilst the process is known to have been perfected by 1805, the use of a red fabric for the vessel would appear to suggest a date after 1823 (Hughes 1959, 81; Caiger-Smith 1985, 156). The use of purple lustre for scenic pictures, thinly painted in designs over white glaze, was popular until the 1860s (Hughes 1959, 80). The fabric, fine quality of vessel and the lustring of the Lea Green piece suggest a date between 1823 and the 1860s.

### Hand-painted earthenware

During the early 19th century, the fashion for hand-painted jugs diminished, reflecting the high cost of skilled workmanship and the natural tendency for potters to concentrate on more easily produced printed wares. However, the quality of the hand-painted wares that continued to be produced deteriorated steadily throughout the century (Henrywood 1997, 19, 23).

A total of 134 sherds (weighing 1884.2 g) are present. Of these sherds, 66% were recovered from context 69, with a further 18% from 165.

### Transfer-printed earthenwares

Alongside the development of the new cheap and lightweight pottery types, manufacturers also made efforts to provide a cheaper method of decoration. Transfer-printing, invented during the mid-18th century, enabled designs to be reproduced quickly and cheaply, on large numbers of vessels. From this time transfer-printed earthenwares have been produced in huge quantities at factories all over Britain. The 'Willow Pattern', which was standardised by 1790, was in common use by 1820 and continues to be produced today (Henrywood 1997, 63).

There are a total of 3619 sherds (weighing 29134.3 g) of transfer-printed pottery, the majority in mundane willow pattern style designs, in green red and purple, as well as blue. Over 80% of all transfer printed pottery recovered came from one context, 69.

### 20th-century Wares

There are also six sherds of modern slip-decorated and slip-coated coarse earthenwares (166.7g), 48 sherds of modern yellowwares (669.6g), five sherds of self-coloured (185.1g) and 42 sherds of white-slipped red-bodied wares (840.8g).

### Unglazed Earthenwares

A total of 369 sherds of unglazed pottery were recovered from the site, weighing 7903.4g. These sherds probably come from garden flowerpots of uncertain date. No sugar moulds were identified, although local potteries continued to produce these forms into the second half of the 20th century. Amongst the unglazed pottery sherds were several sherds of chimney pot, heavily internally sooted, from two large contexts 61 and 69.

### Discussion of the pottery evidence

The pottery has the potential to shed light on a number of aspects of the farm and its archaeology; for example, on the formation processes of the deposits, the use of pottery during the post-medieval period, the function of different types of vessel, on the status of the occupants, and the chronology of the settlement. Conversely, analysis of the stratigraphy and associated finds helps to refine the chronology and typology of the pottery and helps our understanding of the nature of the bias of the surviving artefact assemblage.

In practice the assemblage from the Big Lea Green Farm excavations has been difficult to interpret. The shallow depth of the surviving stratigraphy prevented any detailed analysis of sealed, chronologically diverse groups of material. Indeed most of the pottery was collected from very diverse cleaning layers at the base of highly disturbed garden soils, indicative of a farm still in use right up to the demolition of farm buildings at the start of the excavations. However, the pottery presents an interesting if partial picture of the activities of the occupants.

### Status

There are a very large number of the cheaper coarse earthenwares within the assemblage which according to Fisher continued to be bought by 'humble, unsophisticated folk' and which might suggest that the farm was fairly low status (Fisher 1971, 19). Certainly the presence of such large numbers of these earthenware vessels, that must be seen as the cheapest vessels available at that time, alongside the lack of tin-glazed ware, and of white salt-glazed stonewares, would seem to support this view. However, the available evidence may also show a bias in the surviving archaeological record, which does not reflect the real situation and may be more a reflection of rubbish disposal rather than of use. The more expensive fashionable wares would have been more highly prized, more carefully handled and less likely to have been thrown away. Ethnographic evidence from the second half of the 18th century would seem to support this view, showing that vessels described as 'simple wares that filled the kitchen or the milk house, ... rarely reached the table or the parlour' and whilst it was the tablewares upon which social

standing could be judged, the lesser kitchen and dairy wares would not have been valued in the same way (Yentsch 1991, 38).

The lack of white salt-glazed stoneware may also be more of a chronological indicator than an indication of status. There appear to be few contexts from the mid- to late 18th century when white salt glazed stoneware would have been expected to appear in the archaeological record; which might suggest that there was little re-development of the farm during the later 18th century, or that it has been removed in later use.

The stratigraphy and nature of the material recovered from ditch 56 suggest that it was rapidly infilled, probably as a result of a remodelling of the house and garden around the turn of the 18th century. This may be explained by a change in ownership and/or as the result of the introduction of new cookery styles/food ideas. This appears to have included the disposal of useable, complete, earthenware vessels, largely from the kitchen or dairy, but which does not represent all the material in use in the house at the time. The inventory of John Hawarden 'gentleman' of Sutton, Lancashire taken on 10 May 1715 clearly shows the presence of not only tin-glazed ware and treenware (wooden vessels, usually plates, which rarely survive in the archaeological record), but also of a large amount of silver at the house in 1715. This suggests that the lack of the more expensive pottery types within the archaeological record is not as the result of status, but for some other reason, possibly that such vessels were made from other materials.

This would seem to point to the site being of higher status than might be expected from an analysis of the excavated finds alone. It is important, therefore, to look at a much wider picture than that provided purely by the archaeological evidence to assess the status of Big Lea Green Farm at this time.

### **Pottery function**

Moorhouse and Rice discuss in some detail the methods available to assess the uses of pottery (Moorhouse 1983, 182-91; Moorhouse and Slowikowski 1987, 99-102; Rice 1987, 228-30). Sooting is a prime example, occurring when vessels are used over a fire, the soot being deposited along the path of the flame. Moorhouse noted that different intensities of sooting on different parts of the pot reflected various methods of heating (Moorhouse 1983, 182). The Lea Green assemblage includes a number of sooted vessels. Although, many of the vessels are fragmentary and the full area of sooting is sometimes uncertain, the complete vessels do give some impression of how the vessel was used over a fire. The evidence also shows that different vessel forms were used in different ways, which might be expected, hinting at the fact that the vessel form and function are linked.

All the vessels which are recorded as being sooted are unglazed on the exterior. This may suggest that as sooting survives less well on vessels glazed on the exterior the evidence for use has not survived. However, the fabric of the glazed vessels shows no sign of having been heated, whereas the fabric of the sooted, but unglazed, vessels also has blackened exterior margins, showing that the vessel has been used next to heat. This suggests that normally vessels used over a fire would have unglazed exteriors.

There are at least two near-complete dark-glazed cauldrons with an unglazed heavily sooted exterior SF797 and SF825 (Figs.4.7.73-4). The underside of one of the bases is relatively unsooted, with a ring of sooting around the unsooted central area (SF797). Following Rice, this suggests that the vessel was probably used directly in the fire and would have been used for boiling the contents (Rice 1987, 235). Rice also notes that the build up of sooting residue on the pots would insulate the vessel and help to retain heat.

The second vessel is heavily sooted to one side of the base. The rest of the base is oxidised. The sooting is concentrated around the base and the body is less heavily sooted than the first vessel. Whilst this vessel would also have been placed directly in the fire the sooting evidence suggest that it was placed to one side rather than in the centre of the fire.

The pipkin or small pan form in the same fabric and with a dark internal glaze shows no evidence of sooting. This suggests that the vessel was either unused, or used in a manner other than directly over a fire.

There are also seven heavily sooted vessels in a coarse gritty fabric. The gritty ware vessels are thicker than the dark-glazed ware vessels and although they are also less complete, with no surviving bases, they seem to have been used in a similar way. These vessels tend to have patches of thin glaze on the exterior, as well as having an interior coating and are heavily sooted on the exterior up to rim. Although sooting is not present on all the vessels, probably due to the presence of the glaze, several sherds show differential firing in the fabric, which confirms that they have been used over a fire. The coarse gritty fabric provides a thermal shock quality, in a similar way to the thin walls of the dark-glazed vessels, but the gritty fabric also physically weakens the vessels, which may explain the lack of complete forms in this ware.

There is also a smaller jar with an unglazed exterior, which is heavily sooted up the sides and under the rim (SF779, Fig. 4.7.72). No soot is present under the base, although the fabric is discoloured, suggesting use next to a fire. A very similar, if larger, jar shows no evidence of sooting (SF802, Fig. 4.6.68). This may be as a result of having a glazed exterior, although the fabric is evenly

fired throughout, re-enforcing the suggestion that the vessel was not used over a fire. It seems apparent that vessels designed for use as cooking vessels do not have an external glaze.

There are also two near-complete sooted, coarse yellow flatware vessels. The first, a handled vessel, is sooted on the top of, and under, the rim but no sooting is apparent on the rest of the vessel. This suggests that the vessel was either placed directly in the fire with the top of the flames coming close to the top of the vessel or that the base was protected from the fire in some way. Moorhouse notes that some of the vessels from Sandal Castle were sooted only on the outside of the rim and that they were possibly used as an inner vessel, containing the food or ingredients, suspended in boiling water in a larger vessel over a fire (Moorhouse 1983, 183). The presence of a handle on the Lea Green vessel would seem to negate this possibility. The second unhandled vessel is sooted under and over the rim, in a similar way, but is also sooted down the sides and under the base (although this area is patchy). This suggests that the vessel was supported in some way above the flames of the fire and could possibly have been used for simmering or frying (Rice 1987, 235).

There is one other vessel which shows clear evidence of use over a fire, a mottled ware cup. Whilst there is little sooting present, and this may be due to the vessel being glazed both internally and externally, the fabric at the base of the vessel is heavily burnt and partially reduced to a grey colour. This shows that the vessel has been used over a fire, for mulled wine or some other hot drink, and that it was possibly consumed from the same vessel (e.g. Moorhouse 1983, 183).

### Pottery use

The presence of large, what can only be described as 'ceramic cauldrons' suggests pottery vessels for the cooking of stews and the like. Stews were the mainstay of the diet during the late medieval and early post-medieval period for all but the richest members of society (Yentsch 1991, 31, 43). Whilst the evidence is slim the presence of such wares shows that the tradition continued. From around 1650 the recipe books seem to show a trend in cookery away from the use of communal stews towards foods with individual flavours (Yentsch 1991, 29). This stimulated the need for new vessels and implements with which to make and eat the new foods. There is also one salting pan, which suggests the preservation of ham or bacon, and one small pan, or pipkin, possibly used for the heating of liquids, although there is no direct evidence for use, or it may have been used for other purposes.

A comparison with the evidence from the assemblage recovered from excavations at the High Street, Newton-le-Willows is interesting (Speakman in prep.). The

Newton site produced at least seven salting pans, as well as a tripod jar/pipkin. This assemblage very strongly suggests the salting or roasting of meats on site during the 17th century.

The differences between the two groups may be as a result of the nature of the site rather than an indication of differences in pottery use. The number of salting pans hints at commercial urban activity rather than that of a rural domestic setting as at Lea Green. However, the use of 'cauldron-like' ceramic vessels at this time would appear to be a little unusual, especially as there was a shift from pottery to metal vessels, even in lower class households, by the 14th century (Moorhouse 1983, 185).

### Forms absent from the assemblage

Research in the United States has shown a shift from the use of wooden and pewter plates to their ceramic counterparts and a general increase in the number and sizes of these vessels in the American colonies during the 17th and 18th centuries (Yentsch 1991, 25-44). From around this time, there seems to be an increasing emphasis on 'food as social display', resulting in a focus on table settings and increasingly more sophisticated ways to serve food by those who wished to improve their status and were upwardly mobile and who saw it as a means of separating themselves from their social inferiors (Yentsch 1991, 30).

The lack of plates within the assemblage is interesting. This may be further evidence that the material recovered from the ditch was as a result of the clearing out of the kitchen and the more prized tablewares, if the finer ceramic traditions were not included in the clearout. This theory would not only explain the lack of plates but also the lack of the finer ceramics within the assemblage. However, the inventory evidence may suggest a further explanation. Amongst the most common references are to 'treenware' and 'trenchers', usually wooden vessels mainly plates, and also to pewter vessels which do not generally survive in the archaeological record. There are even references to 'cowperie' ware which probably represent wooden cask built vessels (Inventory of John Lea of Sutton, Parish of Prescott 31 January 1623; the Inventory of John Hawarden 'gentleman' of Sutton, Lancashire taken on 10 May 1715 also records 'pewter' vessels; Lancashire Record Office).

Other inventories from south-west Lancashire from the 17th and 18th centuries re-enforce this point (Pope 1982). Whilst many of these inventories represent the belongings of poor potter farmers, it is interesting to note that wooden 'trenchers' were in use in homes of much higher status, for example in the 1737 inventory of Nicholas Blundell of Little Crosby Hall, Sefton.

## **Ditch 56**

During the last few hours of the project, a rapid rescue excavation of the fills of a ditch was undertaken. This was done partly to recover a number of sherds of joining pottery, which had been left in section, and partly to assess whether any more complete or near-complete vessels could be recovered. This rescue work produced a large number of complete or near-complete vessels (context 77). Most of these vessels are made up of large sherds of unbraded pottery, which suggests that they have lain undisturbed since burial and represent a contemporary pottery group, probably from a kitchen or dairy area.

The group consists of a number of contexts linked by an assessment of the cross-contexts joins within the pottery, 55, 77, 79, 95, 101 (a context assigned to a concentration of clay tobacco pipes), 110, 264 and 324. Of these contexts, 77 was assigned to the rapid excavation of finds on the last day, the others are either cleaning layers associated with the area or fills of the ditch.

It is difficult to understand why presumably useable whole pots were discarded in this way. Although the most likely answer is that the disposal of outdated, unfashionable wares coincides with the filling of the ditch, possibly during some major redevelopment of the house and garden, or as a result of a change of ownership or tenancy of the farm.

Similar wholesale disposals of household goods are not unknown. Cumberpatch notes the deliberate disposal of wares 'no longer deemed socially acceptable' from Orgreave Hall (Cumberpatch 2003, 18); Gooder notes the disposal of the 'accumulation of unwanted and outdated pots and glass' by Thomas Barlow on his move out of Temple Balsall Old Hall (Gooder 1984, 151). Barton suggests that 'the contents of an 18th-century well at Bishops Waltham resulted from the clearing of the house by a new owner and the disposal of 'outdated material' (Barton 1969, 166). Grant also describes the discovery of a number of vessels in a ditch at Jamestown, Virginia, 'discarded to make way for more fashionable wares' (Grant 1983, 116).

## **Dating for the backfilling of ditch 56**

The clay tobacco pipes provide independent dating for the backfilling of ditch 56, suggesting a date for deposition between 1680 and 1690 (Higgins, pp. 80-87). This close dating suggests that, as the fabric, form and glaze of the majority of the vessels fit neatly into an 18th-century tradition of pottery making, this tradition was already perfected, and in use, by the last two decades of the 17th century. However, the pottery, supported by a near-complete wine bottle (SF765), suggests a date towards the latter end of the clay pipe date range and into the first two decades of the 18th century.

Negative evidence is also important for dating the ditch. The absence of white salt-glazed stonewares and the finer ceramics produced from about 1720 onwards, re-enforces a date before 1720 (Barker and Holland 1986, 102). This is confirmed by data from the South Castle Street excavations, where no material of this type is found in contexts earlier than the 1726 levelling (Davey and McNeil 1985, 11).

## **The early boundary ditch**

As has been noted elsewhere, over half of all the early pottery recovered from the site came from contexts associated with a series of pits (possibly associated with industrial activities such as leather tanning) and a short length of ditch (166/238).

The northern part of the ditch was sectioned to the north of the stone outhouse buildings. The two fills, 167 and 269, were highly contaminated by 19th- and early 20th-century pottery. This contrasted with the fills of the ditch to the south of the outhouse buildings, which contained predominantly 16th- and 17th-century wares. Drains heavily truncated the area, and it is suggested that these introduced the later pottery into the two ditch fills.

It is interesting that the clay pipes recovered from context 269, the primary fill of the ditch, form a very coherent and tightly dated group, dating between the years 1690 and 1720. This group appears to be slightly later in date than the pipes recovered from ditch 56, which suggests that the remodelling of the site continued into the early 18th century, and that the northern portion of the ditch continued to be cleaned out and used after the rest of it had been backfilled during the 17th century. However, there is no record of the relationship between the pipes and the other later ceramic finds recovered from the same context and this interpretation must be conjectural.

## **Evidence for a mid 19th-century remodelling of the farm: contexts 69, 209 and 165**

Three contexts have been identified as having similar assemblages. All are highly mixed with large groups of later material. However, context 209 has a large quantity of mid-18th-century pottery, including a tiny group of white salt-glazed stoneware. This may suggest that an original drain, possibly dating between 1720 and 1760 may have been replaced during the mid-19th century. Context 165, a rubble spread north of the outside toilet, and context 69, a spread of highly compacted pottery and other waste, are also evidence of a remodelling of the farm during the 1860s.

## **Conclusions**

At the outset of the excavations it had been expected to recover a fairly sizeable assemblage of pottery, with

a wish list, which included well-stratified medieval or early post-medieval deposits to answer many of the continuing ceramic research questions. In the event, the size and quality of the assemblage far exceeded all expectations and is exceptional for the region. The excavations have confirmed the continuous occupation of the site from the late medieval period right through to the present day and although the size and quality of the medieval assemblage was poor, significant groups of pottery from the early post-medieval period and early 18th century were recovered, which will aid the continuing research.

The early post-medieval assemblage is particularly significant and must represent one of the largest groups of 15th- and 16th-century pottery recovered from the region, but, and maybe more importantly, it also represents one of the few assemblages of this material recovered so far from a site of this status and type.

The number of complete or near-complete vessels from the site was unexpected but welcome in terms of the ceramic research of south-west Lancashire. Complete vessels are not common in the region, let alone in the numbers recovered from Lea Green, but it is especially so for a small rural farm where the possibilities for rubbish disposal are much greater than in an urban setting. This group of 17th- and early 18th-century ceramics provides an excellent opportunity to look at a closed group of pottery from this period, to examine the type of vessels in use, and indeed their function, as well as giving us an insight into the people who occupied the site during this period. The assemblage must be seen as one of the most important collections of post-medieval material in the area, placing it in the forefront of regional ceramic research.

### South-west Lancashire Pottery Production

Pottery was manufactured in south-west Lancashire from the late medieval period onwards. A John le Potter of Liverpool who was a witness to a deed of 1305/6 in the town (Brownbill 1913, 2), and occurs as a witness there through the first half of the 14th century. However, apart from some production wasters recovered from excavations in Prescott, no medieval production sites have been found (Holgate 1989, 11-21). The nearest production site in Lancashire was recently discovered near Samlesbury, in the Ribble valley (Wood *et al.* 2008). The earliest documentary evidence shows that the area had become a significant production centre by at least the early 16th century and by the middle of the 17th century, pottery production was widespread (Davey and Morgan 1978, 126-8; Davey 1978b, 2-3; Cleaver 1982; Davey 1989b, 103-5; Davey 1991, 127 and 136; Cowell 2003, 162-3; Chitty 2003, 196-7). However, the markets and transport infrastructure were insufficiently developed to allow many individuals to support themselves wholly from pottery making and production

remained small scale, supplying local needs, as a subsidiary industry to farming (Chitty 1981, 34 and 40; Glynn and Meredith 2003, 209; Moorhouse 1981, 96).

Local documentary research and the analysis of the wider potting economy clearly shows that most of the pottery vessels in use during this early period were produced locally, from locally dug clays, fired using local fuels, and they would not have travelled any great distance. Indeed before the spread of the canal system in the 1760s most places would have had a pottery within a 20-40 mile radius - the distance a man could comfortably walk in a day and for which the pottery could survive the overland jostle by horse (Manby 1965, 105; Brears 1968, 3; Haslam 1984, 17; McCarthy and Brooks 1988, 89; Courtney 1993, 190). This is especially so for the large, coarse, earthenware vessels, whose size and weight made it uneconomical to transport over any great distance (McGarva 2000, 14).

During the later 18th and 19th century there was a shift in emphasis in production from a subsidiary cottage industry, to a specialised factory system. By the late 18th century the cottage potting industry appears to have ceased (Baines 1868, 360; Chitty 1981, 40; McNeil 1989; Chitty 2003, 196-7). Liverpool became a centre for the production of tin-glazed wares, porcelain and the manufacture of other fine-wares until the mid-19th century but there is no indication that the finer types of pottery were ever made in or around St Helens.

The Prescott and St Helens potteries concentrated on the production of cheap lead-glazed earthenwares, suitable for use in the kitchen in the preparation of food and drink (McNeil 1989, 59) and during the 19th century the coarse clays of St Helens were used for the manufacture of industrial wares, such as stoneware sewer pipes to supply the rapid growth in sanitation systems for the northern towns, and other stonewares, alongside other more utilitarian, coarse, earthenwares for the kitchen and dairy (Barker and Harris 1993, 129). However, from the middle of the century the number of working potteries began to decline and by 1900 the Sutton Heath pottery, only a short distance from Big Lea Green Farm, was the largest in the whole of the Sutton, St Helens and Prescott area (Cleaver 1982, 61; Lloyd 1982, 14-27). It was still making coarse earthenware dairy or kitchen vessels in 1925 and continued to produce chimney pots and flowerpots from local clays until it closed in 1969.

## **Clay Tobacco Pipes and Other Pipe-Clay Objects**

*D. A. Higgins*

### **Introduction**

The detailed recording and analysis of this material, which forms the subject of this report, took place between December 2002 and April 2003.

### **Methodology**

The pipe fragments for all the contexts except for a very large 19th-century group (context 69) have been individually examined and details of each fragment logged on an Excel worksheet. The layout of the worksheet has been based on a draft clay tobacco pipe recording system that has been developed at the University of Liverpool (Higgins and Davey 2004). A context summary has also been prepared as a similar Excel worksheet. This gives the overall numbers of fragments and date range for the pipes from each context. Digital copies of both the worksheet and the draft recording system have been provided for the site archive.

Several of the context groups contained more than one similar pipe bowl or marked stem. In order to identify the individual fragments, capital letters have been allocated to these pieces so that they can be cross-referred to the computerised record. These letter codes have been pencilled onto the bowls following the context number. They appear under a reference column (Ref) in the full catalogue as well as in the captions accompanying the figures. An assessment of the likely date of the stem fragments has also been provided in the catalogue. The stem dates should, however, be used with caution since they are much more general and less reliable than the dates that can be determined from bowl fragments.

A number of stamped makers' marks or decorative borders were present within the excavated material. Some of these marks have been added to the national catalogue of pipe stamps that is being compiled by the author. Any 'Die Numbers' quoted in this report refer to the individual dies identified within this national catalogue.

### **The Pipes Themselves**

The excavations produced a total of 781 pieces of pipe, comprising 339 bowl, 409 stem and 33 mouthpiece fragments. The pipes were recovered from 38 excavated contexts, in addition to which there is a group of unstratified finds. Most of these groups contain between just one and eight fragments of pipe (see Appendix B). Although the finds from these smaller groups can be dated, these dates are not as reliable as those produced by the larger groups and the pipe evidence needs to be considered

in conjunction with both the stratigraphic position of the context and any other dating evidence. Apart from the unstratified material, there were just eight larger groups; seven containing between 14 and 38 fragments and one containing 499 fragments. The one large group produced a closely dated and nationally significant group of 19th-century material and is dealt with in detail by itself (context 69; below). The remaining material can be divided into two main categories; the bulk of the material, which dates from the 17th and early 18th centuries, and a smaller group, which comprises odd pieces of later 18th- and 19th-century material.

In the report that follows, the five most significant context groups are first described, followed by a general discussion of the earlier and later pipe evidence. There is then a detailed account of the 19th-century group and, finally, a section dealing with the pipes as archaeological evidence.

### **Significant Context Groups**

The five most significant groups are described and discussed in context number order below. The context number is given first, followed by the number of bowl, stem and mouthpiece fragments recovered from that context, for example, (8/29/1=38) shows that 8 bowl fragments, 29 stem fragments and 1 mouthpiece were recovered from that particular context, giving a total of 38 fragments in all.

**Context 77** (8/29/1=38) This context comprised a baulk across a ditch fill, which also included contexts 95 and 101 (the three ditch contexts are discussed collectively below). This group includes one illegible bowl stamp (Fig. 4.18, no 5), three heel stamps reading IB and a roll-stamp decorated stem (Fig. 4.18, no 13). The fragments in the group are very large (up to 93mm long) and 'fresh' looking, with little sign of abrasion on them. There were many joins between the fragments enabling sections of as much as 182mm in length to be reassembled. Unfortunately the relatively low number of stems (just 3.6 per bowl), and especially mouthpieces (just 1 recovered), meant that it was not possible to reconstruct any complete pipes, which the nature of the group suggests may well have been present originally. The pipe bowls are almost all of *c.* 1660-90 forms, made of an off-white, micaceous fabric that would have been obtained from the local coal-measure deposits. None of these bowls is milled and most have a good burnish on them. The only exception is a single bowl made of a good, white, clay, which was probably imported from south-west England (Fig. 4.20, no 24). This example has a slightly later looking bowl form than the other examples from this context, being of a type that would normally be dated to around 1690-1720. It may well have been made in Chester, where imported fabrics had been used since the early 17th century, but it is not clear if this bowl is intrusive in this context or whether the different looking form simply reflects stylistic differences in contemporary production at Rainford and Chester.

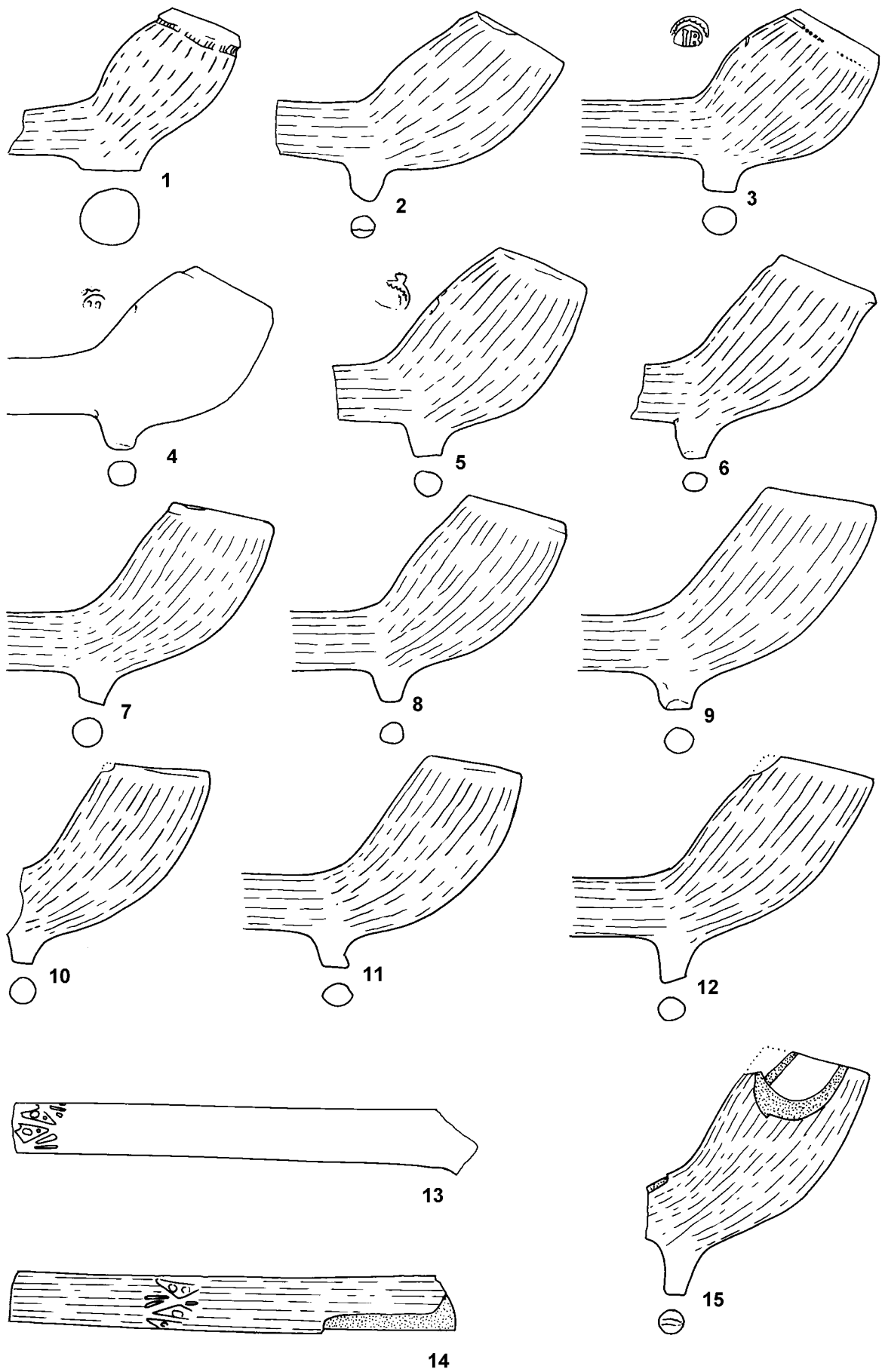


Fig. 4.18: 1-15: Clay tobacco pipes, scale 1:1

Context 77 also produced a stem with a roll-stamped border on it (Fig. 4.18, no 13). The border is crudely executed but it is also made of an imported, non-micaceous fabric. In general terms, this belongs to a series of 'pinnacle and dot' borders that became characteristic of the Chester industry. This particular form, however, is much more crude than the majority of the Chester examples and only one similar and unstratified example was recorded by Rutter and Davey in their study of the Chester industry (1980, Border 29). Similar examples have, however, been noted by the author from Nantwich (NatWest Bank excavations, 1979; NAWST 79 Context 1, SF22) and from excavations at Warrington and Tatton Park in Cheshire (Higgins 1987a, figs 11.4 and 8.14). These relatively crude borders are likely to date from quite early in the local series, which starts around 1690, and they may well have been produced somewhere on the south Lancashire / north Cheshire border, rather than in Chester itself.

In terms of dating context 77, the typologically latest pieces present are the Chester style bowl of *c.* 1690-1720 and the stem border, which is of a similar date. The bulk of the finds, however, are of *c.* 1660-90 styles. It may be that the two later pieces are early examples of their types, perhaps dating to as early as the late 1680s, so that the whole group dates from around 1685-90. Alternatively, these later pieces could represent the final phase of deposition in the ditch, the majority of which had been backfilled in the 1670s or 1680s.

**Context 95** (1/2/0=3) This context was part of the ditch fill (see also contexts 77 and 101), but it only produced three fragments of pipe. There is a joining stem and bowl with the stamped mark GR facing the smoker (Fig. 4.19, no 16; National Catalogue Die Number 1957) and a small piece of burnt stem that dates from *c.* 1750-1850. This stem is much later than any of the other pipes from the ditch and appears to be intrusive in this context.

**Context 101** (16/9/0=25) This context was part of ditch fill 95 that appeared to contain a discrete deposit of material (see also contexts 77 and 95). The pipes from this context comprise the best group of late 17th -century pipes from the site. All of the pipes from this context fall within a date range of *c.* 1660-1700 and they could all have been laid down in a contemporary deposit of *c.* 1680-1690. All but one of the nine stem fragments join with the bowl fragments recovered, producing a number of substantially complete pipes (e.g. Fig. 4.19, nos 17 and 19). Had all the stem and mouthpiece fragments been recovered, it seems highly probable that complete pipes could have been reassembled from this deposit.

The pipes are all made of local micaceous clay and none of the bowls have been milled. Where it is possible to tell, all of the bowls have been burnished. Despite being quite well burnished, as evidenced by the spacing of the individual burnish lines, many of the bowls do not show a

particularly glossy surface. This may be due to a number of factors, such as the initial susceptibility of the clay to being burnished, how dry the pipes were when they were burnished and the temperature at which they were fired. If a pipe is too highly fired it will, apparently, result in the burnish being dulled or burnt off (N. Winter, pers. comm.).

Eleven of the 16 bowls from this context have makers' marks on them. There are two bowl stamps, one probably reading IB (Fig. 4.18, no 4) and the other GR (Fig. 4.19, no 17; National Catalogue Die Number 1958). The remaining nine marks are all heel stamps, all of which read IB (e.g. Fig. 4.19, no 18-20; Fig. 4.20, nos 22 and 23). One of these has a particularly curved stem and the bowl rim has distorted or 'squatted' during firing into an oval shape. These two features clearly suggest that the pipe started to collapse during firing, when it would have been resting upright on its rim with the stem leaning against a central support in the kiln. Despite its deformity, the pipe was considered good enough for sale and has been smoked. Another IB pipe from this context, stamped with the same die and probably from the same mould, shares all of these features, as does one of the examples from context 77 (not illustrated).

The bowl forms from context 101 include two bulbous spur bowls, both with stamped marks facing the smoker (Fig. 4.18, no 4; Fig. 4.19, no 17). The first example is rather small and has an abraded surface so it is not certain whether it was originally burnished or not. This piece is the earliest looking from the group and may be residual. There are five spur bowls with a more slender form, none of which is marked (Fig. 4.18, nos 7-9, 11 and 12) and eight bulbous heel forms, all of which are stamped IB (e.g. Fig. 4.19, nos 18-20). The latest forms present are two tall transitional forms, both of which are also stamped IB (Fig. 4.20, nos 22-23). Unfortunately, there were many makers with the initials IB working in the Rainford area, where these pipes would have been produced, making it impossible to identify the exact manufacturer.

What is significant about this group is the association between mark and bowl form. Both of the bulbous spur forms have bowl stamps, while all of the heel bowls have base stamps. The only unmarked bowls are the five more slender spur forms (Fig. 4.18, nos 7-9, 11 and 12). These are made of the same local fabric and they are contemporary with the other forms from this group. Furthermore, these five bowls each have between 70mm and 131mm of surviving stem, showing that they did not have stem marks. This group supports findings by the author from other parts of the country that specific styles of makers' mark were associated with particular bowl forms. In a sense, the mark is as much a part of the design or style of the pipe as a means of identifying the manufacturer.

**Context 236** (3/3/0=6) Although a small group, these pipes are of interest because they came from the packing

for the widening of the cellar steps. The three bowl fragments fit to make a transitional bowl form of c. 1680-1720 (Fig. 4.18, no 15) and two of the three stems are decorated with a roll-stamped border, one of which is illustrated in Figure 4.18, no 14. These borders appear to be identical to the example from ditch fill 77 (Fig. 4.18, no 13), suggesting that the two deposits are contemporary. If this is then case, then it may be that the alterations to the main house were associated with a wider refurbishment of the grounds, including the filling of the ditch. The pipes from context 236 are also important because no bowl form has ever been found attached to one of these crude stem borders. Although neither of the stems actually joins the bowl, this group creates an association between the borders and the bowl form that may well indicate the style being used. Both the bowl and stems are made of imported clays, confirming that either these pipes were made away from Rainford or that they represent the first moves towards the use of imported clays at that centre. The bowl form supports a late 17th- or early 18th-century date for these stem borders and, given the similarity with the material from the ditch fills, it seems likely that the refurbishment of the cellar steps took place in about 1690.

**Context 269** (5/18/0=23) This group represents the primary fill of ditch 166. It is a very coherent looking group with all of the bowl forms dating from c. 1690-1720. Two of the bowl fragments join so that four different bowls are represented in this group, the three most complete of which are illustrated in Figure 4.20, nos 25, 28 and 29. The fourth pipe is just represented by a spur fragment, very similar to that illustrated in Figure 4.20, no 25. There are numerous cross-joins amongst the 18 stems recovered from this context. Six of the stems join to make up a section of 311mm in length and another three to make up a section of 253mm. The extrapolated taper of the longest stem shows that these pipes would have been at least 340mm (13.25") in length and more likely around 390mm (15.25"). These very substantial portions of pipe not only provide an indication of the stem lengths at the time but also show that fresh domestic waste was being discarded into the ditch.

In contrast with the other ditch fills discussed above (contexts 77/95/101) all of the bowl fragments from context 269 are made of fine, imported fabrics, as are all but five of the stem fragments. Three of these join to make the shorter of the two 'long' stem sections and the other two pieces come from at least one other pipe. This shows that pipes made of local fabrics were still in use but that pipes made of imported fabrics were rapidly replacing them. Burnishing was still in common use with both of the spur fragments and all but four of the stems being burnished. There are two stems of local fabric and two of imported that are not burnished, in addition to which neither of the heel bowls is burnished (Fig. 4.20, nos 28 and 29). Overall 17 of the 23 fragments are burnished (74%).

## The 17th- and Early 18th-Century Pipes

With the exception of one large 19th-century group, the majority of the pipes recovered from this site date from the 17th or early 18th century. There are quite a number of stems of general 17th-century type but the earliest bowl fragments only date from c. 1640-60, for example, Figure 4.18, no 1, and it is only from the third quarter of the century that more forms are represented (e.g. Fig. 4.18, nos 2 and 3). This is perhaps surprising given the proximity of Rainford, which established itself as an important pipemaking centre early in the 17th century. The 17th-century pipe evidence from this site is, however, generally rather scrappy and, were it not for the ditch fills, it would be hard to say much about the pattern of pipe use on the site.

A total of 23 makers' stamps belonging to this period were recovered. There are 16 stamps reading IB, another that probably reads IB, two reading GR, three decorative stem borders and one illegible mark. These marks can be divided into three types, as follows: -

*Bowl Stamps* There are six bowl stamps, all of which are of a distinctive crescent type and placed on spur bowls, facing the smoker. The crescent mark was characteristic of the Rainford industry, although it was also used in surrounding centres, such as Liverpool. Two of these read IB (contexts 110 and 120; Fig. 4.18, no 3), one probably reads IB (context 101; Fig. 4.18, no 4); two read GR (contexts 95 and 101, Fig. 4.19, nos 16 and 17) and one is uncertain (context 77, Fig. 4.18, no 5), but most likely to be another IB mark. There were numerous makers with the initials IB working in the Rainford area, which makes attribution of these marks to a specific maker impossible until individual dies can be tied to specific kiln sites. The GR marks, however, are less usual. Although the author has recorded GR marks from north Lancashire and Cumbria, especially around the Kendal area, these are all heel marks and of earlier date than the Big Lea Green examples. This makes it unlikely that the same maker is represented by the two sets of marks. Furthermore, extensive field collection in the immediate Rainford area has failed to produce any GR marks like the Big Lea Green examples (Ron Dagnall, pers. comm.), and so these pipes are unlikely to come from that production centre. They are, however, of a local style and made of local coal-measure clay. As such, they almost certainly represent a previously unrecorded local maker, working near to the Big Lea Green site, but probably not in the parish of Rainford itself.

*Heel Stamps* There are 14 heel stamps, all of which read IB and most of which come from the 1680s ditch fill (3 from context 77 and 9 from context 101; Fig. 4.19, nos 18-20; Fig. 4.20, nos 22 and 23). In addition, there is one from context 204, 112 and one from context 230 (Fig. 4.19, no 21). As with the IB bowl marks, these are all of Rainford types, but cannot be attributed to a specific maker,

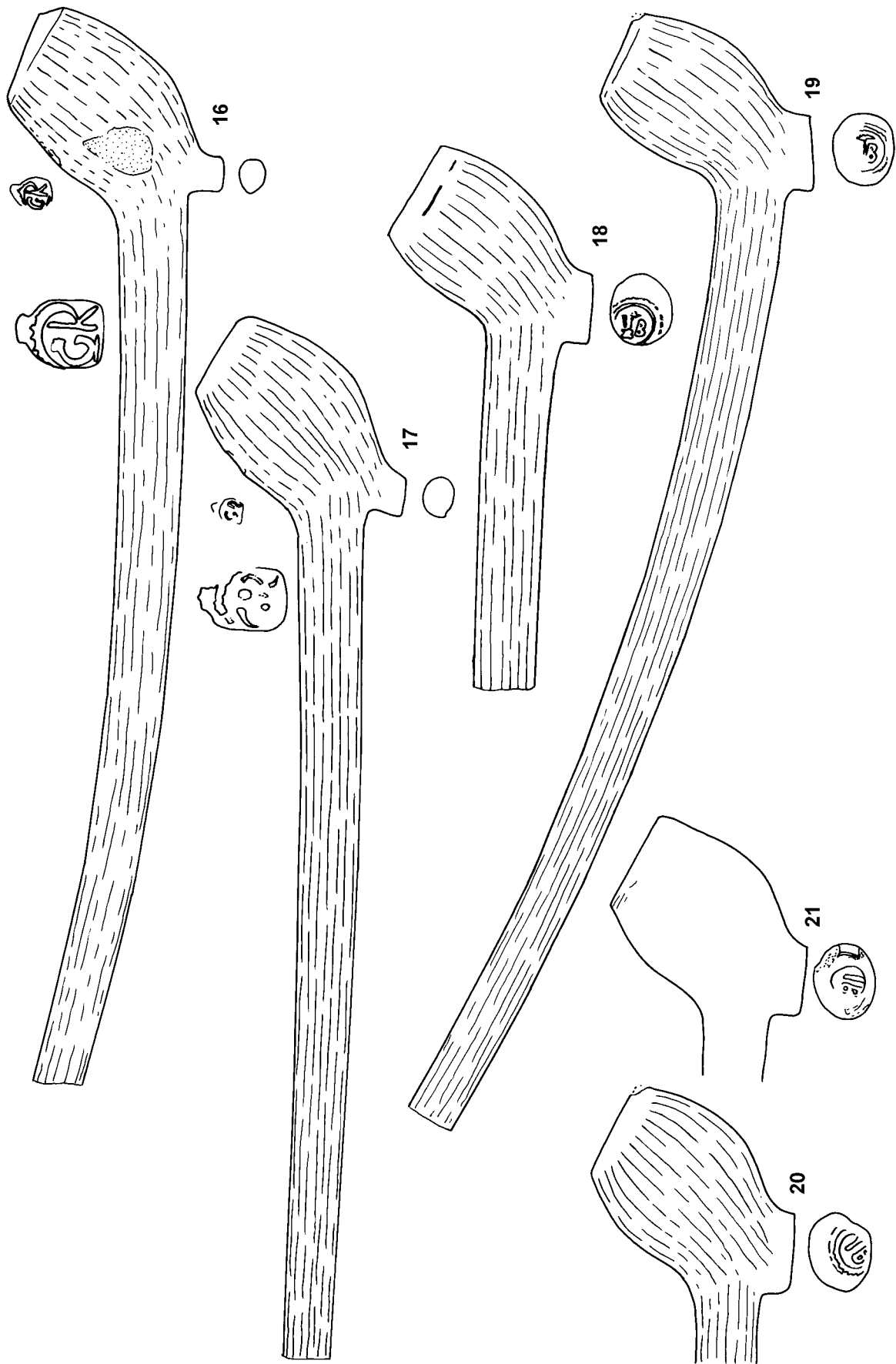


Fig. 4.19: 16-21 Clay tobacco pipes, scale 1:1, with the stamp details for 16 and 17 at 2:1

although the mould and die duplicates discussed below suggest that most of these came from the same workshop.

*Stem Borders* There are three stem borders, one from context 77 (Fig. 4.18, no 13) and two from context 236 (Fig. 4.18, no 14). The borders are crudely cut and rather poorly impressed, making comparison difficult, but they were probably all made using the same die. In two of the three examples the stem has also been burnished. All three borders occur on pipes made of an imported clay and they probably date from the 1680s, although of a style that would have been used into the early 18th century, most likely with a bowl form such as that shown in Figure 4.18, no 15. Similar stem borders have been recorded from Nantwich and Warrington, suggesting production in this area as opposed to Chester, where only one unstratified example is known.

By far the most significant group of early material is that recovered from three related ditch fills, contexts 77, 95 and 101 (Fig. 2.15). These three fills produced a total of 66 fragments of pipe, comprising 25 bowl, 40 stems and one mouthpiece. These deposits contained contemporary looking groups with many joining fragments. Had a more comprehensive sample of stems and mouthpieces been recovered it seems highly probable that complete pipes could have been reassembled. This ditch group appears to be both freshly deposited and coherent. It is a particularly important group since it fills a gap in the later 17th century where good excavated deposits have not been previously recovered. The substantial pipe assemblage from Bewsey Old Hall, for example, is weak in bowls of this period (Higgins 2011).

The pipes from the three ditch contexts are illustrated in Figure 4.18, nos 4-13, Figure 4.19, nos 16-20 and Figure 4.20, nos 22-24. The breaks in this sequence (Fig. 4.18, nos 14-15 and Fig. 4.19, no 21) are contemporary forms from other contexts so, in effect, the whole sequence (nos 4-24) can be taken to represent the forms current when the ditch was being filled. The majority of these bowl forms would normally be dated to c. 1660-90 but with the latest examples dating to c. 1690-1720. Given the fresh nature of these pipes and their association in a single ditch, it seems most likely that they form a contemporary group, most likely deposited during the 1680s.

The 1680s ditch group suggests that five main styles of pipe were in use at this time. There are 25 different bowls in the pit group, which can be divided up as follows: -

*Bulbous Spur Bowls* This is a relatively small group, represented by four examples (16% of the bowls from this group). All of these examples have bowl stamps facing the smoker (Fig. 4.18, nos 4, 5; Fig. 4.19, nos 16 and 17). Fig. 4.18, no 4 seems unusually small for this period, but may be a late example of its type, produced from an old mould.

*Slender Spur Bowls* There are eight examples of more

slender spur forms (32% of the group), none of which is marked. These represent a number of different mould types, showing that this was a popular style at the time as opposed to the group simply reflecting a single batch of pipes to the site. Examples of the bowl forms are given in Fig. 4.18, nos 6-12. A decorative stem border from the ditch (Fig. 4.18, no 13) would probably have been used in conjunction with this bowl form.

*Bulbous Heel Forms* There are ten examples of this type (40% of the group), making this the most common form represented (e.g. Fig. 4.19, nos 18-20). All of the examples have IB stamps on the heel. The stamps are often poorly applied and the clay is quite coarse, making it hard to identify individual mould or die types for these pipes. It does appear, however, that this group can be divided into just two mould types and two die types. There are seven slightly smaller bowls, most of which are certainly from the same mould and the remainder probably so. Four of the bowls have straight stems (Fig. 4.19, no 18) but the remaining three all have markedly curved stems, the most complete of which is shown in Figure 4.19, no 19. These three bowls also show signs of 'squatting', where the bowl mouth has started to deform during firing. At least some and probably all of the stamps on these seven heels are also the same. This particular die has a lop-sided motif between the initials, a crescent shape beneath them and striations across the field behind the lettering. In contrast, at least two and probably all three of the other bulbous heel forms come from another mould (Fig. 4.19, no 20). These bowls also have a different mark with a much heavier border and simple initials, without other motifs. The duplication of these bowl forms and marks suggests that the IB pipes were not only produced locally but also that they formed a regular supply source for the occupants at Big Lea Green.

*Transitional Heel Forms* There are two transitional heel forms, representing 8% of this group (Fig. 4.20, no 22 and 23). Both are from different moulds and both have different IB marks on them.

*Transitional Spur Form* There is just one transitional spur form, representing 4% of the ditch group (Fig. 4.20, no 24). This is the only bowl in the group to be made of an imported fabric and the only one to have a simple cut rim. It is also only one of two that is definitely not burnished, the other example being one of the small bulbous heel forms, of the same form as Figure 4.19, nos 18 and 19.

This group of pipes does much to characterise local production at this date. The most common forms are bulbous bowls, which occur as either heel or spur varieties. Some of these are very similar to their Yorkshire counterparts (White 2002) while others are of distinctive local styles. With one exception the bowls are entirely made of local clays and none of them is milled. The stems were generally straight and the surviving fragments suggest a general length of around 12"-13" (300mm-

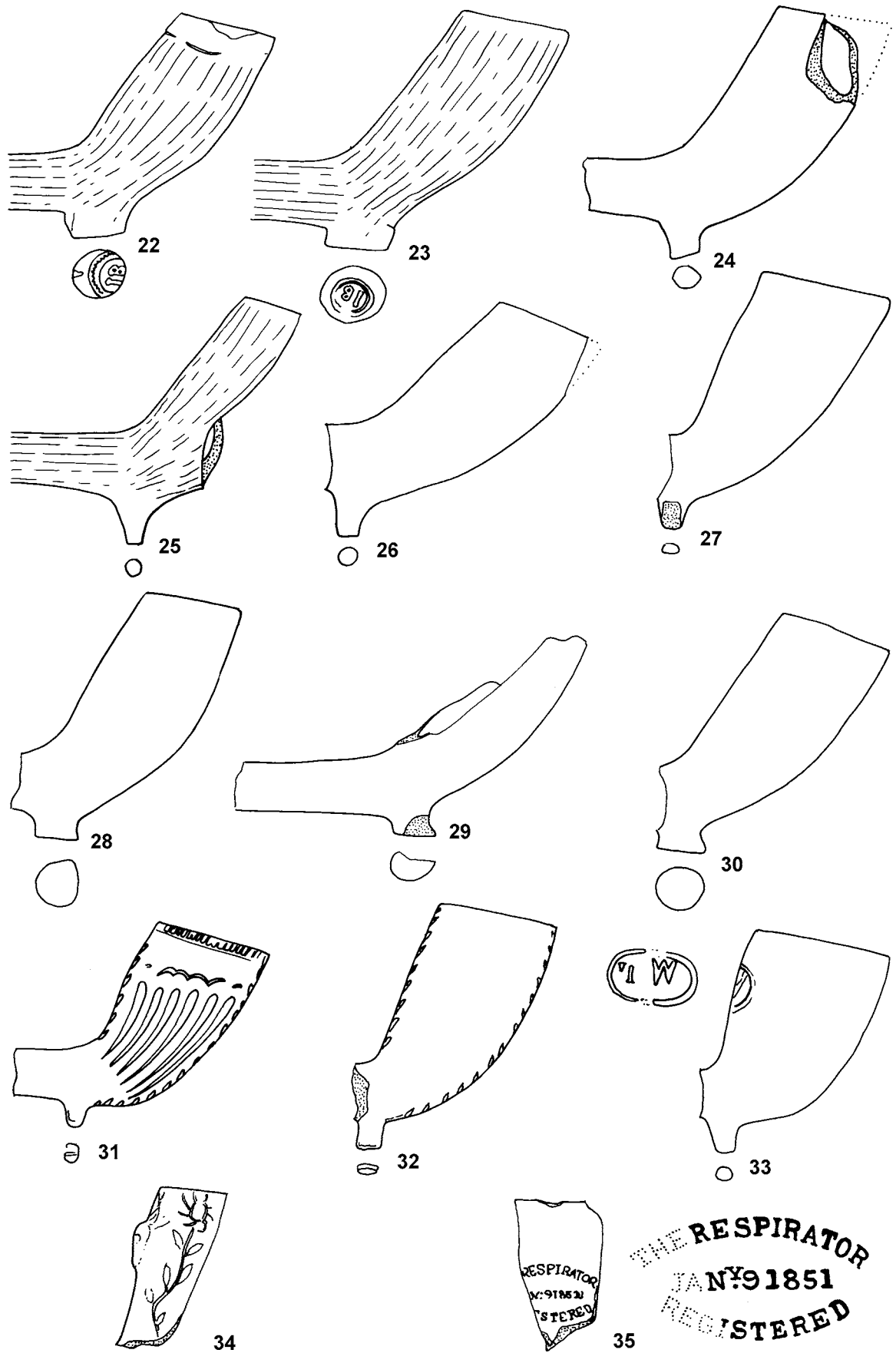


Fig. 4.20: 22-35 Clay tobacco pipes, scale 1:1 , with the stamp detail for 35 at 2:1

330mm) for these pipes. In at least four instances, pipes were sold with markedly curved stems. The curved stems are associated with ‘squatting’ of the bowls and so can be seen as an accidental occurrence rather than an intentional feature. Nevertheless, all four examples show clear signs of having been smoked. Furthermore, these four pipes were made by two different makers, showing that the selling of ‘seconds’ was a regular and acceptable practice at this time. The appearance of transitional bowl forms and a decorative stem border shows that new designs were being introduced alongside the established ones, while the range of bowl forms shows that there was a degree of personal choice in the style of pipe that an individual could select. Finally, there is a clear link between the position and style of the mark and the bowl form that it was used with. Heel bowls had circular base stamps; bulbous spur forms had crescent shaped bowl marks and the slender spur bowls were not marked at all.

The 1680s ditch group discussed above (contexts 77/95/101) contrasts well with the context 269 ditch group, which only dates from a few years later, around 1690-1720. By this time, however, the bowls were all made of imported clays and only two of the four were burnished. The rims were cut rather than being bottered (smoothed with a finishing tool after moulding) and none of the bowls was marked. Finally, the bowl forms are now of a style that would be familiar in Chester as opposed to the earlier forms, which were characteristic of the local Rainford industry. The pipes may still have been made locally in Rainford, but the forms and fabrics now follow the Chester fashions rather than setting the trends themselves.

These two ditch groups also produced some evidence for stem length although, unfortunately, not enough stem or mouthpiece fragments were collected to allow the recovery of complete pipes. Only two sites from the North West have produced complete pipes, both of them early 17th-century kiln sites (Higgins 1982 and Chester, unpublished). No complete pipes of later 17th- or early 18th-century date are known from this region, which is why the Big Lea Green evidence is so important. The extrapolated tapers of large fragments recovered from the 1680s ditch group suggests stem lengths in the region of 12”-13” (300mm-330mm) and the c. 1690-1720 ditch group suggests stems in the region of 13.25”-15.25” (340mm-390mm). These lengths fit with the national trend for a steady increase in average length during this period (Higgins 1987b, 64). Complete examples from the North West are needed to be sure of the exact lengths and to explore the relationship between bowl form and stem length.

Although there are other odd examples of early 18th-century forms, for example Fig. 4.20, no 30, there are no discernible mid- to late 18th-century forms amongst the excavated assemblage. There appears to have either been a change in waste deposition across the excavated area or a change in smoking habits for about a century before pipe evidence picks up again during the 19th century.

## The Later 18th- and 19th-Century Pipes

As with the earlier pipes, the later material is generally rather scrappy, save for the large group from context 69, which is discussed separately below. The other 19th-century finds tend to come from mixed or unstratified deposits. The finds include a complete plain spur bowl dating from the first half of the 19th century (Fig. 4.20, no 27) and a number of decorated pieces. The decorated fragments are generally of typical local styles, for example the fluted bowl (Fig. 4.20, no 31) or the fragment with a stag’s head facing the smoker and floral design on the bowl (Fig. 4.20, no 34). Some of the designs are of simple types that are found all over England, such as the bowl with leaf decorated seams (Fig. 4.20, no 32) or the slightly later example of a TW pipe (Fig. 4.20, no 33). This second example is a standard pattern type and the moulded initials TW are part of the design, not a maker’s mark.

One of the most interesting 19th-century fragments is an unstratified find from Area XVIII (SF897). This is a small and abraded bowl fragment with quite thick walls and an incuse stamp with serif lettering facing the smoker (Fig. 4.20, no 35). Small sections of the rim survive in an abraded condition. This was probably plain and finished with a simple cut. The stamp has serif lettering in three lines, the top and bottom of which are curved in opposite directions to form an oval; there is no border. The left hand side of the stamp is missing but the text probably originally read ‘[THE] RESPIRATOR / [JA]NY 9 1851 / [REGI]STERED’ (National Catalogue Die Number 1762).

This is the earliest known registration for a pipe design and, until this piece was found, no example was known to survive. The design was a non-ornamental registration (No 2624) made by Edward Upward, builder, of 51 South Moulton Street, London, W1, on 9 January 1851. The registration was for ‘The Respirator Pipe’ – a long clay pipe with an extra bore hole through the stem and parallel with the normal stem bore. This extended to the far side of the bowl, so as ‘to enable the smoker to inhale atmospheric air through the mouth at each respiration without depending entirely upon the nostrils for the inflation of the lungs while smoking, at the same time it counteracts the heating effects of the smoke in the mouth or tongue’ (Hammond, 1985, 65). Although very fragmentary, this example not only shows that the design went into production but also that it was widely marketed across the country. It is not known how successful the design was, but these designs often only enjoyed short-lived popularity and this example seems most likely to date from the 1850s.

There were 51 marked pipes amongst the later material, all but six of which were recovered from context 69 (see below). The other examples were mixed in nature, comprising one stamped bowl mark, one moulded bowl

mark, one moulded stem mark and three moulded spur marks, all of which were symbols. The bowl marks (the unstratified 'Respirator' mark and the TW mark from context 110) have been mentioned above (Fig. 4.20, nos 33 and 35). The stem lettering comprised part of an incuse moulded, sans-serif, mark that would originally have read 'MILLER / LIVERPOOL' from context 110 (similar to Fig. 4.21, nos 46 and 47 in style). The spur marks comprised a 'flower' mark from context 120 made in the same mould as an example from context 69 (Fig. 4.23, no 91); a ring mark on a plain bowl from context 110 (similar to Fig. 4.23, no 87-89) and a double ring mark from context 165. The double ring was of the type shown in Fig. 4.23, no 90 but occurred on a badly burnt bowl fragment with fluted decoration and, possibly, leaf decorated seams as well (not illustrated).

### Context 69

This was by far the largest group of pipes from the site and one that is of considerable interest for two reasons, first, because of the number and range of the pipes present and, second, because of the apparently close dating of this group to the early 1860s. This group not only provides a sample of pipes from a period that is rarely represented in controlled archaeological excavations but also an important sample of pipes from the Liverpool area, where very little work has been done on 19th-century pipe groups. Liverpool was one of the principal pipemaking centres in the country with a substantial export trade. Despite this, Liverpool products are poorly understood and very few of the pipes produced there have ever been published.

The group itself consists of 499 fragments of pipe, comprising 268 bowl, 205 stem and 26 mouthpiece fragments. This appears to be a fairly good sample, since many quite small bowl fragments have been recovered. Despite this, the relatively low number of stems, and in particular mouthpieces, does suggest a certain bias in the collection of this sample. At least 129 pipes are represented by this sample, based on the minimum number of bowl/stem junctions present, each of which had at least part of the stem bore surviving. This figure has been used in the following sections when discussing the relative frequency with which particular bowl forms occur.

Given the consistent nature of this group, an attempt was made to reconstruct the fragments, using the methodology outlined by Higgins (1982). There were two reasons for this; first to try and establish which bowl forms or designs were associated with the named stems, especially the Liverpool ones, and, second, to try and recover examples of complete pipes. Unfortunately, a relatively low number of joins were present amongst the fragments and most of the joins that were found were fresh breaks resulting from the recovery of the pipes. Although some useful joins were found, neither of the primary objectives was achieved.

This particular group of pipes was recovered from a deposit containing large amounts of glass, ceramics and other household waste, so it is clearly domestic in nature. This context group produced four fragments of burnished 17th-century stem, which are clearly residual. There may be one or two pieces of 18th-century stem amongst the group, but these are hard to distinguish from 19th-century material. Given the overwhelmingly consistent 19th-century date of the more diagnostic fragments it appears that any residual material only forms a very small proportion of this group.

The domestic refuse dump itself can be closely dated by the makers' marks on the pipes, most of which point to a fairly brief period of deposition for this material. At least two Liverpool firms are represented amongst the marked pipes, with four examples from each firm being represented. The author has recently undertaken a systematic search of all the Liverpool trade directories to extract pipemakers, which allows these marks to be accurately dated for the first time. The first firm, Jones and Harris, occurs in the directories from 1859-1898 while the second, Miller, only appears from 1860-1875, thus narrowing the likely date of the deposit to just 15 years. The published dates for the pipemakers from some of the other centres represented in context 69 support the dates provided by the Miller pipes and help refine this date even further. The London directories only list Airth & Co, whose mark occurs in this deposit, in 1864. There is also a Posener mark from London with their Rupert Street address, which is only documented in 1862 (Hammond, *in litt*, 31.3.03). The Stewart pipes from Glasgow provide another good date, since this maker only appears in published lists from 1856-61. These dates cluster remarkably tightly and strongly suggest that the material from context 69 was being discarded c. 1860-65. All of the other marked pipes from this context would fit with an early 1860s date range and so, in the following description and discussion, a date of c. 1860-65 can be assumed for all of the 19th-century material from this deposit.

### The Marked Pipes

A total of 45 different slogans, makers' marks or symbols were recovered from this group. These are listed in Table 4.3, followed by a more detailed description of the forms for which additional information or good dating evidence is available. In the table the type of mark (IS = incuse-stamped; RS = relief-stamped; IM = incuse-moulded; RM = relief-moulded) and its position on the pipe (BF = bowl facing the smoker; SX = across the stem; SS = sides of the spur; SH = sides of the heel; SL = along the stem sides) are given, followed by the number of examples recovered and the figure number(s) of any illustrated examples.

Some of these marks are just pattern names, for example, 'Garibaldi Pipe' or 'Burns Cutty', while others

Mark	Type	Pos	No	Fig. no	Comments
<i>Bowl Stamps</i>					
AIRTH & CO / AC / LONDON	IS	BF	1	36	Only recorded as pipemakers at Stratford, London, in 1864.
CORK	IS	BF	1	41	Part of an Irish style bowl with milled rim. 'CORK' is a pattern or style name.
GA[RIBALDI] / PIP[E]	IS	BF	1	38	'Garibaldi' was a pattern name for a particular pipe design.
L (crowned)	RS	BF	1	40	Irish style bowl with milled rim. Heel missing.
J.LEAMY / WATERFORD	IS	BF	1	39	Irish pipe.
Philos / Paris / Depose	IS	SX	1	43	Burnished French stem with plain bowl.
POSENER & Co / RUPERT ...	IS	BF	1	37	London manufacturer, only recorded at Rupert Street in 1862.
...ON? / ...E	IS	BF	1	42	Damaged mark – reading uncertain.
??	IS	BF	1		Irish style bowl with milled rim – probably 'DUBLIN' or similar stamp.
<i>Spur Marks</i>					
KK	RM	SS	1	56	Unusual mark with initials vertically and upside-down on the spur.
OO	RM	SS	9	86-9	Symbol marks; 8 on plain bowls and 1 on a bowl with leaf decorated seams.
Ring and dot	RM	SS	2	73, 90	Symbol mark; one on a plain bowl and one on an acorn bowl with leaf seams.
Flower and dot	RM	SH	2	91	Symbol marks on a plain bowl type (same mould).
<i>Stem Marks</i>					
BURNS CUTTY. / BURNS CUTTY.	IM	SL	1	51	Burns Cutty is a pattern name.
JONES & HARRIS / LIVERPOOL	IM	SL	4	44-5	Firm recorded 1859-1898.
McDOUGALL / GLASGOW	IM	SL	6	53-5	2 red clay; 4 white clay. Firm recorded 1846-1967 (Liverpool offices 1878-92+).
McDOUGALL GLASGOW / BURNS CUTTY PIPE	IM	SL	1	52	Burns Cutty is a pattern name. Firm dates as above.
MILLER / LIVERPOOL	IM	SL	4	46-7	Firm recorded 1860-1875.
STEWART / GLASGOW	IM	SL	2	48	Firm recorded 1856-1861.
STEWART	IM	SL	4	59-50	Seems to have lettering one side only.

Table 4.3: Marked tobacco pipes of c. 1860-65 from context 69 at Lea Green

were part of the particular design or style of the pipe. Irish style pipes were particularly popular at this period and stamps such as the crowned L or 'CORK' were added to certain of these styles, regardless of who made them. Many of the pipe manufacturers in north-west England and Scotland produced these Irish style pipes while others, such as the J Leamy pipe from Waterford, are actual Irish imports. This makes it hard to source individual examples that just have generic Irish style motifs on them. In contrast, some of the pipes with makers' marks on them can be well dated and details of the best documented are given below: -

**Jones & Harris** Four stems with the incuse-moulded, sans-serif, lettering 'JONES & HARRIS / LIVERPOOL' along the sides of the stem were recovered (for example, Fig. 4.21, nos 44 and 45). None of these examples had any border around the lettering, which was generally rather lightly cut, making the marks a little faint and hard to read. Jones and Harris were one of the most

important pipe manufacturers in Liverpool during the 19th century. Despite this, very few of the firm's products have ever been recorded and the company history has never been documented in any detail.

With the aid of trade directories, the origins of the firm can be traced back to the Morgan family, who were prominent pipemakers in Liverpool during the late 18th and early 19th centuries, with at least a dozen family members being recorded as pipemakers in the trade directories. William Morgan I (working c. 1767-1800) is the earliest member of the family recorded in Liverpool and he established his third successive workshop in a court on the north-east side of Gradwell Street, just to the south-west of Wolstenhome Square, in 1794. He is last listed in Gradwell Street in 1800 after which the business appears to pass to his son, William II, and then to Elizabeth Morgan following William II's death in 1816. Elizabeth operated from Gradwell Street until at least 1823 after which she moved to Sir Thomas' Buildings, where she is

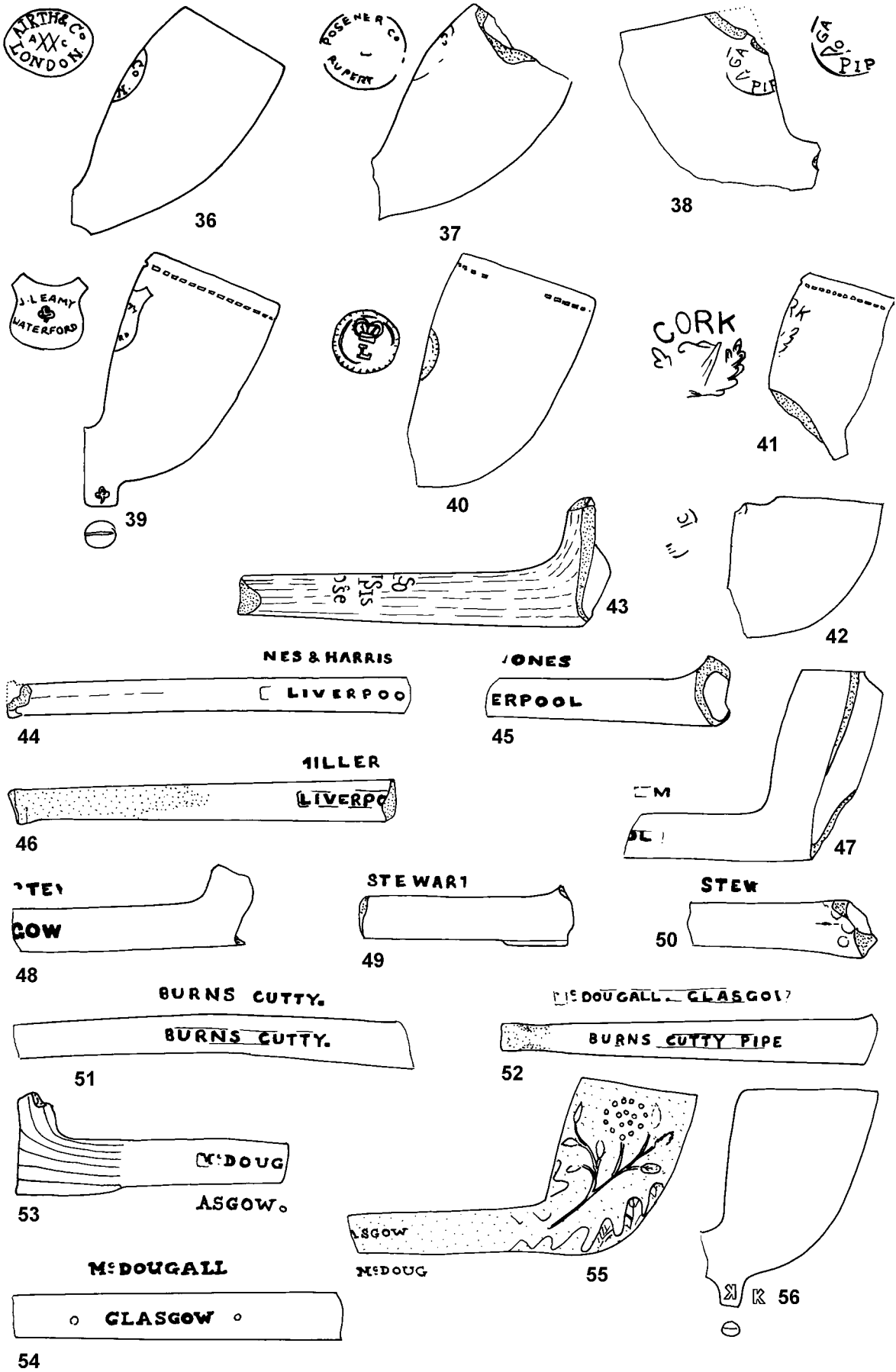


Fig. 4.21: 36-56: Clay tobacco pipes, scale 1:1

recorded from 1825 until 1839, the last year in which any of the Morgans are independently listed as pipe makers in Liverpool.

In about 1834 it is clear that John Jones went into partnership with the Morgan family since ‘Morgan & Jones’ are listed at 6 Beckwith Street in a trade directory of that year. This is the first year in which the Beckwith Street address is recorded as a pipe manufactory and so it seems likely that a new workshop had been established. The same partnership was listed again in 1835 but, by 1837, John Jones alone is recorded in Beckwith Street. The business must have grown rapidly since, by 1841, Jones had addresses in Beckwith Street, Burgess Street and at Sir Thomas’ Buildings. Sir Thomas’ Buildings is the address where Elizabeth Morgan was last recorded in 1839, and suggests that by this date Jones had completely taken over the main part of the Morgan business, which had dominated the Liverpool pipe trade for the previous 70 years. The Burgess Street address does not appear after 1845 but the other two addresses continued in use throughout the 1840s and 1850s.

In the 1851 Census, John is listed as aged 47 (born in Liverpool *c.* 1804), and was living at 49 Sir Thomas’ Buildings, where he was described as a master clay pipe maker, employing 35 men, 20 women and 10 boys. This is a huge workforce and must have made his works one of the largest anywhere in the country at this time. Also living with him were his second wife, Mary Ann (born Liverpool, *c.* 1821); an aunt called Elizabeth Harris who worked as a mid-wife (born Heath Molton, Devon, *c.* 1785), and Margaret Kelley, a 23 year old house servant from Douglas on the Isle of Man.

John had previously been married to an Ann (born Lancashire, *c.* 1811), with whom he had had a son, John George Jones, who was born in Liverpool in about 1827 or 1828. John George was living with his father and recorded as a pipe maker, aged 14, in the 1841 Census and so it is clear that he grew up in the family business. By 1851 he had married Jane Hughes, a shoemaker’s daughter, and had his own house on Brownlow Hill. It is not known exactly when he took over from his father, but he is specifically listed as “John George Jones” in the 1857 directory, when he is listed at the same addresses as his father had been, *i.e.*, Beckworth Street and Sir Thomas’ Buildings.

Unfortunately, the success of the family business was cut short by John George’s untimely death in 1857, as reported in the *Liverpool Mercury* (Wednesday, 11 March 1857; Issue 2954); “March 9, at his residence, Sir Thomas’s-buildings aged 29, Mr. John George Jones, tobacco pipe manufacturer, much regretted by all who knew him”. The directory evidence, together with this report, suggests that his father had already died by this date and that John George had moved into his house

in Sir Thomas’s Buildings. Following his death, the business was rapidly put up for sale, as is shown by an advertisement in the *Liverpool Mercury* just over a week later (Friday, 20 March 1857; Issue 2958):

‘To TOBACCO PIPE MANUFACTURERS AND OTHERS. – TO BE SOLD, by Private Treaty, by order of the Executor and Executrix, the STOCK and GOODWILL of the old-established BUSINESS of the late JOHN GEORGE JONES, situated in Beckwith-street, Park-lane. – Every information will be given by making application at 12, Beckwith-street.’

It is not clear exactly what the outcome of this sale was since Jane Jones, John George’s widow, is listed as a pipe manufacturer at 49 Sir Thomas’s Buildings in Gore’s directories of 1859, 1860 and 1862, which might suggest that she had retained the business. Somewhat confusingly, the same three directories also list ‘Jones & Harris’ as pipe manufacturers at 49 Sir Thomas’s Buildings and 8 Beckwith Street and they also list David Harris as a pipe maker at 49 Sir Thomas’s Buildings. This duplication of names and addresses is explained by the marriage at St Nicholas’ Church on 9 September 1860 of David Harris, bachelor, pipe maker, and Jane Jones, widow. While the precise details of the arrangement are unclear, it is evident that David Harris, 10 years Jane’s junior, had entered into some sort of partnership that gave rise to the firm of Jones & Harris as well as to a marriage.

David Harris had been born in Liverpool in about 1836 but grew up in Wales, where his Welsh father, also called David, was recorded in 1851 as a boot maker employing 15 men and four women in Carnarvon. At that date the 15 year old David was living at home and working as a shoemaker, presumably for his father. How he came to return to Liverpool and change trades to that of a pipe maker is not known, although there may have been a link in that Jane Jones’s father, John Hughes, was also a shoemaker and Jane had been born in Liverpool. In the 1861 census David, age 26 (born Liverpool *c.* 1835) is recorded as a tobacco pipe manufacturer at 49 Sir Thomas Street, with wife Jane, age 36 (born Liverpool *c.* 1825), his 16 year old sister Mary Harris (born Carnarvon *c.* 1845) and a boarder, John Hughes, also 16 and from Carnarvon.

The new start for the family did not last long since Jane died in 1862, as reported in the *Liverpool Mercury* (Friday 18 July 1862, Issue 4504), “HARRIS – July 7, at her residence, 5 Belmont-view, West Derby-road, Jane, wife of Mr. David Harris, of the firm of Jones and Harris, tobacco pipe manufacturers, Sir Thomas’s-buildings.” Within a year there was further misfortune for David when he found himself in court accused of robbery from an unoccupied house. The case was reported in the *Liverpool Mercury* for Monday the 18th May 1863 (Issue 4764) and provides an interesting

insight into what had happened to the business:

‘LIVERPOOL POLICE COURT – SATURDAY, MAY 16. BEFORE MESSRS. LAMPORT AND HOUGHTON . . . ALLEGED ROBBERY FROM AN UNOCCUPIED HOUSE. – David Harris and James Cowley were brought up on the charge of having stolen some doors and fire grates from an unoccupied house in Sir Thomas’s-buildings, Dale-street, the property of the Corporation of Liverpool. It appeared from the evidence given that Harris had formerly carried on the business of a pipe manufacturer upon the premises in question, but in consequence of the house with others adjoining being about to be pulled down for town improvements he had received notice to quit by the 1<sup>st</sup> of this month, and had left accordingly. On Friday he and the man Cowley were detected by Mr. Swallow, assistant to the borough surveyor, in the act of taking away the doors, fire grates, and an oven from the house. They had a shandry at the front, and in it were five grates, an oven, and two doors, with six others outside the house ready for loading. There was not a door or a grate left throughout the house. Mr. Swallow told Harris he must not take the property away without the permission of the surveyor. He replied that he had the surveyor’s permission to do so. Mr. Swallow remarked that if he (Harris) had got any authority from the surveyor, he (Mr. Swallow) would have received instructions to that effect. The prisoner told him he would take away the doors in spite of him, and whilst Mr. Swallow went for a police officer the articles were taken away, and had not been recovered. – Mr. Weightman, the surveyor, proved that he had not given Harris permission to take the doors and grates from the house. – It was shown that the man Cowley had merely acted as the servant of Harris. – Mr. Black, in addressing the bench on behalf of the latter, said if he went to the building in question, having no just claim, but feloniously took away property, intending to deprive the owners of it, then he was guilty of felony; but if he believed he was justified in taking the property, though he might have acted wrongly in taking it, he could not be held guilty of felony. – Mr. Lamport said his brother magistrate, being a member of the corporation, would not act in the case. His (Mr. Lamport’s) own opinion was that the prisoners had behaved very improperly in removing the property from the premises, and that Mr. Swallow was quite justified in taking the course he had done, and in giving them into custody. The magistrate believed that the prisoners had no felonious intention in removing the doors, &c., and they would therefore be discharged, but they must restore the whole of the property they had removed. – Harris consented to this being done, and he and his fellow prisoner were set at liberty.’

This report not only shows that the property at 49 Sir Thomas’s Buildings had at least five grates, an oven and eight doors, but also that Harris had had to vacate the property by 1 May 1863 for demolition. This would

explain why the trade directories show the firm of Jones & Harris moving from Beckwith Street and Sir Thomas’ Buildings (last listed in directories for 1862) to two new premises at 33 Frederick Street and 37 Vauxhall Road, which are listed from 1864 onwards. Despite Jane’s death in 1862, ‘Jones and Harris’ continue to be listed at 33 Frederick Street and 37 Vauxhall Road until 1888, after which just the Vauxhall Road address appears until 1897.

David Harris re-married soon after Jane’s death to Sarah Woolfall Whitaker (married in the third quarter of 1864, West Derby), who had been listed as a teacher of music in the 1861 census. By the time of the 1871 census the family was living at 8 Crosfield Road, West Derby, with three young children. The household comprised David Harris, 35 (born Liverpool *c.* 1836), tobacco pipe maker employing 10 men and 4 women; Sarah Woolfall Harris, 37 (born Liverpool *c.* 1834); Mary W. Harris, 5 (born Liverpool *c.* 1866); Sarah Ellen P. Harris, 3 (born Liverpool *c.* 1868); Annie E. Harris, 4 months, and Martha Walker, an unmarried general domestic servant aged 18 born at Whiston, Lancashire. By 1874 the family had moved to 7 Yanwath Street, Toxteth Park (Gore’s Dir), but David died soon after, aged 39 (buried in the March quarter of 1875, West Derby).

Sarah clearly took over running the pipemaking business, being listed in the 1881 census at 7 Yanwath Street, Toxteth Park, as a 47 year old widow (born Liverpool *c.* 1834) and described as a tobacco pipe manufacturer employing 6 men, 2 boys and 5 females. Living with her were her two daughters, Mary W. Harris, 15 (born Liverpool *c.* 1866), pupil teacher, and Sarah E. P. Harris, 13 (born Liverpool *c.* 1868) as well as Martha Jameson, a 21 year old general servant born at Huyton Quarry, Lancashire. Sarah is listed as a tobacco pipe manufacturer in the directories until at least 1883 but, by 1891 she appears to have sold the business and was ‘living on her own means’. The 1891 household at 7 Yanwath Street, Toxteth Park, comprised Sarah W. Harris, widow, 57 (born Liverpool *c.* 1834) living on own means; Mary W. Harris, 25 (born Liverpool *c.* 1866), elementary school teacher; Sarah E. P. Harris, 22 (born Liverpool *c.* 1868), Draper’s assistant and Ann Briscoe, a 16 year old general domestic servant born at Huyton Quarry, Lancashire. In 1901 she was still at the same address, the household being given as Sarah W. Harris, widow, 67 (born Liverpool *c.* 1834) living on own means; Mary W. Harris, daughter, 35 (born Liverpool *c.* 1866), head mistress board school and Annie Griffiths, a single 25 year old general domestic servant born in Montgomery. Sarah Woolfall Harris died, aged 75, in December 1909 (West Derby).

As mentioned above, Sarah appears to have sold the business by 1891 and this seems to have been to John Warrington and his son Thomas H. Warrington in around 1888, since they are listed at 37 Vauxhall Road

in trade directories of 1889 onwards, often under the name 'Jones & Harris'. The 33 Frederick Street address does not appear after 1888 and so presumably this location became redundant at the time of the take over. The firm of 'Jones and Harris' continued to be listed at 37 Vauxhall Road in the 'trades' section of the local directories until 1897 but under the 'address' sections both John and Thomas H. Warrington are variously listed at that location, suggesting that they were working together in running the business. There is also the unexplained listing of George Norris (in addition to the Warrington's) at 37 Vauxhall Road for one year only in 1890. The Vauxhall Street address last appears in 1897 and then, in 1898, 'Jones and Harris' appear for the last time under Thomas H. Warrington's entry at 24 Jackson Street. From 1899 Thomas appears as a victualler at this address, suggesting that the long established pipemaking business had finally closed.

Although the Warringtons took over 'Jones & Harris' for the last decade of its existence, this was very much a consolidation within a contracting industry, since the Warrington's had a long established pipe making history of their own and both businesses ultimately disappeared. John Warrington was born in Liverpool in about 1819 and by the time of the 1841 censuses was already working as a pipe maker. He first appears in the trade directories as an independent maker in 1845 and continued to be listed as a pipe maker in all of the census returns and most of the directories right up until his death in 1896. He was not always amongst the top flight of Liverpool pipemakers and is also recorded as keeping a 'provision shop' during the 1860s and 1870s (sometimes this is the only trade he is listed under). He had at least five children between about 1846 and 1859, including Thomas Henry Warrington (born c. 1846), who went on to become a pipe maker as well, being listed as such between at least 1861 and 1898. Thomas helped his father in the provision shop until he married Julia Delany in 1874 and then, like him, he mixed the trade of pipe making with another occupation, in his case that of a licensed victualler, from at least 1891 onwards. The fact that they retained the name 'Jones & Harris' when the two of them ran that business from 1889-1898 suggests that that company had a much better reputation and pedigree than they had been able to achieve as a family of pipemakers themselves. The closure of 'Jones & Harris' in 1898 marked the end of an unbroken thread of pipemaking activity in Liverpool that can be traced back through a variety of ownerships, name changes and premises to William Morgan in the 1760s.

From the evidence discussed above, it appears that the joint trade names used often reflected the acquisition of existing businesses as much as the actual partnership of two individuals, and that the company name existed independently of the individuals from whom the names originally derived. For example, 'Morgan and Jones' are only listed briefly at the period when the Morgan family

were ending their pipemaking connections. Perhaps the partnership was intended to lend credibility until the newcomer, John Jones, had established himself. Similarly, 'Jones & Harris' appears to have been a partnership that was only formed after the death of John George Jones and at a time when David Harris was just starting out as a 21 year old coming to a new trade. Despite the fact that the Jones family were never really involved in the new company, the joint name continued in use for nearly 40 years, and even survived a change of ownership to the Warrington family. It appears that reputation was important and that a partnership could perpetuate an established name while allowing a newcomer to find their own position in the market. It is possible to summarise the history of this particular chain of firms as follows:-

1834-35	Morgan & Jones	Beckwith St
1837-57	John Jones / John George Jones	Variously at Beckwith St, Burgess St and Sir Thomas' Buildings
1859-98	Jones & Harris	Burgess St and Sir Thomas' Buildings (1859-63)
		33 Frederick St and 37 Vauxhall Road (1864-88)
		37 Vauxhall Road (1889-97)
		24 Jackson Street (1898)

Table 4.4: Summary of Jones and Harris addresses

The peak of production was almost certainly under John Jones, with 65 employees listed in 1851. Jones and Harris emerged as a one of the principal firms during the second half of the century, with 14 employees in 1871 and 13 in 1881. Unfortunately, it has not been possible to identify any of the bowl forms that were associated with the stems marked 'JONES & HARRIS' from the excavation. The products of this firm remain barely known, despite their being one of the key Liverpool manufacturers. Given the general paucity of Jones and Harris marks that have ever been recorded, and the fact that the firm was one of the largest in the city at the time this deposit was laid down, it seems probable that they only ever marked a small proportion of their products. The recovery of kiln dumps from their various production sites is clearly a priority for future research.

**McDougall** Duncan McDougall & Co were one of the largest pipe manufacturers in the British Isles. The company operated from 1846-1967 and they exported pipes all over the world. They appear to have taken over David Miller's business in Liverpool around 1876 or 1877 (see below) and had stores at 18 Seel Street and 15 Gradwell Street from at least 1878-82. From 1883 until at least 1892 they had commission agents in Liverpool to oversee their business there. The directory evidence shows that McDougall pipes were being stocked in Liverpool from at least 1878-92 and, as one of the country's principal manufacturers, their products are

likely to have been available in the Liverpool area both before and after these dates.

Eight stems marked McDougall, representing seven different pipes (two fragments join), were recovered from context 69 (e.g. Fig. 4.21, nos 52-55). This makes McDougall marks the most numerous from this group, despite the fact that they were imported from Scotland. Six of the examples have the incuse-moulded serif lettering 'McDOUGALL / GLASGOW' along the sides of the stem. The letters are generally small and neatly formed and the serif lettering contrasts with all of the other moulded stem marks from this context, which had sans-serif lettering. In two instances there is a relief-moulded dot at each end of the word 'GLASGOW' (Fig. 4.21, nos 53 and 54). The seventh example is different in that it has incuse, sans-serif lettering reading 'McDOUGALL. GLASGOW / BURNS CUTTY PIPE' (Fig. 4.21, no 52). Burns Cutty was a pattern name that was widely used for pipes at this period, almost always of a plain, spurless type, such as Figure 4.24, nos 113-119. The McDougall example (Fig. 4.21, no 52) is interesting in that the stem has been reused after having been broken, the abrasion and wear marks from the teeth being clearly visible near the broken end, which has slightly rounded edges.

In four of the McDougall examples, it is possible to identify the bowl form that was associated with the stem mark. There are two identical examples of pipes with a bold leaf design on the seams and a flower on each side of the bowl (Fig. 4.21, no 55). Both of these examples are the made of red clay. There are also two examples, from different moulds, with traces of broad flutes extending along the stem, one of which is illustrated in Figure 4.21, no 53. These would have been spurless bowls, like the examples illustrated in Figure 4.22, nos 61 and 62.

**Miller** David Miller was born in Scotland in about 1834 (1871 census) and is first listed in the Liverpool trade directories in 1860, when he appears to have been living at 98 Duke Street and making pipes at 18 and 20 Seel Street. This seems to have been a new enterprise for the 26 year old since, in the 1859 Directory, Houghton, Little & Co were listed as wine, spirit, ale and porter merchants at 18 and 20 Seel Street. Furthermore, in 1859 the address at 98 Duke Street was occupied by George Miller, presumably a relation. By 1864 the directory records that David Miller had business premises at 18 Seel Street and 15 Gradwell Street, which he continued to operate until at least 1875. In the 1871 census, David Miller was given as single, age 37, and living as a lodger in Duke Street. Advert for the business appeared in *The Liverpool Telegraph and Daily Shipping and Commercial Gazette* on 30 and 31 October 1874 as follows:-

PIPES;  
TOBACCO PIPES

FOR HOME USE AND EXPORTATION  
MILLER'S

18, SEEL-STREET and 15, GRADWELL-STREET  
The celebrated British Straw Pipes.

Miller does not appear in the 1876 or subsequent trade directories but it is interesting to note that D. McDougall and Co of Glasgow are listed at 18 Seel Street and 15 Gradwell Street from 1878 onwards, which suggests that McDougall's took over Miller's business and/or premises. Miller has not been traced in the 1881 census and may have returned to Scotland, where he may have had family pipemaking connections, since pipemakers named John Miller are recorded in Aberdeen (1820), Edinburgh (1838-40) and Glasgow (1866-8). There was also a firm called Miller & Kerr in Glasgow in 1869 (see also the notes on the Stewart family below for other Scottish pipemaking connections with Liverpool). Miller is only recorded as a pipemaker in Liverpool from 1860-75 but there may also have been other commercial or warehouse activities taking place alongside his pipemaking activities since, in 1876, Houghton and Hallmark are given as wine and spirit merchants at 18 and 20 Seel Street, presumably a continuation of the business noted there in 1859, before Miller arrived.

There are four stems marked Miller from context 69, all with incuse-moulded, sans-serif lettering. Only one has part of the bowl surviving, a plain, spurless, type (Fig. 4.21, no 47). One stem has the mouthpiece surviving, marked by a line cut in the mould where the stem was to be trimmed. This example has been finished with a light brown glaze (Fig. 4.21, no 46). Another named stem fragment has splashes of a thick, matt black substance on, which may well be the remains of some sort of mouthpiece finish.

Two of the marked stems from context 69 have the start of the name on them, making it clear that it is just 'MILLER', without any initial. A marked stem from Ballasalla, on the Isle of Man, has incuse-moulded, serif lettering reading 'D.MILLER' on one side with incuse-moulded, sans-serif lettering reading 'LIVERPOOL' on the other (Higgins 1996, fig. 19.1). It is odd that the script does not match on each side of this pipe, suggesting that the two sets of lettering are not contemporary. Since sans-serif script tends to be later it seems most likely that it was the place name 'LIVERPOOL' that was added later. McDougall's were using serif script in Glasgow and so the Ballasalla stem could support the suggestion that Miller started his career in Scotland, changing the place name on his moulds when he arrived in Liverpool. Clearly more evidence is needed to test this hypothesis but it is interesting to note the difference in style between the Big Lea Green and Ballasalla examples.

**Posener & Co** One bowl with an incuse stamp facing the smoker reading 'POSENER & Co / RUPERT [ST]'

was recovered (Fig. 4.21, no 37). Adolph and David Posener were prominent London manufacturers, who are listed in the trade directories from 1863-1915 (Hammond 1999). None of these entries, however, gives the Rupert Street address, which is only recorded in 1862, when both Adolph and David patented tobacco pouches (Hammond, *in litt*, 31.3.03). This not only suggests that the Big Lea Green example dates from early in their career but also that it can be accurately dated to around 1862.

**Stewart** Six pipes marked Stewart were recovered – two had the incuse-moulded, sans-serif lettering ‘STEWART / GLASGOW’ on the sides of the stem (Fig. 4.21, no 48). The other four were all damaged but appeared to have just ‘STEWART’ in a similar script on the left-hand side of the stem (Fig. 4.21, nos 49-50). The attribution of these marks with just a surname is slightly uncertain since there were various pipemakers named Stewart in both Glasgow and Liverpool during the 1860s.

The firm of ‘C Stewart & Co’ is listed in Glasgow from 1856-60 and a Charles Stewart from 1860-61 (Anon 1987, 349). These two references may well relate to the same individual who was, presumably, responsible for the fragments marked ‘STEWART / GLASGOW’ from Big Lea Green. Nothing else is known of Stewart’s career, but it seems likely that he was connected with the Liverpool pipemaking family of this name. It may well be that he moved to work in Liverpool himself, since a Charles Stewart is documented working in the city as a pipemaker from 1867-70. There were clearly links between the Stewart families in Liverpool and Scotland (see below) and so it is quite possible that Charles worked in both centres. Similar links with Scotland have not only been noted amongst other Liverpool firms (for example, see McDougall’s above) but also in Manchester, where Edward Pollock from Edinburgh established his works in 1879. It appears that there were strong links between the pipe making industries in Scotland and the North West of England during this part of the 19th century.

The earliest Stewart pipemaker recorded in Liverpool is a William (Junior), who was listed as a pipe manufacturer at 84 Castle Street, Kirkdale, in 1864 (Gore’s Directory). This address had been occupied by a forwarding agent in 1862 and so this appears to have been a new enterprise. A David Stewart, pipe maker, was recorded at the same address in 1865, while William Stewart was listed as a pipe manufacturer at 3 Summer Gardens, King Street, Kirkdale in 1865. Charles Stewart was listed in the directories running a pipe manufactory at 15 & 17 Gildart’s Gardens from 1867-70, while William Stewart & Son were also listed as pipemakers at the same address from 1868 onwards. In 1870 Charles Stewart, William Stewart and William Stewart Junior were all recorded as pipemakers living at 26 Juvenal Street, showing that they were all members of the

same family. Charles may have had a dual occupation, since he was listed at 26 Juvenal Street in 1868 as the ‘Reverend Charles Stewart’. Charles is not listed in the directories after 1870 but the workshop in Gildart’s Gardens continues to be listed, with various changes in street number, operating under the name of William Stewart & Son, from 1868-1900.

The 1871 Census Return for 26 Juvenal Street lists William Stewart (senior) as head of the household, aged 65, born in Scotland and employing 10 men, 6 women and 5 boys. This shows that the Stewarts had already established a substantial pipemaking business by this date. Included in the same household were his wife, Elizabeth, and five of their children, all of whom were unmarried and all of whom had also been born in Scotland. Only one of these was listed as a pipemaker and that was William, aged 25. This must have been the ‘William Stewart, Junior’, who was listed as such in the 1864 directory, when he would only have been about 18. Given his young age at the time, it would seem likely that he set up as a pipemaker with family backing as part of a business move from Scotland. This would help explain why David, Charles and William (senior) all appear as pipemakers at this period and why the quite elderly William (senior) was able to establish himself so quickly.

In the 1881 Census, William (senior) was recorded as 78 years old and his household included one daughter, Isabella, aged 39, born in Scotland and another, Elizabeth, aged 24, born in Liverpool. This suggests that William (senior) must have moved to Liverpool between 24 and 39 years previously, i.e., between 1842 and 1857 (although in 1871 Elizabeth had been given as being born in Scotland). If William had moved earlier, it is not known what he was doing until 1868, when he is first recorded as a pipemaker (there were 11 William Stewart’s listed in both the 1862 and 1867 Liverpool directories, none of whom were pipemakers).

Given that both Williams certainly came from Scotland and that they appear to have been related to Charles, it seems highly probable that Charles Stewart who is listed as a pipemaker in Glasgow is the same one who appears in Liverpool. His move must have taken place at some point between 1861, when he is last recorded in Glasgow, and 1867, when he first appears in the Liverpool directories. Charles’s relocation to Liverpool in the early 1860s may well also explain why some of the Big Lea Green pipes are marked ‘Glasgow’ and why some of the pipes are marked with the surname on one side only, the place-name having been deleted from the moulds when he moved. Since Stewart pipemakers are documented in both Glasgow and Liverpool it will be impossible to attribute the pipes that are just marked ‘Stewart’ to a particular member of the family with any certainty until more examples, or good kiln groups, have been recovered.

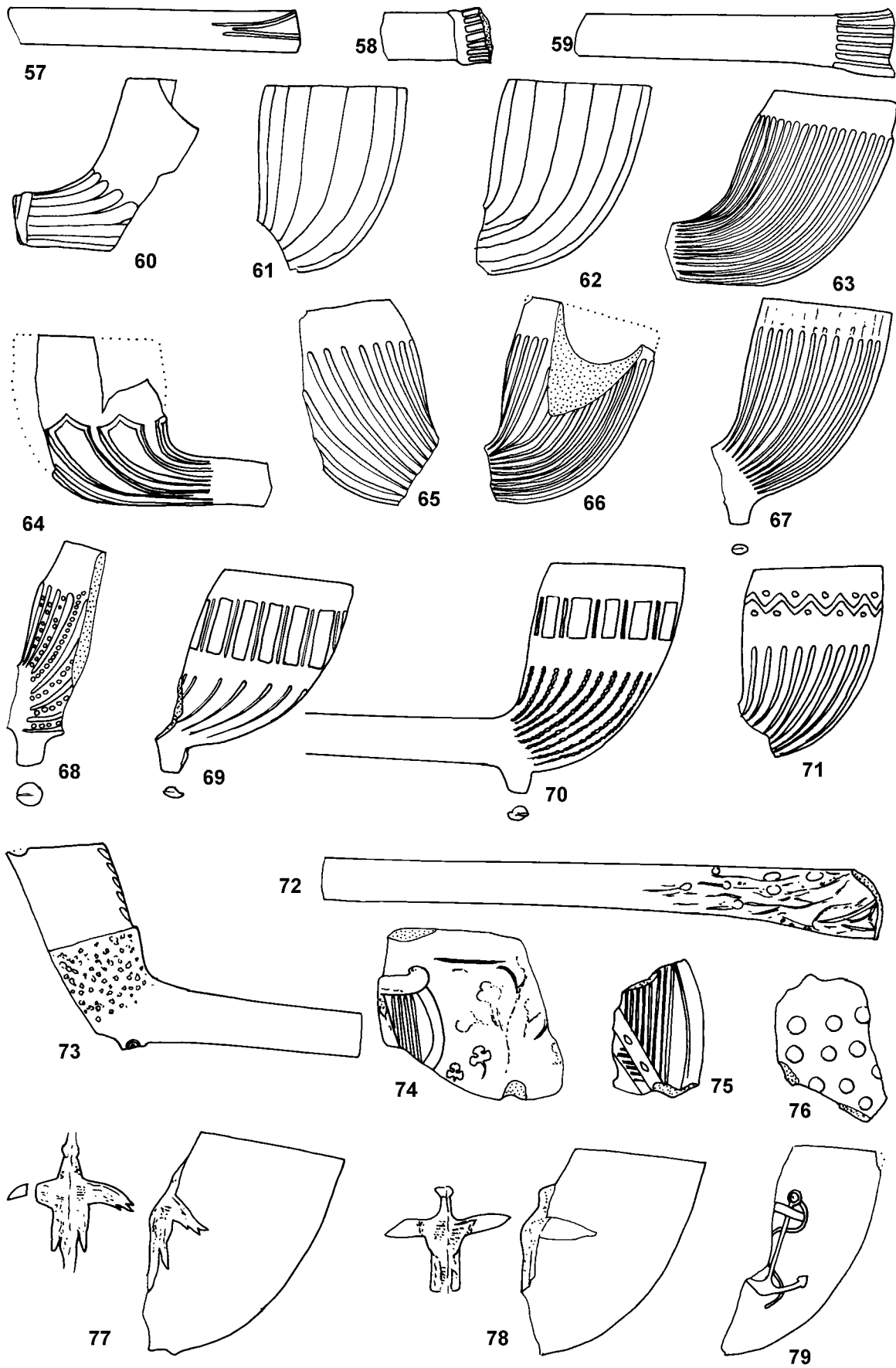


Fig. 4.22: 57-79: Clay tobacco pipes, scale 1:1

Another Charles Stewart appears in the Liverpool directories between 1901 and 1932, but this is too late to be the same Charles who was working in the 1860s. This later Charles may well have been the nephew of William Stewart Senior, since a two year-old nephew called Charles was living with William Senior in 1881 (Census). This second Charles appears to have worked principally as a pipe-mounter and repairer rather than as a manufacturer but he continued a family connection with the trade that lasted for at least 70 years.

Little can be said of the Stewart bowl types represented by the finds from context 69, other than one example appears to have had a plain, spurless bowl (Fig. 4.21, no 48); two examples had a narrow bar moulded beneath the stem (Fig. 4.21, no 49) and one example has some relief moulded dots on the bowl (Fig. 4.21, no 50). This last type may have had a bowl similar to the fragment illustrated in Fig. 4.22, no 76. The two pieces with the bar beneath the stem may well have been from a pattern known as 'St Patrick'. This was a spurless form with a cross set against a shamrock leaf beneath the bowl and a few small 'beads' running up the seam away from the smoker. A small bowl fragment with beading on, and probably from one of these bowls, was also found in this context (Fig. 4.23, no 80).

### Bowl Forms

The bowl forms represented in this group are much more diverse than would have been found in any of the preceding periods. During the 1840s and 1850s a new spurless form of pipe became popular in Britain, for example, Figure 4.24, nos 112-119. These spurless pipes often had short stems, another innovation that was introduced at the same period. Just over a half of the bowl forms from this context group were spurless types, a total of 67 out of 129 identifiable pipes. The majority of these were plain (55 examples; e.g. Fig. 4.24, nos 112-119), although some had bowl stamps added to them (Fig. 4.21, nos 38 and 42) or makers marks moulded on the stem (Fig. 4.21, nos 47-48). The 12 decorated examples only represent about 18% of the spurless bowls and almost all of these are one of a variety of fluted forms (e.g. Fig. 4.22, nos 58-64). The only notable exceptions were the two red bowls with leaf and flower decoration on them (Fig. 4.21, no 55). Fragmentary remains hinted at one or two other designs, for example, the stem with a rusticated section and part of a large leaf design that would almost certainly have come from a spurless pipe (Fig. 4.22, no 72). This piece is also notable since it clearly comes from a long-stemmed pipe, whereas spurless bowls were more frequently used on short-stemmed pipes.

In contrast, spur forms could be found on either long- or short-stemmed styles. The majority of the 62 identifiable spur forms (40 examples; 65%) were plain types (e.g. Fig. 4.23, nos 87-98; Fig. 4.24 nos 99-100). Some of

these can be compared with other material to show what form the complete pipes are likely to have taken. For example, long-stemmed pipes shipped out of Liverpool on the *Adgillus* in 1874 had bowl forms similar to Figure 4.23, nos 88 and 94. The *Adgillus* was wrecked off the Isle of Man and complete pipes salvaged from her had stems of between 376mm and 388mm in length (14.5"-15.25"; author's collection). Large forms, such as that shown in Figure 4.23, no 91, would also have had long stems and some of the smaller ones, such as Figure 4.23, nos 93, 97 and 98, would probably have had short stems. With many of the bowl forms, however, it is hard to be sure, since they could have occurred as either long or short varieties. In general terms, the plain spur bowls are more likely to represent long-stemmed pipes than the spurless varieties.

Two of the spur bowls were made of red clay (Fig. 4.23, nos 97 and 98), but these were always rare and the majority of the pipes are white. Several of the bowls had symbol marks moulded on the spur (e.g. Fig. 4.23, nos 87-91). The symbol mark consisting of two small o's was also found amongst the *Adgillus* pipes. In one instance a plain bowl was marked with the relief moulded initials KK (Fig. 4.21, no 56). These are very unusually orientated, not only being upright on the spur, but also inverted. The maker has not been identified. The low number of actual makers' initials on the spurs is a regional characteristic, since a contemporary group from the south of England would have contained a significant proportion of spurs marked in this way.

Most of the spur bowls were of 'average' size, although one fragment in particular clearly came from a much larger variety. This fragment (Fig. 4.24, no 101) has had its substantial heel or spur broken off and only a part of the bowl survives. The surviving fragment has very thick walls and appears to have been plain. Where decoration occurred on the spur bowls, it was most likely to consist of either flutes (11 examples (18%); Fig. 4.22, nos 67-70) or leaf decorated seams (7 examples (11%); Fig. 4.23, nos 81-86). Occasionally, these basic elements were combined with other designs, such as the 'acorn' bowl with leaf decorated seams shown in Figure 4.22, no 73. Several of the more fragmentary pieces are also likely to have come from spur forms, for example, the ship and anchor design, of which fragments of two examples from the same mould were recovered (Fig. 4.22, no 79) or the examples with birds facing the smoker (Fig. 4.22, nos 77-78). These birds are perhaps intended to represent doves, a motif that was certainly being used on pipes at the time, although they could alternatively be intended to be Liver Birds, the symbol of Liverpool and a motif that was popular on local pipes from the late 18th to the mid 19th century. The Liver Bird, however, is usually depicted standing and with a piece of seaweed in its beak rather than in flight with its wings spread. The example illustrated in Figure 4.22, no 77 is one of two examples from this context, both

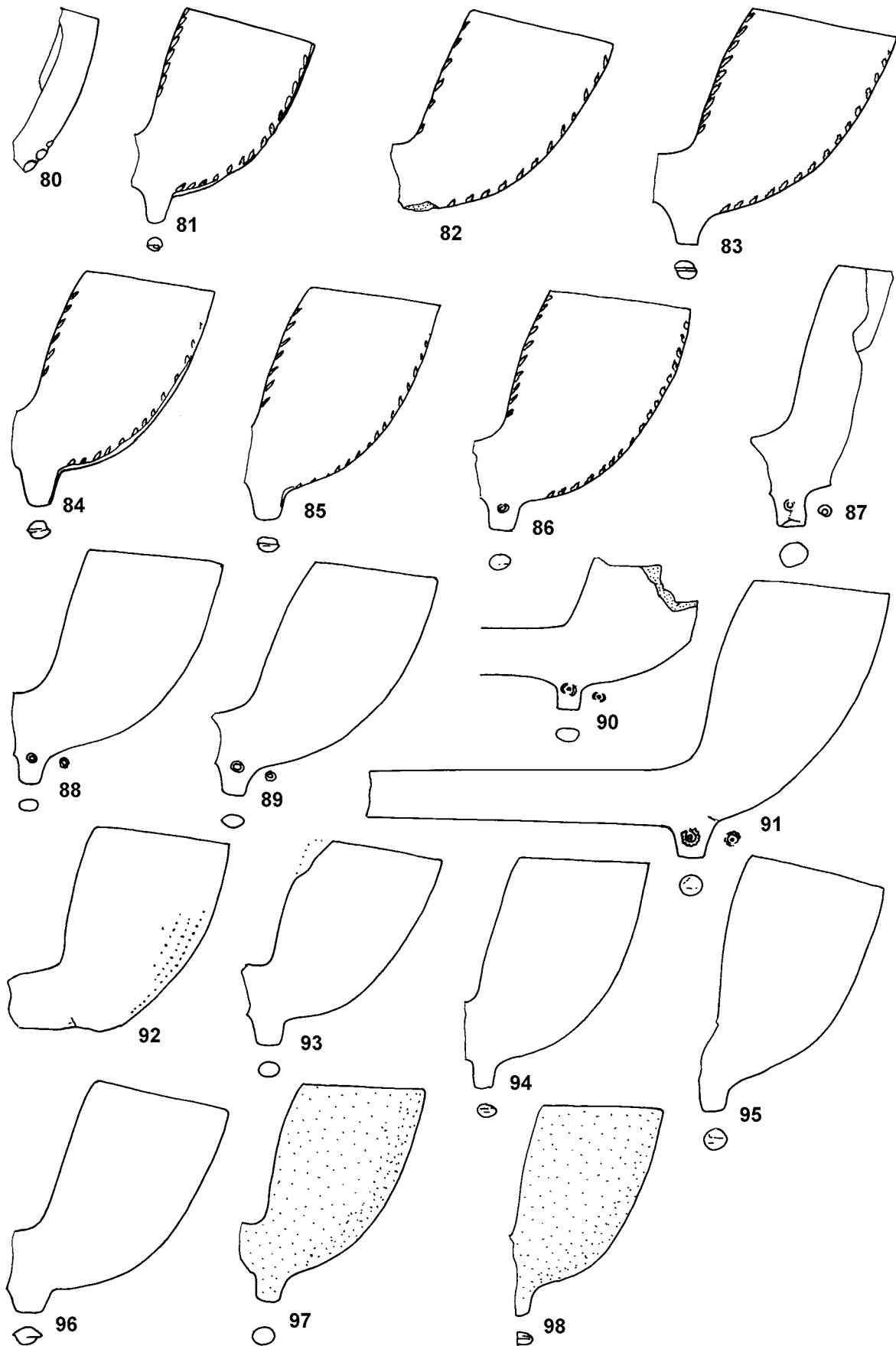


Fig. 4.23: 80-98: Clay tobacco pipes, scale 1:1

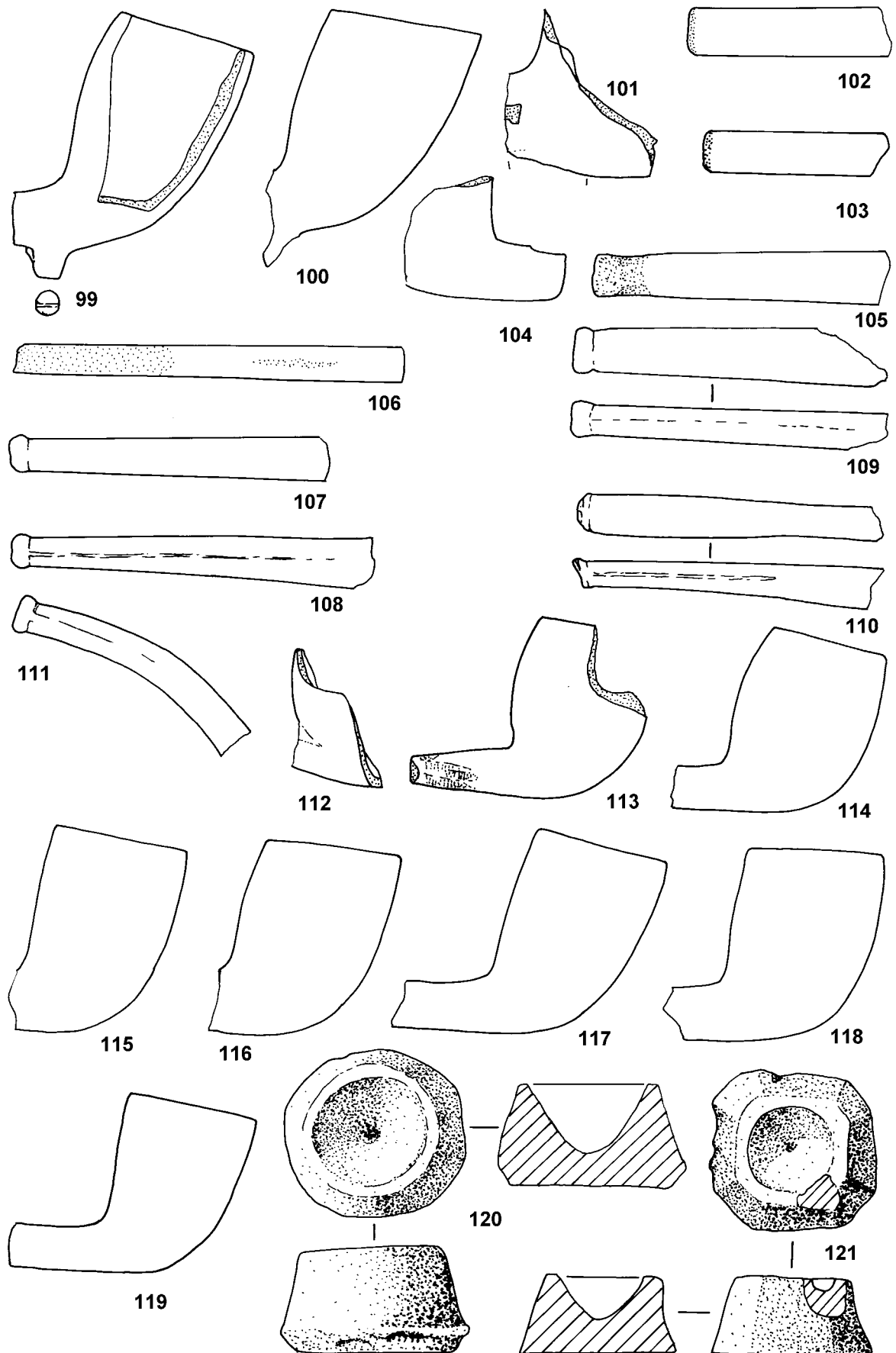


Fig. 4.24: 99-119: Clay tobacco pipes; 120-121: Other pipe-clay objects, scale 1:1

of which were produced in the same mould. Another example that appears to be identical, even down to the damaged left wing, has been found at Bickerstaffe, West Lancashire (Ron Dagnall, pers. comm.). The design is also known from slightly further afield, for example, an example from excavations at Hamilton Place in Chester has this design on the bowl but is from a different mould from either of the Big Lea Green examples. This suggests that various local manufacturers were making this bird design.

The final category of pipes to mention includes both plain and decorated varieties and, potentially, both spur and spurless types. These are the Irish style pipes. Irish migrants had long worked as labourers in England but, following the Great Famine of the 1840s, even more Irish families settled in Britain. Irish style pipes became very popular and were not only imported from Ireland but also made in identical styles by many of the British manufacturers. Irish style pipes are characterised by various combinations of thick-walled bowls; patriotic decoration or slogans; Irish pattern names and marks containing Irish names or places, many of which were quite spurious and nothing to do with where the pipes were actually made. Late 19th-century trade catalogues from pipe manufacturers in Scotland or north-west England show a variety of Irish patterns with marks such as 'O'Brien' or 'Dublin' on them.

The assemblage from Big Lea Green includes a small but distinctive group of Irish style pipes, which shows the range that was being used in the area during the early 1860s. There are parts of at least four Irish style bowls with milled rims and stamps on the bowl, the most complete of which are shown in Figure 4.21, nos 39-41. It is worth noting that, at this date, all of these examples have hand-applied milling around the rim, as opposed to moulded milling, which became common in the later 19th century. These examples all have very thick walls and designs such as this were often marketed as 'Dublin', 'Derry' or 'Cork' (cf. Fig. 4.21, no 41). Figure 4.21, no 39 is an actual Irish import, being stamped J Leamy, Waterford, but the others could have been made anywhere, the crowned L mark being particularly common on this style of bowl (Fig. 4.21, no 40). A similar bowl with a shield shaped 'J. LEAMY / WATERFORD' stamp on it has been recovered from the fields around Slack House Farm near Ormskirk, suggesting that Leamy regularly exported to the North West. Decorated pipes are represented by part of a very large, thick-walled bowl with fairly crude harp and shamrock decoration on it (Fig. 4.22, no 74) and part of another with a much more finely executed harp on it (Fig. 4.22, no 75).

### **Mouthpieces and Reworked Breaks**

A total of 26 mouthpiece fragments were recovered from context 69 and these provide an indication of the

forms and finish that were in use during the early 1860s. Ten of the mouthpieces were formed in the traditional manner, with a simple cut end, as shown in Figure 4.24, no 106. In two instances, there appears to have been a small line cut in the mould, presumably to indicate the point at which the stem was to be trimmed to form the mouthpiece so as to produce pipes of a uniform length (Fig. 4.21, no 46). The illustrated example is interesting since it comes from a short-stemmed pipe made by Miller of Liverpool. This type of simple cut end had been universally used on the earlier pipes, which had longer stems. The Miller fragment is from a short-stemmed or 'cutty' pipe, a style that was introduced during the 1840s and 1850s. These pipes generally had a nipple type of mouthpiece and so this example appears to represent a hybrid between the two styles. The line around the stem forms a slight thickening, or nipple, where the stem is cut, but it is not as clearly formed or pronounced as in the fully developed examples.

Of the ten examples with cut ends, four have glazed mouthpieces. As is usual with this type of finish, the glaze fully coats the end section and then extends up the stem as a series of splashes. The Miller stem (Fig. 4.21, no 46) is fully coated for 20mm and has splashes extending for 57mm from the tip. The glaze is a translucent brown colour, like varnish, with an area of darker mottles on one side. One edge of the mouthpiece is quite rough. There are two other examples of a brownish glaze, both of which have a very uneven application and rough surface to the glaze. At least one appears to have been badly burnt, presumably having been discarded into a domestic hearth after having been broken, and it may be that this affected the glaze. The rough finish on these examples could have been due to the glaze being re-melted and picking up debris from a hearth or fire after the pipes were discarded. Certainly the rough finish would not have made them very pleasant to smoke and it seems unlikely that they would have been sold in this form. One has a complete coat for about 21mm and extends up to 26mm in places; the other is fully coated for 19mm with areas coated for up to 31mm. The final piece has a smooth, pale green glaze on it (Fig. 4.24, no 106). This glaze coats the stem fully for 22mm with splashes extending for at least 58mm up the stem.

Fully developed nipple mouthpieces occur on 16 of the examples. This style of mouthpiece was almost always associated with the short-stemmed or 'cutty' pipes that became popular during the 1840s and 1850s. In six of these instances the stem is cylindrical to the end, which then terminates in a rounded nipple (Fig. 4.24, no 107). One of these examples is unusual in that it is made of red clay. More frequently, however, the stem becomes oval or lozenge-shaped before the nipple (10 examples, e.g. Fig. 4.24, nos 108-111). Usually this shaping is confined to a short distance on each side of the stem extending from the nipple towards the

bowl but, in some instances, the whole mouthpiece section becomes widened. Figure 4.24, no 109 shows an example where the whole stem becomes broad and flattened as it extends from the mouthpiece, before turning in sharply to become cylindrical at a distance of 52mm from the tip. Figure 4.24, no 110 shows a less extreme example, where the end 35mm is flattened. In one instance the whole of the stem is lozenge-shaped (Fig. 4.24, no 108) and the angle change at the sides of the stem would have continued up the sides of the bowl. This stem is particularly short – it survives to a length of 60mm and is just starting to open into the bowl. Another mouthpiece has been given quite a sharp curve to the stem (Fig. 4.24, no 111). This pipe would have also had a very short stem and a bowl similar to Figure 4.24, no 112. Only two other fragments of sharply curved stem were recovered from this context, showing that short-stemmed pipes with sharply curved stems only formed a small part of the styles in use.

None of the nipple mouthpieces has a glazed finish, perhaps because this would have been more difficult to apply to these short-stemmed pipes. Other types of finish, such as wax, may well have been used but this rarely survives in the archaeological record. One piece shows staining for 21mm from the tip where some such finish appears to have degraded while a stem fragment marked 'MILLER / LIVERPOOL' has splashes of a matt-black substance on it, which probably came from some sort of mouthpiece finish. Although a relatively small sample of mouthpieces was recovered, they clearly show a wide range of mouthpiece styles and finish was being used by the 1860s.

One final point in relation to mouthpieces is the evidence for the reuse of broken pipes from this context. There were at least four stems and two bowls where the broken end showed signs of having been slightly rounded or smoothed (Fig. 4.21, no 52; Fig. 4.24, nos 102-105 and 113). The degree to which the broken edges have been rounded is generally very slight, although the bowl fragment (Fig. 4.24, no 105) has had its broken stem end ground completely smooth. This example seems too short to have been smoked in this condition, unless it was inserted into some other sort of stem, as appears to have been the case with the bowl shown in Figure 4.24, no 113. In this instance, the broken stem end has a series of facets cut into it so that it tapers to a rounded point. This reworked end could easily have been inserted into some other form of tube or stem so as to allow reuse of the pipe. In other instances, there is no doubt that the broken pipe was re-used with just the surviving stem, as can be seen in Figure 4.21, no 52 and Figure 4.24, no 105 where the abraded end of the stem has been worn into a slight hollow by the teeth having clenched the pipe. The context as a whole produced the remains of at least 129 pipes, based on the minimum number of bowl/stem junctions present. These half dozen examples of modified breaks suggests that only

a small percentage of the pipes were reused after they had become broken (four modified stems out of the 205 recovered from this context amounts to only about 2% of this sample).

### The Pipes as Archaeological Evidence

One of the most useful functions of pipe fragments is as a means of accurately dating and interpreting the archaeological deposits in which they occur. The detailed catalogue, deposited as part of the site archive, provides details of all the fragments recovered while a summary of this information is provided in the site archive. The significant contexts have been described and discussed above. The following section considers how this information fits into a broader interpretation of the site.

The first point to note is that the archaeological record only produces a partial and biased sample of what once existed. Despite being continually occupied during the post-medieval period, this site produced hardly any 18th-century pipes and, had the domestic dump (context 69) not been within the excavated area, there would only have been scant remains of the 19th-century occupation. In this sense, the pipes only reflect events that have happened to survive in the archaeological record and their absence in other periods may simply reflect waste disposal taking place away from the main occupation site.

The pipes that have been recovered, however, provide some useful evidence for the use of the site. The three groups from the first ditch (contexts 77, 95 and 101) all appear to come from 'fresh' deposits containing large and unabraded fragments. The numerous cross-joints suggest that this material has not been much disturbed since it was discarded and it seems likely to reflect domestic debris discarded into the ditch as it was being filled. The large amount of substantially intact domestic pottery accompanying the pipes supports this view and suggests a major clearance and remodelling of the house and grounds at this time. The presence of a few transitional pipe types places this event late in the 17th century. The small number of these transitional forms together with the lack of more developed 18th-century forms suggests that this event did not take place after about 1700 and a date between 1680 and 1690 seems most likely. At the same time, similar pipe forms were found in the widening of the cellar steps, suggesting that these two events were contemporary. Documentary sources should be able to identify the family that generated this material and it may even be possible to identify a family death or change of ownership that gave rise to a refurbishment of the house and grounds at this time. The filling of another ditch, represented by the pipes from context 269, took place a little later and shows that changes to the layout of the property continued into the early 18th century.

Most of the later deposits only produced scrappy evidence, making it hard to use the pipes in any meaningful way to interpret the site. The only exception is the 1860s rubbish dump, context 69. This has provided a wealth of information about the material possessions and lifestyle of the farm's occupants at this time. The 1861 Census will easily identify the household at the time and enable the artefactual evidence to be related to named individuals. The pipes suggest that the occupants enjoyed a comfortable lifestyle with access to a wide range of different styles. These were not necessarily always the cheapest, with imported examples and long-stemmed pipes making up a significant proportion of the assemblage. Having said that, there was no evidence of the elaborately decorated French pipes which were readily available at this time, or imported porcelain bowls, which are sometimes found at this date (e.g. Higgins 1992b).

At a broader level, the pipes provide an indication of how the farm drew on local services and supplies. Big Lea Green is situated on the southern edge of the Rainford pipemaking area. It is no surprise that all of the 17th-century pipes seem likely to have come from this centre. The situation in the later 17th and early 18th century is less clear. The bowl forms at this period are of Chester types and they are made of imported, not local clays. Unfortunately, many of the Rainford makers at this period adopted Chester styles and the use of imported clay so, without makers' marks, it is impossible to be sure whether these pipes are locally produced or imports from elsewhere. Liverpool must be considered as a likely alternative source for these pipes, although only one good group of this date has been published from the city, making it hard to be sure what was being produced there (Davey 1985). What is clear, however, is that Liverpool was using imported clays and producing similar forms to Chester. Given its proximity, Liverpool must be a more likely source than Chester for any imported pipes of this type to Big Lea Green.

The few early 19th-century pipes are of local styles, in contrast to which the 1860s group from context 69 produced a wide range of material. This shows that, by the 1860s, transport systems had developed sufficiently to allow a much greater range of products to enter the market. Rainford still possessed a thriving pipemaking industry but it was now in competition with products from as far away as Scotland, Ireland and France. No Manchester products were identified amongst the assemblage but this is another production centre that has been little studied. Manchester pipes were certainly reaching Warrington during the 19th century (Higgins 1987a, fig. 10.14) and so some of the unmarked examples from this site may have come from that centre.

### **Other Pipeclay Objects**

In addition to the pipes, three other pipeclay objects were

recovered from the site. Two of these were small objects with a smooth, rounded depression in the centre. The first (Fig. 4.24, no 120) is made of a very hard fired clay that has a very dense feel to it – more like a parian or porcellanous body than a simple ball clay. The object has been formed in a two-part mould shaped as two truncated cones and with the mould seam around the carination where they join. The mould seam itself does not fit very tightly, leaving quite a ragged edge where it meets. A pellet of clay has clearly been pressed in the mould leaving fold marks where it has been squeezed and a void in one area where it has incompletely filled the mould.

The second example (Fig. 4.24, no 121) is made of a more typical feeling pipeclay and has also been formed by squashing a pellet of clay into a mould. In this instance, however, the mould appears to have been one piece and octagonal in form. The faceted sides are slightly dished and there are clear fold and stretch marks where the clay has been forced into the mould and compressed. The base of the object, however, is not mould formed, but has been created by slicing the clay off, presumably flush with the edge of a one-piece mould. This action has left a sharp and fairly ragged edge around the base of the object.

At present, it is not possible to identify these objects. What can be said, however, is that they belong to a class that has been quite widely reported from archaeological sites, the author's files containing notes on examples from Rainford in Merseyside, Kington in Herefordshire, Winster in Derbyshire, Sheffield Castle and a site somewhere in Shropshire. Furthermore, these objects occur in two distinct forms, those with rounded hollows in the centre and those with rounded protrusions. Examples of both forms have been illustrated by Dagnall (1988, fig. 14). These objects occur in a variety of shapes – round, octagonal, square – and with either plain, dished or fluted sides. What links them all is the fact that they all have either dished hollows or rounded protrusions in the centre. They are also all mass produced, being roughly pressed into moulds with little regard for the folds, voids or stretch marks that often appear. Furthermore, the bottom edges are usually just roughly trimmed leaving a sharp edge. These characteristics, combined with the number of sites from which examples have been found, suggests that they were once relatively common objects, but not ones that required any great degree of finishing, especially around the base.

Until now, it has not even been possible to assign a date to these objects with any degree of certainty. The recovery of one of these examples from context 69 is important in that it provides an early 1860s context for at least one of these objects (Fig. 4.24, no 120). The other example (Fig. 4.24, no 121) was recovered from context 110, a context that produced pipes of 17th- to late 19th- or even early 20th-century date. Quite a number of these objects have been found in the fields around Rainford and it has been assumed that they formed a sideline of the pipemakers there (Dagnall 1988). Gordon Pollock, a retired pipemaker

from Manchester who started work in the 1920s, had never seen any objects like these and so, if these were pipemakers' sidelines, they are likely to have gone out of production by the early 20th century.

Various suggestions as to the possible use of these objects have been put forward, but the only really credible one appears to be that they were used in pairs as miniature mortars and pestles to crush pills. It is certainly tempting to see the two different types engaging with one another, although the sharp and often roughly finished edges do not seem conducive to being held and pushed together to crush pills. Furthermore, no example has yet been noted with any sign of wear or polish where the rounded surfaces have been rubbed together. It may be, however, that any such wear would be very slight and not easy to detect without high resolution magnification. At present the use of these objects remains uncertain. But what this site does do is to provide two more examples as well as a date in the early 1860s when they can be shown to have been in use.

The final pipeclay object from this site is also slightly hard to identify with any certainty although it is probably either a pipe or a doll's leg. The object itself was recovered from context 69 and so it can be dated to the early 1860s. It has been pressed in a two-piece mould and has a 4/64" diameter hole running through it (Fig. 4.25, no 122). It is formed in the shape of a leg, at the upper end of which part of an opening or cavity survives. This object is quite large and chunky for a pipe, on top of which the seams and surface appears to have been wiped to give a smooth finish. As such it seems most likely to be part of a doll's leg, the cavity being to accommodate some organic upper part and the hole to facilitate attachment. The other possibility is that it is part of a pipe shaped as a lady's leg. Such pipes are known, with the toes forming the mouthpiece and the bent thigh the bowl. The scale, realistic form and finish of this piece all suggest, however, that this is the less likely of the two options.

### Summary

The pipes from this site not only provide a valuable means of dating and interpreting the deposits in which they occur, but also an important reference point for future pipe studies. The 1680s ditch group shows the range of local bowl forms and finishing techniques that were in use as well as providing two different examples of a previously unrecorded maker's mark. This group fills a gap that is not well represented in previously excavated groups and makes an interesting comparison with the contemporary material found elsewhere in the region as well as to the east of the Pennines. It also provides tantalising evidence as to the stem length of these pipes, although it was not possible to reconstruct any complete examples.

The pipes from context 69 form a large and coherent group and one that sets an important benchmark for both regional and national pipe studies. The group is closely datable to

the early 1860s and provides an excellent example of the range of pipes available to and being used in a domestic context. The local styles of bowl form and decorative motifs that flourished in the area during the first half of the 19th century had completely disappeared, to be replaced by more general regional or national styles. There is also a fundamental change in the types of pipe represented, with short-stemmed or cutty pipes now making up a significant proportion of the assemblage. Just over half of the pipes had spurless bowls and the majority of these (82%) were plain. When decoration did occur, it was almost always some sort of fluted pattern with just one or two other designs being represented, for example, the 'St Patrick' or flower motifs. A similar pattern could be observed amongst the spur pipes, 65% of which were plain. Decoration was then predominantly either flutes (18%) or leaves (11%), with a limited range of other designs. These included patterns with local appeal, such as the possible Liver Birds or ship and anchor motif. There was also a small but important group of Irish styles present.

A significant number of the 499 fragments had some form of maker's mark on them (45 examples). The rarest type of mark was hand applied and this type was represented by eight bowl stamps and one stem stamp, all of which were incuse. The next most common type were spur marks, of which there were 14 examples, all but one of which were just symbols. The most common type of mark, however, was the incuse moulded stem mark, which was represented by 22 examples. With the exception of the McDougall marks, these were all formed of sans-serif lettering, which shows that this script had become firmly established by the early 1860s.

The marked pipes represented a very wide range of sources. There were several examples from Glasgow and one from Ireland. Local Liverpool makers were reasonably well represented and there were two examples from London as well as one from France. This wide range of sources was something of a surprise, especially given the sites location on the edge of the major Rainford pipemaking industry and close to Liverpool, which had a significant pipemaking industry of its own. The diversity of these sources may well reflect both the growth of Liverpool as a major international port and the increased internal trade that was possible as a result of the railways. The wide range of sources is clearly in marked contrast to the predominantly local distribution of pipes that had characterised earlier periods. It is also significant that this material was reaching consumers in the port's hinterland and that it was not confined to the urban areas around the docks themselves.

Despite the fact that a significant number of 'imported' pipes were clearly both available and being used, the majority of the pipes recovered were unmarked. In most cases each pipe was slightly different, showing that a very large number of mould types was represented. Most of these unmarked pipes are likely to have been made locally,

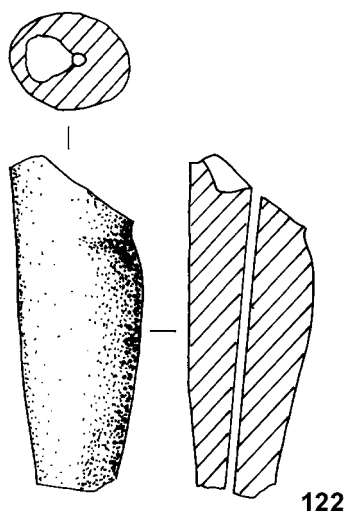


Fig. 4.25: 122 Pipe-clay object, scale 1:1

being the 'bread and butter' production that would have supplied the everyday market. In one or two instances, duplicate examples were recovered, for instance, two examples of Figure 4.22, nos 69, 77 and 79, while there were three examples of Figure 4.22, no 64 and as many as nine of Figure 4.22, no 70. The types with multiple examples are even more likely to be local products, as opposed to the single examples of French or Irish marks. At a broad level, it can be assumed that this group represents both the nature and range of pipes being used in this particular household. The marked pipes indicate the available supply sources while the unmarked pipes are more likely to reflect the styles that were being produced in the local pipemaking centres of Rainford and Liverpool.

### List of Figures

Where there is more than one bowl fragment from the same context a letter (A, B, C, etc) has been allocated to each piece to identify it in the records. These letters have been pencilled onto the pipe fragments and are given in brackets following the context number. The illustrations are all at 1:1 with the exception of the stamp details in nos 16, 17 and 35, which are at 2:1. All objects are from Area XVIII.

1. Pipe bowl of *c.* 1640-1660. The rim is bottered and the surface has been given a good burnish. Stem bore 7/64". Context 237, SF1181.
2. Pipe bowl of *c.* 1660-1680. The rim is bottered and the surface has been given an average burnish. Stem bore 7/64". Context 237, SF1188.
3. Small, bulbous spur form of *c.* 1650-1680 (and probably *c.* 1655-1670) with a flattened base to the spur and a crescent shaped IB mark facing the smoker. The rim is bottered and the surface has been given a fine burnish. There is a thin band of milling around three-quarters of the rim. The small bowl form and presence of milling differs from the larger, later forms illustrated below. Stem bore 8/64". Context 110, SF185.
4. Pipe bowl of *c.* 1660-1690 with a crescent-shaped bowl stamp, which probably reads IB (the surname initial is unclear). The surface of the pipe is soft and has abraded rather making it unclear whether it was burnished originally - slight striations on stem suggest it may well have been. The rim is bottered and the fragment has 81mm of straight stem surviving. Stem bore 7/64". Context 101, SF28 (L).
5. Pipe bowl of *c.* 1670-1690 with an illegible stamped bowl mark. The rim is bottered and the surface has been given an average burnish. Stem bore 7/64". Context 77, SF817 (D).
6. Pipe bowl of *c.* 1660-1690. The rim is bottered and the surface has been given an average burnish. Local spur type, similar to another bowl in Context 77, SF817 (A), but from a different mould and of a slightly poorer overall finish. Stem bore 6/64". Area XVIII, Context 77, SF817 (B).
7. Pipe bowl of *c.* 1670-1690. The rim is bottered and the surface has been given an average burnish. The fragment has 91mm of straight stem surviving. Stem bore 7/64". Context 101, SF28 (N).
8. Pipe bowl of *c.* 1670-1690. The rim is bottered and the surface has been given an average burnish. The fragment has 130mm of straight stem surviving. Stem bore 7/64". Context 101, SF28 (P).
9. Pipe bowl of *c.* 1670-1690. The rim is bottered and the surface has been given an average burnish. The bowl (SF28) joins with a stem from the same context (SF29) to give 122mm of straight stem surviving. Stem bore 7/64". Context 101, SF28/29 (Q).
10. Pipe bowl of *c.* 1670-1700. The rim is bottered and the surface has been given a good burnish. Neatly finished local spur type. Rim slightly chipped but unlikely to have been milled at all. Stem bore 7/64". Context 77, SF817 (C).
11. Pipe bowl of *c.* 1670-1690. The rim is bottered and the surface has been given an average burnish. The fragment has 131mm of straight stem surviving. Stem bore 8/64". Context 101, SF28 (O).
12. Pipe bowl of *c.* 1670-1690. The rim is bottered and the surface has been given an average burnish. This fragment has 70mm of straight stem surviving. Stem bore 7/64". Context 101, SF28 (R).
13. Pipe stem of *c.* 1680-1720 with part of a crude decorative border made up of lines and dots, the edge of which is about 64mm from the bowl junction - bowl missing. Imported fabric; stem bore 7/64". Context 77, SF821.
14. Pipe stem of *c.* 1680-1720 with a fine burnish. Slightly oval stem in an imported fabric with a stem border starting at least 45mm from the bowl. Although there is a contemporary bowl in this context (no 15), it is almost certainly from a different pipe. This context also contains another decorated border, probably identical, but from another pipe. Stem bore 6/64". Context 236, SF900 (AH).
15. Pipe bowl of *c.* 1680-1720. Three joining fragments (freshly broken) from a very hard fired transitional spur type made of a fine, imported fabric. The rim is cut and the surface is not burnished. Stem bore 6/64". Context 236, SF898.
16. Pipe bowl of *c.* 1660-1690 with a stamped mark reading GR. The rim is bottered and the surface has been given an average burnish. There is a flattened base to the spur. A joining stem gives *c.* 155mm surviving and this is markedly concave on its upper surface. The bowl rim looks pretty circular without obvious sign of squatting, but it is a thick, robust form that would be resistant to this. Stem bore 8/64". Context 95, SF234. Stamp detail at 2:1. National Catalogue Die Number 1957 (type example).

17. Pipe bowl of *c.* 1660-1690 with a stamped mark reading GR. The rim is bottered and the surface has been given an average burnish. The bulbous bowl (SF28) fits a joining stem (SF29) giving a total of 146mm of straight surviving stem. Pipe neatly made and finished. Stem bore 7/64". Context 101, SF28/29 (M). Stamp detail at 2:1. National Catalogue Die Number 1958 (type example).
18. Pipe bowl of *c.* 1660-1690 with a stamped mark reading IB. The rim is bottered and the surface has been given a poor burnish. There is 61mm of surviving stem. Stem bore 7/64". Context 101, SF30 (U).
19. Pipe bowl of *c.* 1660-1690 with a stamped mark reading IB. The rim is bottered and the surface has been given a good burnish. The bulbous heel form (SF30) joins a stem fragment (SF29) to give a total of 172 mm of surviving stem. The stem is markedly concave on its upper surface and the bowl has squatted during firing. Stem bore 8/64". Context 101, SF29/30 (X).
20. Pipe bowl of *c.* 1660-1690 with a stamped mark reading IB. The rim is bottered and the surface has been given a good burnish; there is 50mm of surviving stem. Same mould type as another example in the same context (T). Stem bore 8/64". Context 101, SF30 (S).
21. Pipe bowl of *c.* 1660-1680 with a stamped mark reading IB. The rim is bottered and the surface has been given a good burnish. The relief stamped IB mark has been applied sideways to the heel. Stem bore 7/64". Context 230, SF894.
22. Pipe bowl of *c.* 1680-1710 with a stamped mark reading IB. The rim is bottered and the surface has been given a poor burnish. Transitional bowl form with an inverted IB mark on the heel and 77mm of stem surviving. Stem bore 7/64". Context 101, SF30 (Z).
23. Pipe bowl of *c.* 1680-1710 with a stamped mark reading IB. The rim is bottered and the surface has been given a good burnish. Transitional bowl form with IB mark on the heel and 75mm of stem surviving. Stem bore 7/64". Context 101, SF30 (AA).
24. Pipe bowl of *c.* 1690-1720 with a cut rim. Later looking bowl form than the rest of the context group. Glossy fabric, but no clear sign of having been burnished - only very lightly if it has been. Stem bore 6/64". Context 77, SF817 (H).
25. Pipe bowl of *c.* 1690-1720. The rim is cut and the surface has been given an average burnish. Transitional spur form in a well fired imported fabric. Only the bowl appears to be burnished, not the surviving stem (22mm). Base of spur trimmed. Very similar to, and possibly from the same mould as another example (AC). Stem bore 6/64". Context 269, SF887 (AB).
26. Pipe bowl of *c.* 1690-1730. The rim is internally trimmed and cut; the surface has been given a good burnish. Typical local transitional form, well made and finished and with a trimmed base to the spur. Stem bore 5/64". Context 88, SF178 (I).
27. Pipe bowl of *c.* 1800-1850 with a cut rim. Stem bore 4/64". Context 88, SF178 (J).
28. Pipe bowl of *c.* 1690-1720. The rim is cut but the surface has not been burnished. Complete transitional heel form with a small round heel, slightly flared (Chester style). Imported fabric. Stem bore 6/64". Area XVIII, Context 269, SF887 (AE).
29. Pipe bowl of *c.* 1690-1720. Two joining fragments (fresh break) of a transitional heel form with a small round flared heel (Chester style). Imported fabric. Stem bore 6/64". Context 269, SF887 (AD).
30. Pipe bowl of *c.* 1690-1720 with a cut rim. Chester style bowl with a flared round heel and cut rim. Rather deep oval stem. Stem bore 6/64". Context 120, SF46.
31. Pipe bowl of *c.* 1810-1850 with a cut rim. Fairly crudely decorated bowl comprising leaves on the seams with enclosed flutes on the bowl sides. A relief moulded design at the rim imitates milling. Small, rather square spur, not trimmed. Stem bore 4/64". Context 204=112, SF892.
32. Pipe bowl of *c.* 1810-1850 with a cut rim and crude leaf decoration on the seams. The whole bowl has been badly burnt with the result that it has cracked and slightly warped after having been broken. Stem bore 4/64". Context 273, SF891.
33. Pipe bowl of *c.* 1860-1920 with a cut rim a moulded bowl mark reading TW in serif letters. These letters form part of the pattern of this particular style of pipe rather than being the maker's initials. Stem bore 4/64". Context 110, SF183.
34. Pipe bowl of *c.* 1780-1840 with a cut rim. The bowl fragment has a relief moulded stag's head facing the smoker, flanked by naive foliage/flower motifs. This design is typical of local decorated bowls of early 19th-century date. Context 324, SF893.
35. Small and abraded bowl fragment of *c.* 1850-1870 with quite thick walls and an incuse stamp with serif lettering facing the smoker. The stamp has serif lettering in three lines, the top and bottom of which are curved in opposite directions to form an oval; there is no border. The left hand side of the stamp is missing but the surviving text reads [THE] RESPIRATOR / [JA]NY 9 1851 / [REGI]STERED. This is the only known example of a design registered by Edward Upward of 51 South Moulton Street, London, W1, on 9 January 1851. Small sections of the rim survive in an abraded condition. This was probably plain and finished with a simple cut rim. Context U/S, SF897. Fragment illustrated as viewed by the smoker. Stamp detail illustrated at 2:1. National Catalogue Die Number 1762 (type example).
- 36-120 & 122. Group of pipes and other pipe-clay objects from a domestic rubbish tip, which was deposited *c.* 1860-1865. This group is important in providing a closely dated sample of the styles of pipe that were current at this period. The whole context group fully described and discussed in the above report. Context 69.
121. Pipe-clay object, probably of late 19th-century date. Context 110, SF182.

## Leather

### *Quita Mould*

## Methodology

When examined the leather had been conserved by freeze-drying, following a pre-treatment of glycerol (Cristanetti 2003). Species identification was made, where possible, using low power magnification (x3). Where the grain surface of the leather was heavily worn identification was not always possible. The distinction between immature (calfskin) and mature cowhide is not always easy to determine and the term bovine leather has been used when in doubt. Shoe sizing has been calculated according to the modern English Shoe-Size scale with the sole measurement

rounded up to the nearest size as necessary, continental sizing is provided in brackets. No provision has been made in the calculation for any shrinkage undergone since excavation and following conservation treatment (Cristanetti 2003, 3).

*Summary*

A small amount of leather was found in the fill 389 of a pit 382 attributed to Phase 2 (Fig. 4.26). It comprised shoe components of welted construction, a cut down panel of pigskin and three pieces of primary waste. The welted shoe components found, an insole of adult size 4 (37) with its matching heel stiffener, a fragment of shoe upper and a piece of middle packing, which might come from a single shoe. The shape of the insole is characteristic of shoes of mid-later 16th-century date. The height of the heel stiffener suggests the shoe was either a high cut shoe or ankle shoe, implying practical,

working footwear. Two of the shoe components have been cut up suggesting the shoe to be discarded cobbling waste.

Little can be said of the fragments torn from a cut down panel of pigskin save that the presumed retention of the usable area of the panel suggests it was salvaged for use in the refurbishment of other leather goods.

Three pieces cut from the edge of a cowhide or hides were also found; one had hair remaining, now black in colour. These pieces of primary waste, unusable areas of hide, have been cut off and thrown away during an early stage in the leatherworking process; either by a currier, a leather seller or a leatherworker. The currier might have trimmed the hide before selling it to a leather seller or directly to a leatherworker. The leather seller might have trimmed the hide when cutting it into smaller pieces for

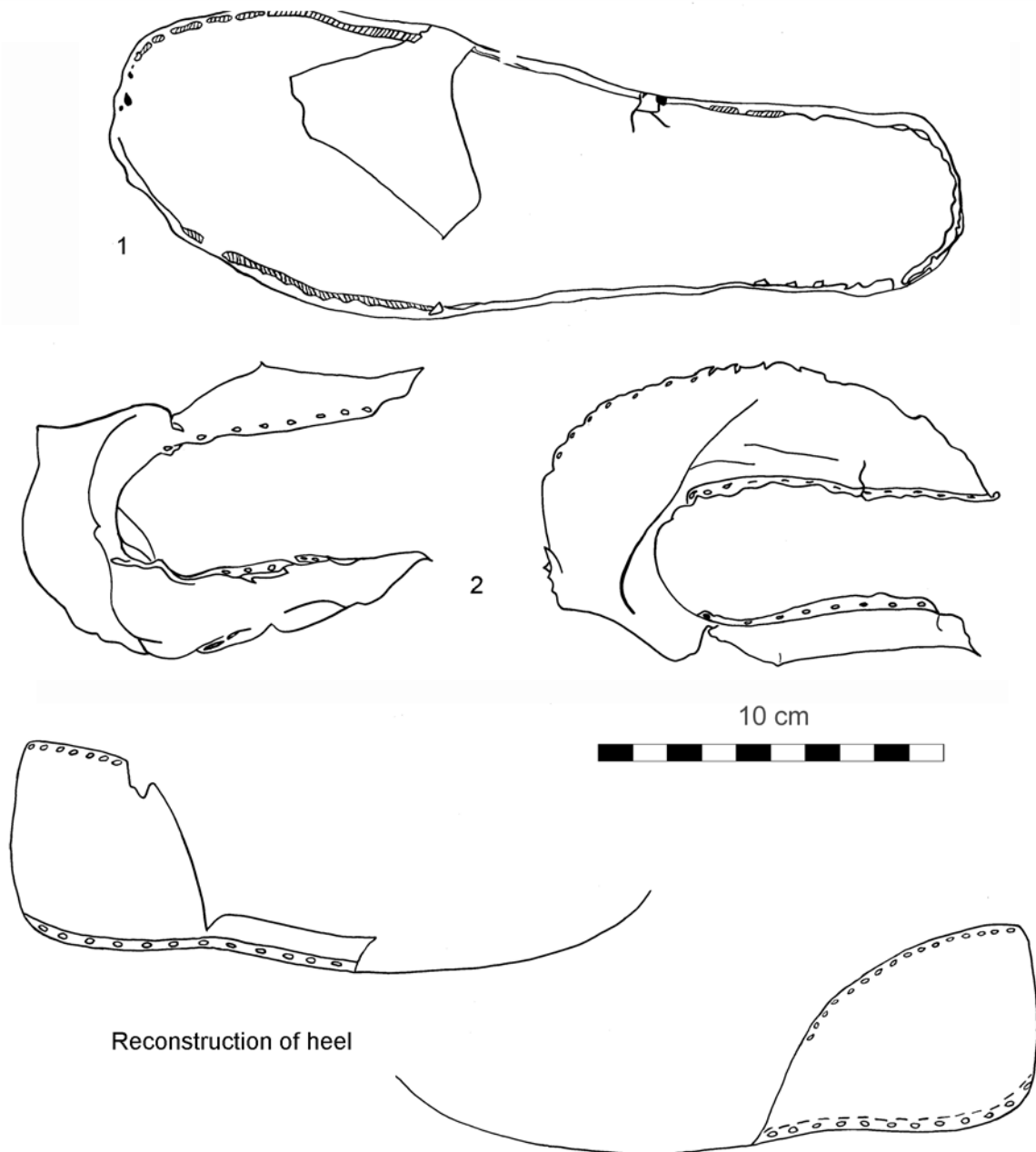


Fig. 4.26: Leather shoes from context 389

resale. The leatherworker might have bought an entire hide and trimmed off the edges himself, but it was more common for small-scale workers, who purchased leather by weight, to buy pieces of leather with the unusable areas already removed. Primary waste is regarded as waste from leather processing and, although found in too small a quantity to be significant, certainly indicates leatherworking. It may well be associated with the cobbling waste (detailed above) as cobblers were allowed to use a small amount of new leather when undertaking their repairs, though the amount was strictly regulated. It was the practice for tanners to sell the horn cores on the hides to the horners, so that a deposit of horn cores is indicative of horn-working waste rather than tanning. Discarded horn cores were sometimes used as a cheap building material and in urban areas pits filled with horn cores to provide drainage were used as 'soakaways.'

### Catalogue

All finds are from context 389, Phase 2, SF335.

#### Wetted shoe components

1. Complete **insole** for right foot. Round toe, petal-shaped tread swayed slightly inward, tapering slightly to a straight waist and seat. Foot impression visible on grain surface. Edge/flesh seam stitch length 8 mm. Leather cowhide. Length 240 mm, width tread 81 mm, waist 50 mm, seat 51 mm.
2. Matching large **heel stiffener** with un-moulded lasting margin, and whip stitching along top edge on the left side, cut away on the right side. Broken down by wear at centre back but height c. 40 mm suggesting a closed shoe or boot. Leather cowhide.
3. Two small fragments of scrap with all edges broken, likely to come from shoe **upper**. One is delaminated. The larger fragment is of bovine leather (calfskin/cowhide).
4. Shoe **upper** fragment with a straight, butted edge/flesh seam stitch length 5mm, four cut edges and a torn area. The fragment appears to be a side seam and area of throat. An area close to the seam is broken away and is likely to be the position of a buckle strap; two large stitch holes may be associated with the fastening strap. The sides have been deliberately cut off. Leather cowhide. Length 108 mm, width 80 mm, 3 mm thick.
5. Middle packing. Rectangular piece with three cut sides, the other is torn. Leather cowhide, compacted. Length 90 mm, width 39 mm, 1 mm thick.

#### Cut down panel

6. Length of panel with two roughly parallel sides and remains of a broken grain/flesh seam along one end, torn across the other. Broken about half way along its length where it may have been folded. Three other fragments from the same item but not directly joining. Leather pigskin. Length 376mm, width 73mm 1-2mm thick; length 90mm, width 80mm, 1-2mm thick; length 85, width 85mm; Length 41mm, width 35mm.

#### Primary waste

7. Triangular piece of waste with two lengths of hide edge and a cut edge. Leather cowhide. Length 234 mm, width 125 mm, 2 mm thick.
8. Piece of hide edge with a cut edge in one area, rest is torn.

Leather delaminating cowhide. Length 95 mm, width 57 mm, max. 5 mm thick.

9. Unusable area of hide with cut and torn edges and area of black hair present. Leather delaminating cowhide. Length 225mm, width 137mm, 3mm thick.

## Glass and Vitreous Materials

*Robert Philpott*

A total of 1831 fragments of vessel glass, window glass and vitreous waste were recovered during the excavation, weighing approximately 40 kg. Only the main diagnostic types are catalogued below.

Type	No. of fragments
Bottle	972
Vessel	41
Window	703
Vitreous waste	82
Indeterminate	33
<b>Total</b>	<b>1831</b>

Table 4.5: Glass from Big Lea Green Farm by type

A total of 703 fragments of window glass were recovered. They possess few diagnostic characteristics, so have not been analysed in detail and are not discussed further.

### Vessel glass

The earliest glass vessels consist of fragments of late 16th- or 17th-century 'forest glass', in clear green-tinged potash glass with numerous bubbles in the metal. They appear to be residual in context 77 which contains the most significant group of glass from the site, including both the earliest glass and the most complete wine bottle.

The earliest material is green 'forest' glass probably of late 16th- or 17th-century date, which consists of fragments probably from six vessels. Although very fragmentary, three main forms appear to be present. A pedestal base with folded foot is probably from a drinking vessel although the upper foot and bowl are missing, while a body sherd with mould blown wrythen decoration probably comes from a beaker or flask. The base of a jar or storage vessel lacks the upper body so the precise form is uncertain. Finally, there are fragments probably derived from the bowls of three goblets.

They are likely to be the products of the local south Lancashire glass industry from the late 16th or 17th century. Two key early glassworks sites have been excavated, at Bickerstaffe, founded by Huguenot glass-makers and in production around 1600 (Hurst Vose 1995), and Haughton Green, Denton, which was in operation from about 1615 to 1653 (Hurst Vose 1994). Other glass works developed at Warrington by 1650, and

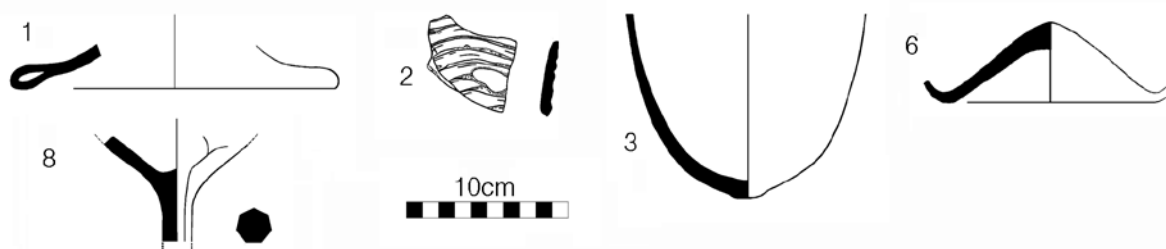


Fig. 4.27: 1-3, 8 Drinking glasses; 6 'Forest glass' jar

Sutton, St Helens (close to Lea Green) by about 1688 (Hurst Vose 2008, 360). A sizeable published collection of green 'forest' glass, from Norton Priory, Cheshire consists largely of drinking glasses and containers (Hurst Vose 2008). The majority there appears to have emanated from the Haughton Green and Bickerstaffe manufactories, and given the location of Lea Green which is only 15 km from Bickerstaffe, the same source appears to be likely for this material.

The development of lead-crystal glass in England by George Ravenscroft around 1675 resulted in the rapid adoption of clear flint glass across England. Glass manufacture in the early 18th century expanded to other areas of England, including Liverpool, Prescot, Warrington and St Helens in the North West (Charleston 1984, 109-96; Hurst Vose 2008, 366). The production of a wide variety of drinking glasses and other forms of glassware followed during the 18th century.

The assemblage from context 77 represents a substantial discard of usable vessels of early 18th-century date, but the hurried circumstances of excavation mean that some clearly later material was included alongside some residual medieval and 16th-century pottery. At Lea Green lead-crystal glass is represented by two drinking glasses, one with moulded rib, or gadrooned, decoration, which probably belongs to a *Roemer* or possibly a sweetmeat glass, dated 1685-1740, while the other is a fragment of drinking glass with a fluted stem and lower bowl, probably of the last third of the 18th century or early 19th century.

The surviving assemblage is too small to draw significant conclusions but it shows the small-scale introduction of glass in the late 16th or 17th century, utilising a small number of fine drinking vessels, and one small bottle or jar, probably from glassworks in the region. The adoption of fine table glass ware reflects the social standing of the Lea family during the 17th century, hinting at a degree of sophistication in taste which is evident also in the inventories. As early as 1612, the inventory of John Ley of Sutton recorded glassware although no valuation is given. There is an indication of the use of fine table ware in the 17th and 18th centuries, but the assemblage probably represents only a small proportion of the material originally in use.

#### Drinking glasses (Fig. 4.27)

Forms of drinking vessel current in the 16th-17th century included pedestal-based cups, with goblets of U-shaped form being the most common (Wilmott 2002, 57-62).

1. Outer rim of a folded foot of vessel, probably a pedestal beaker or drinking glass, c. 85mm diameter at base. Too little survives to determine the form above the base. There are parallels in late 16th-mid 17th-century forms (e.g. Bickerstaffe) where a flattened folded base rises to high pedestal on which the cylindrical beaker body is set, but such a small portion could also belong to a drinking-glass (cf. Wilmott 2002, 45-50). SF2258, context 77.
2. Moulded body fragment with parallel lines of optic-blown wrythen decoration. Similar diagonal moulded decoration occurs on pedestal beakers, flasks and other forms from production sites at Bickerstaffe and Haughton Green, showing this type was in production in the late 16th-earlier 17th century (e.g. Hurst Vose 1994, fig 10, no 41, 30, fig. 11, 57; 1995, 11, fig. 6.12). Cf. Wilmott 2002, Type 4.3 (wrythen ribbed beaker) or Type 20.3 (flask). SF2260, context 77.
3. Bowl of round funnel form from a plain goblet, in a clear green-tinged glass with numerous bubbles in the fabric. The glass is thin, less than 1mm thick towards the top. The rim, stem and foot are missing but the scar of the stem is evident on the base of the bowl. SF2257, context 77. Cf. Haughton Green: Hurst Vose 1994, fig. 10, no 53). Probably 17th century.
4. Two very thin body sherds (non-joining) from the same vessel, probably the bowl of a drinking glass. SF2261, context 77. Not illustrated.
5. Two similar very thin sherds in now 'frosted' pale green glass. SF2262, context 77. Not illustrated.

#### Storage vessel/jar (Fig. 4.27)

Jars are a common type in the 16th and 17th centuries. Plain cylindrical jars (Wilmott's Type 31) usually with vertical sides are described as the most common and recognisable form in glass in England (2002, 97). They are always in potash glass and are seen as purely utilitarian rather than for table use.

6. Storage vessel base; in clear green-tinted glass with numerous bubbles in the metal, a conical kick-up, and a pontil scar 11mm in diameter; 65mm diameter. It is impossible to determine the form of the body from the base. At Haughton Green a variety of bottle types was present, including straight-sided bottles and incurved

beakers (Hurst Vose 1994, 24; cf Hurst Vose 1995, 9, fig. 5.1), which are compatible with this base form.

#### *Lead/flint glass drinking vessels (Fig. 4.27)*

7. Angled body fragment from the lower bowl of a drinking glass, in almost colourless lead crystal glass; with the lower end of a single moulded gadroon visible (not illustrated). The diameter is difficult to determine but the decoration and angle suggest it is probably from the lower bowl of either a *Roemer* (or rummer) or a sweetmeat glass. Both forms are characterised by a broad bowl, often with gadrooned decoration around the base (cf. Sheppard and Smith 1990, fig. 22 – dated c. 1685; Thorpe 1929, Pls XXXI-XLI). Date 1685-1740. SF2263, context 77. [http://www.museumoflondon.org.uk/ceramics/pages/object.asp?obj\\_id=54662](http://www.museumoflondon.org.uk/ceramics/pages/object.asp?obj_id=54662)
8. Upper stem and base of bowl of drinking glass of septagonal fluted design; the wheel-cut flutes extend into the lower part of the bowl. Colourless flint glass. SF1276 context 328. Probably 1780-1825. Bickerton (1986, 15, 26) notes that vertical fluting on the stem becomes more common at the end of the 18th century and into the next century. Drawings dated to the 1830s from the Webb Richardson factory at Wordsley near Stourbridge show that a variety of fluted stems on wine glasses, including a plain conical version, were still being produced (Hajdamach 2003, pl. 32). The Museum of London has a complete vessel with less sharply angled junction between the stem and bowl (Mus of London Acc no. NN23922, dated 18th century).

#### *Wine Bottles (Fig. 4.28)*

A typology of glass wine bottles from the later 17th century onwards has been established through a study of the bottles bearing stamped seals, which often included the date alongside the owner's initials (e.g. Ruggles-Brise 1949; Noël Hume 1970; Dumbrell 1992). The position, shape and size of the string-rim, as well as the form and proportions of the neck, body and base, were all subject to consistent change through time, and correlation with dated examples enables features characteristic of different periods to be identified (Dumbrell 1992, 38-9).

A number of fragmentary wine bottles were recovered from a variety of contexts, some of which were clearly residual. The earliest surviving bottles at Lea Green used as containers for wine or spirits are of the squat onion form which dates to the early 18th century. A near-complete vessel was recovered from the infilled ditch (context 77, SF765). Some of the vessels recovered from context 77 may be referred to in the inventory of John Hawarden gent., dated 1715, which includes not only silver ware but also 'Glas bottells & provisions for ye hous' (valued at £2 10s). The more robust, and diagnostic, necks and bases survive best, but there are quantities of small body sherds which are less diagnostic of date.

9. Onion-shaped wine bottle (Fig. 4.28) with a short conical neck on which is an applied bevelled string-rim. The

base has a wide shallow kick. The pontil mark is visible on the base as an irregular off-centre scar, of partially white opaque glass. Translucent green glass. Ht 160 mm, maximum diameter of 155 mm. Almost complete bottle in six fragments, SF765, wt 695 g, context 77. The form is dated to c. 1700-20. The date is consistent with the dating of the ceramics and clay pipe from the same context (for comparable examples, see Hudson 1961; Noël Hume 1961; Philpott 1985c; Philpott 1986).

10. Base of early 18th century wine (onion) bottle. Context 26, SF1876. Not illustrated.
11. Neck and rim of onion bottle with uneven string rim, in clear green glass. Early 18th century. Context 278, SF1312. Not illustrated.
12. Base of early 18th century onion bottle, in clear green glass. Context 301, SF1478. Not illustrated.
13. Early 18th century wine bottle base only, in green glass, low kick up, few air bubbles. Context 221, SF913. Not illustrated.
14. Eight body fragments of a clear pale blue glass wine bottle, later onion bottle form with straighter sides than early form, probably 1710-1730. Context 273, SF976. Not illustrated.

The assemblage contains a number of fragmentary wine bottles which show the classic typological development into the 19th century. Late 18th- to early 19th-century wine bottles are represented by a number of narrow cylindrical bottles. Late 18th-century forms have the string rim set at the top of the bottle neck with a flat collar below (e.g. context 269, SF914a), and a lower body fragment which tapers in slightly towards the base and has a neat pontil scar is also likely to be of this date (context 269, SF914d).

Other cylindrical wine bottle forms with characteristic mould marks post-date the widespread adoption of three-piece mould manufacture after its introduction by Henry Ricketts of Bristol in 1821 (Dumbrell 1992, 115) (e.g. context 165, SF979 and SF981). The formation of the top of the neck becomes cone-shaped with flat collar attached below (Dumbrell 1992, 115-6), exemplified here by SF914b dated to 1820-40. By the late 19th century the top of the neck becomes a two-element rounded moulding (cf. context 165, SF914c).

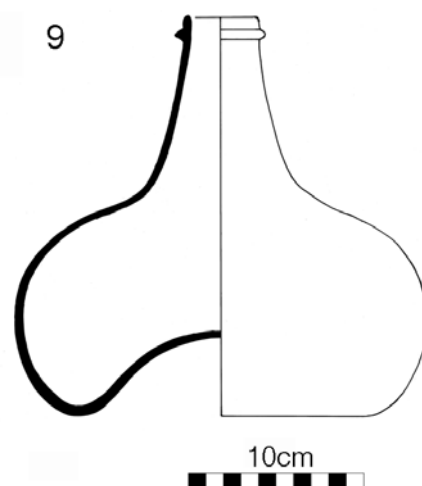


Fig. 4.28: Glass wine bottle, SF765

Context 269 contained a number of wine bottle fragments of the later 18th and earlier 19th century, but no complete profiles.

*Medicine bottles (not illustrated)*

Medicine bottles took on a great variety of forms from the 19th century, and in the early 19th century the introduction of hinged moulds which carried an inscribed or decorated plate enabled chemists to emboss their own names and details of contents on the bottles.

1. Octagonal base of medicine bottle, 19th century; mould made. SF914e, context 165.
2. Clear, small bottle for medicine or perfume. Pontil mark on base. SF1314, context 278.
3. Blue, clear, rim of small bottle (possibly medicine), laid on lip, seam down side and shoulder, mould-made. SF979a, context 165.
4. Blue, clear, base has seam along base, possibly a hinged mould, possible medicine bottle. Context 165, SF979b.
5. Blue, clear, base of egg-shaped bottle of Hamilton type patented 1814 and popular from the 1840s. SF979c, context 165.
6. Profile of small bottle, possibly ink bottle. Embossed '110' on the base. Seams on both sides of entire vessel. Rim either broken off or sheared lip. Probably 19th century. SF392, context 119.

*Other bottles (not illustrated)*

During the 19th century the increasing use of moulds led to greater standardisation and consistency in manufacture, and the range of bottle forms proliferated as the variety of uses increased dramatically, as containers for beers, spirits, patent medicines, poisons, mineral water and soda, sauces, and other household products.

Mould-blown bottles with inscriptions were used to advertise the wares of manufacturers. Big Lea Green Farm produced several inscribed bottles:

1. Blob-top cylindrical bottle in pale green glass, probably for soft drink or mineral water, reading 'HAYES & CONNING/THE HOLT/RAINHILL' in three lines; the base is embossed 'N +Co 2372'. SF239, context 63.
2. Embossed machine-made whole crown-top bottle, probably 20th century. Possibly for mineral water etc. (slightly small for milk?). Embossed on side 'H.C. GRUNDY' 'H.C.G.' 'ST HELENS'. Also on base 'F G C'. SF241, context 63.

Examples of milk bottles, which were introduced at the end of the 19th century but become more common after the First World War, along with soft drinks bottles and Codd bottles are all represented at Lea Green. In addition, a stopper of a Lea and Perrins sauce bottle was recovered from context 120 (SF465).

*Other glass objects*

Three glass 'marbles' were recovered from the site (SFs 906, 1229, 1812). They were probably used as stoppers in Codd-type bottles, a type current from 1875 to the 1930s (Hedges 2000, 14).

*Other glass*

The bulk of the 19th and 20th-century glass is not discussed further but the material is retained in the site archive.

**Vitreous industrial waste**

*A. C. Towle*

A number of irregular lumps of glassy waste weighing up to 2 kg were recovered from contexts dating to the 19th century or later. This material is black opaque glass with frequent gas bubbles and occasional stony inclusions. These were a sample of a much larger body of material, and the primary use of this material was for construction. Outside the area of excavation, a short length of 19th-century 'drystone' wall was built entirely of lumps of this vitreous waste. Initially considered to be waste material from glass production, subsequent research suggests that it is a waste product from copper smelting. This was a significant industry in St Helens after 1772 (see Chapter 5), and the slag from copper extraction was widely used as a building material (David Innes pers. comm.). A number of significant buildings in St Helens constructed from copper slag survive today, including St Peter's Church, Broad Oak Road, Welsh Chapel, Sutton Road, St John the Evangelist Church, Crossley Road and Holy Trinity Church, Traverse Street. It is interesting to note that there is some variation in the use of this material. In the Welsh Chapel, the slag has been cast into large rectangular blocks, making it easier to employ in construction. Elsewhere, the glassy material has been used as irregular blocks with roughly squared faces in the manner of flint nodules used in walling in southern and eastern England. Where used in the manner of flint, it is accompanied by quoining of brick or stone, often with horizontal lacing.

The glass and vitreous waste from the site represents a body of material which has potential for further study within the framework of a wider examination of these materials. It is beyond the scope of the current investigation to characterise chemically the glass from well-dated 17th- to 18th-century contexts. This would however be a useful exercise if undertaken alongside analyses of other examples in the region since it coincides with the emergence and transformation of the glass industry in the North West. Identifying compositional variability as the industry emerges would help us to understand the nature of the changing technology.

Similarly, it would be useful to examine the chemistry and microstructure of the copper smelting slags used as building material, in order to establish the nature of the material, its relative homogeneity, and have a reference point for material from future excavations in the area.

## Stone Architectural Fragments

*M. H. Adams*

A small group of architectural fragments (not illustrated) was recovered from the excavations, all in residual contexts. These are described in summary below. Unless described otherwise all are in locally quarried Keuper sandstone, predominantly fine-grained with few or no pebble inclusions. None of the fragments recovered were heavily weathered. All dimensions are approximate.

1. Unworked flagstone roof or floor tile. SF1954 context 197.
2. Section of window mullion, both ends broken. Chamfered moulding each corner. L 249 mm, W 185 mm, D 185 mm. SF1955, context 249.
3. Two joining fragments of complete window mullion section, lozenge section with traces of oval moulding on one corner. This had either worn away at one end or the object broke during manufacture. L 560 mm, W 145 mm, D 255 mm. SF1956, context 204.
4. Section of sandstone plinth with square sockets for 25 x 25 mm iron rails set at irregular intervals. Faint trace of the start of a new socket may suggest that this broke during manufacture. Late 18th-19th century? L 520 mm, D 290 mm, T 130 mm. SF1957, context 88.
5. Section of window or door jamb in pale yellow sandstone. Finely moulded with right angle return at terminus. Socket for iron glazing bar with lead fixing *in situ* on inner face. Deep diagonal tool marks on unexposed faces. L 570 mm, W 150 mm, D 190 mm. SF1982, context 249.
6. Badly chipped section of moulded string or drip course, possibly a hood mould from a window, door or other opening, possibly same as SF1985. It does not survive to its full original depth. Faint diagonal tool marks survive on the upper surface. L 300 mm, D 230 mm, T 80 mm. SF1983, context 18.
7. Section of moulded string or drip course, possibly a hood mould from a window, door or other opening. It survives to its full original depth suggesting a minimum wall thickness of 380 mm. Two sets of deep diagonal tool marks from a punch or axe survive on the upper surface. The upper surface and moulding retain thick patches of lime mortar which suggests that this fragment had been reused prior to deposition. L 340 mm, D 380 mm, H 90 mm. SF1984, context 18.
8. Chipped section of moulded string or drip course, possibly a hood mould from a window, door or other opening. It survives to its full original depth suggesting minimum wall thickness of 350 mm. Deep diagonal tool marks from a punch or axe survive on the upper surface. L 300 mm, D 350 mm, H 80 mm. SF1983, context 18.

## Discussion

Other than SF1957, which is likely to relate to a Victorian garden wall, all of the architectural fragments recovered are likely to have formed part of the pre-19th-century farmhouse. Unfortunately none is diagnostic of date in its own right, not least because such details remain relatively understudied in the region. However, in general most medieval vernacular buildings in the region are likely to have been timber-framed or of cruck construction with the use of stone being restricted to chimney breasts. The moulded fragments bear a superficial resemblance to mouldings observable on mid 17th-century buildings in the surrounding area (e.g. Rainhill Old Hall and Rainhill Manor House). Mullioned windows first appear on south Lancashire farmhouses from the mid 17th century and continued in use into the early 19th century (Pevsner 1969, 18-19). Surviving photographs of the farmhouse frontage show a building with timber-framed windows, consequently the fragments described above are likely to belong to the earlier building constructed in the mid-late 17th century.

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## 5: Discussion

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A. C. Towle

### Reconstruction of a 17th-century farmhouse

It is possible to draw together several strands of evidence and discuss aspects of the original farmhouse which was largely destroyed before the excavation commenced.

Evidence for the existence of the building comes from several sources:

- Archaeological deposits recorded during the excavation: there were significant, if heavily truncated foundations for a cellar and adjacent walls. They were constructed from re-used dressed sandstone blocks. Pottery recovered from within these walls dates to the 1600s giving a *terminus post quem* for their construction. The western limit of this building was respected by an east-west aligned ditch which went out of use by 1720, and most likely had been backfilled by the late 1600s, since it was sealed by a deposit containing clay pipes from the late 17th century.
- Maps dating from 1826, 1843, 1849 and 1891 show the location and demonstrate the changing form of the farmhouse. A single significant remodelling of the farmhouse can be identified to have taken place between 1849 and 1891. The first three of these maps show the farmhouse as a square block, the latter shows the farmhouse with several extensions which are evident in all later plans.
- An architect's drawing of the farmhouse from 1947 showing the entire ground plan and floor plans for a second and first floor of the post-1849 farmhouse. The upper storeys are located over the same square-shaped core which can be associated with the original building in the early maps.
- A probate inventory from 1715 which probably relates to this building lists the possessions of a John Hawarden room by room, giving a list of rooms on three floors (excluding the cellar) (see Table 1.4).

It is assumed that the cellar walls and fragments of other wall foundations relate to the original stone-built farmhouse at the site (contemporary to stone-built farm buildings elsewhere in the complex). There was probably a timber-framed precursor elsewhere in the vicinity, given that occupation debris from the 13th/14th century onwards was recovered, but no traces of contemporary buildings were identified. It seems reasonable to posit a 17th- (or less likely a very early 18th-) century foundation date for this building.

Is it reasonable to suggest that the square structure seen in the maps of 1826, 1843 and 1849 is the original building? And if so can we begin to reconstruct the general layout from the 1715 probate inventory?

There is no particular reason to expect the farm to have been remodelled immediately prior to the 1826 map: the absence of post-17th-century pottery from the wall foundation trenches would suggest an earlier rather than later date for their construction, since the concentrations of pottery increase over time from other deposits excavated on the site. The location of the square structure from the early maps corresponds directly to the core of the building on 20th-century Ordnance Survey maps, the architect's drawings and the foundations identified during the excavation, when all these elements are digitised and overlain. In the absence of cartographic or archaeological evidence for wings or extensions prior to the post-1849 changes, it is difficult to suggest an alternative form. It must be remembered that the massive truncation suffered during the post-war demolition may well have removed evidence for a radically different layout.

The excavated part of the earliest building consists of the cellar which underlay and defines the north east corner of the posited square structure (see Figs 2.9-13) and fragments of two east-west walls to the west of the cellar defining part of the northern side of the building and an internal wall (both of these terminated at their original western ends indicating the western limit of the building, which coincided with the various maps and plans). These building fragments can be correlated with the area under the 'pantry', staircase and 'office' from the 1948 architect's drawing (Fig 2.22). The internal walls defining the 'pantry' against the north east corner of the core can be correlated with walls 71 and 99 which were inserted into the eastern part of the cellar during the 19th or early 20th century. These internal walls also delineate a passageway from a side entrance to the house through the north-eastern cell into the 'kitchen' and 'scullery' which first appear after 1849. It is therefore suggested that the 'pantry' and corridor around it belong to the post-1849 alterations and should not be considered as part of the earliest building. Otherwise the central elements from the 1948 drawings can be considered to be representative of the ground plan of the original building.

The basic form of the early building is a classic example of a double pile plan: it is two rooms in depth (Brunskill 1978, 112-3, fig. d). This form first appeared at the beginning of the 17th century, but had spread to all parts of Britain by the mid 18th century. The basic layout of this type of house is a four-room floor plan as seen here, with a principal living room, a private room, a kitchen and another service room such as a dairy or

pantry (Brunskill 1978, 112-3). The staircase is located to the rear between the two subsidiary rooms. The front door was located centrally on the front elevation, giving a 'double-fronted' effect. The fireplaces were located in the partition wall on the eastern side of the building, and in the western end wall: although the latter is not necessarily an original feature since this detail is from the plan alone, and fireplaces tended to be either in partition walls or end walls. Brunskill states that fireplaces rather than smoke hoods were not adopted in the North and West until the late 18th century (Brunskill 1978, 119).

The footprint for the building covers an area of 104.7 m<sup>2</sup> (i.e. 9.48 m north-south, 11.04 m east-west). With three floors suggested by documentary evidence, this would equate to a total floor space of approximately 314 m<sup>2</sup>. This places the building within the range of other freehold farmhouses recorded in the North West: 17th-century buildings surveyed in the Greater Manchester area can be classified according to their total floor area into the categories of manorial halls, freehold farmhouses and tenanted farmhouses (Nevell and Walker 2002, 1-9). Perhaps unsurprisingly, the wealthier class of individuals in the scheme (lords and manor holders) are associated with the greatest floor area (1000+ m<sup>2</sup>) in great hall buildings with extensive ranges of two-storey buildings set around a courtyard. Buildings with between 250 and 800 m<sup>2</sup> floor areas tended to take the form of a hall with one or two cross-wings and these were lesser hall sites and freeholds such as might be occupied by a yeoman. The buildings with a floor area less than 200 m<sup>2</sup> were all tenanted land, typically two or three bay buildings with two storeys and occasionally an open hall (Nevell and Walker 2002, 5). Clearly the floor area of the 17th-century farmhouse at Lea Green is consistent with what might be expected of a yeoman farmer. The building form however is not the older style of hall with wings, but of a type of building with greater numbers of rooms, with specific functions. This shift in towards the subdivision of living space has been noted as having taken place across the North West during the 17th century (Nevell and Walker 2002, 5, 15-24 and refs).

Since none of the superstructure of the demolished farmhouse survived, it is not possible to establish how much of the earliest building's fabric was retained within the later building. Photographs of the last farmhouse from c. 1950 show the main south-facing façade without its earlier mortar render, exposing 19th-century brick work. Unfortunately, the earliest foundations for this wall did not survive, so it is not known whether or not the later brick wall sat on an earlier sandstone foundation. The absence of early (i.e. 17th- or early 18th-century) brick fragments from garden soils suggests that the post-1849 remodelling of the farmhouse did not involve the destruction of an early brick building. This would imply that the farmhouse had a superstructure constructed out of timber or sandstone.

## Big Lea Green Farm in an Industrial Setting

Whilst Lea Green Estate remained an arable farm until its acquisition by Somerfield plc from the Sherdley Estate in 2002, the surrounding area underwent a massive transformation from the 18th century onwards. At the time of the development in 2002 Big Lea Green Farm was located within a diverse landscape, adjacent to the traces of both historic and contemporary industries. A brief account of the industrialisation of the setting is set out below.

### *Coal Mining*

Coal mining was a primary activity in the industrial development of the St Helens area, and key to the transformation of the landscape from a sparsely settled rural environment to the heavily industrialised, densely populated region known since the 19th century. Sutton is located on the south-western tip of the Lancashire coalfield and the extraction of coal from common land at Sutton Heath is first documented from 1540 (Barker and Harris 1993, 7). This was not an isolated activity and the widespread 'getting' of coal in the general area is known from the 1520s onwards (Prescot 1521, Windle 1610, Parr 1655, Eccleston 1660: Barker and Harris 1993, 7-9). The location of coal resources at Sutton Heath was accidental to the excavation of clay pits for pottery production, highlighting a second significant industry in the development of the area. One of the earliest large mines in the St Helens area was located within Sutton at Thatto Heath, to the north of Lea Green: the colliery was founded in 1690 by Sutton Yeoman John Shaw and an unnamed 'Cheshire Gentleman', which yielded £4000 worth of coal in 1718. This particular mine was subsequently expanded after 1770 as canal and steam technology facilitated the extraction and transport of coal out of the immediate vicinity. Massive expansion of coal extraction occurred during the mid 19th century to meet the increasing demand from both local industry, the steam ship trade in Liverpool and the export market, especially to Ireland (Barker and Harris 1993, 193-200). The nearest colliery to Big Lea Green Farm was the adjacent Sutton Heath and Lea Green Colliery west of Lea Green Estate, which closed in 1964. The massive spoil tip to the south of the colliery was reworked in the 1980s reducing the volume of the waste tip.

### *Transport: roads, canals, railways*

The route to Liverpool was a dominant factor in the initial development of industry in the St Helens area. The demand for coal in Liverpool to supply the salt refiners, sugar bakers, potteries, glassmakers and growing domestic needs, in addition to distribution beyond the port, was greater than the carrying capacity of the road infrastructure during the first half of the 18th century. In 1754, the Corporation of Liverpool commissioned the survey, and eventually the canalisation of, the Sankey Brook, which opened in 1757. This canal runs south and west of Sutton, linking

the centre of St Helens to the Mersey, but nonetheless was instrumental in opening up the coal field to the west of Prescot, increasing the importance of the mines in Sutton (Barker and Harris 1993, 11-23, 27). The ability to move large quantities of material into as well as away from St Helens encouraged the establishment of high-temperature industries in St Helens.

The Liverpool-Manchester railway was constructed during the period 1826 and 1830, and it bisects the estate associated with Big Lea Green Farm: although incomplete at the time of the 1826 survey of Michael Hughes's estates, the parcel of land sold to the railway company is clearly marked (see Fig. 1.4). Another railway was constructed to the east of Lea Green in 1833, running north-south between the centre of St Helens and the Mersey at Runcorn.

The railway further encroached upon the Lea Green estate with the acquisition of land for a station at Lea Green and the construction of adjacent cottages (Fog Cottages). A branch line was also added to service the nearby Sutton Heath and Lea Green Colliery. In 1903 there was a documented dispute between the railway company (London and North Western Railway Company) and the tenant at Big Lea Green Farm (William Rimmer) who had backfilled ditches adjacent to the line which belonged to the railway (unpublished archive material at Estate Agents in St Helens).

The most recent element of transport infrastructure to be built in the vicinity of Lea Green was the A570. This road runs north-south through the western side of the estate, linking St Helens to the M62 motorway. Constructed in two phases, the first part from the motorway to Eltonhead Road opened in October 1993, and the subsequent stretch into the centre of St Helens was completed in 1994.

#### *Glassmaking*

Glassmaking continues to be the most famous industry in St Helens but has left only minor traces in the area of Lea Green. The earliest post-medieval glassmaking in the Merseyside region was documented at Bickerstaffe in 1600 (Hurst Vose 1995). However the industry remained on a very small scale, with only two other documented glasshouses during the 17th century: one in Warrington and the other thought to be in the Sutton district of St Helens (Barker and Harris 1993, 108-10). A glasshouse is mentioned at Thatto Heath from 1721 onwards. The production of glass in the St Helens area

continued on a small scale prior to the establishment of the plate glass factory at Ravenhead in 1776. The arrival of the industry is related to the adoption of coal as the principal fuel for glassmaking, replacing wood, although mass production of high quality glass was constrained until the introduction of the covered pot in the 1790s by Robert Sherbourne. The impact of this industry on Lea Green is rather marginal, yet there remains tentative evidence that early glassmaking was undertaken close by; Glasshouse Farm lies 1km to the east of Big Lea Green Farm, off Lowfield Lane.

#### *Potteries*

Presence of clay suitable for production of pottery is one of the key natural resources of the area, especially the fire clay adjacent to the coal measures which is suitable for making refractory material for the high temperature industries. Earthenware pots were in great demand in Liverpool during the 18th and early 19th centuries for use in the African trade and the Sutton Heath Pottery produced stonewares specifically for the African market during the 19th century (Barker and Harris 1993, 128-30). Two of the five principal 19th-century potteries were adjacent to Lea Green: Swaine's at Sutton Heath (later Sutton Heath Potteries?) and Thomas Grace's at Marshall's Cross. Roughdales brick and tile works was in place before 1869 (Barker and Harris 1993, 370), and continues in existence today. The vast clay quarry pits mark the landscape to the south and east of Big Lea Green Farm, and have subsequently been used as land-fill sites.

#### *Copper industry*

The Warrington Company first brought copper smelting to St Helens, with the establishment of the Stanley Works at Black Brook (north-east St Helens) in 1772. The location of this plant was close to the coal fields for fuel and adjacent to the Sankey Canal, for the import of the ore from mines in Anglesey, and movement of the metal goods to Liverpool to facilitate the African trade (Barker and Harris 1993, 76-8). A smelting works was subsequently established in Sutton at Ravenhead by the Parys Mine Company in 1780. Whilst the location of this company was some distance from Big Lea Green Farm, the success of the smelting enterprise was significant: the manager of the newly established works was Michael Hughes, who subsequently built a huge business empire with large land holdings, which included the addition of the Lea Green Estates into the Sherdley Estates in 1807.

## 6: Conclusions

*A. C. Towle*

This is the first large-scale excavation of a late/early post medieval yeoman farm in Merseyside, and represents a detailed description of the development of such an establishment through to the 21st century. The only other such site to be investigated in Merseyside to date is ‘Pool’s House’, Formby (Adams 2001), though that was confined to an evaluation exercise. In addition the site had suffered from very extensive 20th-century disturbance. Typically small-scale farms such as this have been neglected, and it is a useful reminder as to the potential of work to illustrate a key component in the shaping of the post-medieval landscape in the North West.

Although the settlement turned out not to be a medieval moated farm, the excavation established that the farm had origins much earlier than the standing 18th-century brick barn and the indications of map evidence suggested. Clearly, post-medieval farms which were not moated are also significant; in terms of numbers they are likely to have formed the dominant component of the landscape between the 14th-18th centuries, prior to the industrialisation of the region. However, although settlements of this type are likely to have been the commonest, they are currently the least understood. Regionally archaeologists have assumed that these relatively low status sites are difficult to detect because of the paucity of artefactual evidence associated with medieval settlement in the area. This project has shown that although farms having occasional or fragments of 18th- and 19th-century buildings alone are not necessarily considered worthy of archaeological investigation, they can have much earlier origins, with occupation from the medieval period onwards. This excavation will inform the regional research agenda, and has demonstrated the value of investigating such farms.

Unfortunately extensive re-modelling of the site during the 18th, 19th and 20th centuries disturbed the evidence for earlier occupation. Although the ceramic evidence strongly suggests that the site was occupied from at least the 14th century (the earlier medieval period is generally considered *aceramic* in this region so the absence of earlier finds does not prove that the site was not occupied) this generally occurred in secondary contexts. Some of the masonry blocks used in 18th- and 19th-century structures were clearly re-used from earlier buildings, large fragments of door jambs and mouldings for plinths or string courses were present. These are difficult to date stylistically but are

likely to be 16th or 17th century in date. It is of course possible that these were imported to Lea Green from elsewhere, though given the substantial construction employed for the cellared room it is equally likely that they originated from a building demolished on the site in the 17th century. Few medieval or post-medieval buildings have been investigated archaeologically in the region; consequently building techniques remain poorly understood. However, those investigations which have occurred (e.g. Ince Manor: M. Adams, in prep.) suggest that even very substantial buildings were constructed with very shallow or no foundations. Cruck constructed buildings may leave no below ground traces (Addyman 1981). Consequently although no direct evidence was found it is likely that the site contained at least one stone built, or partly stone built structure, probably the farmhouse. Other, probably less substantial, structures are likely to have been present, though it impossible to be sure of their nature.

The evidence from the waterlogged pits provides invaluable evidence for the nature of craft activities on early post-medieval sites of this type. Currently these are understood almost exclusively from documentary sources such as wills and other legal documents. By their nature these represent a very partial record of contemporary activities, consequently the discovery of direct evidence for such craft activities will significantly enhance our understanding of the domestic economy of these sites.

The gradual attrition of post-medieval farm buildings to small-scale development (such as conversions into apartments or construction of new barns) means that there are few opportunities to fully investigate the small-scale farmsteads, which were so important in the formation of the late and post-medieval rural landscape. Whilst surveys of standing structures are becoming a more common requirement ahead of development, this project has demonstrated that there can also be an associated below-ground archaeological potential. Our capacity to reconstruct farms in the future will be severely constrained by the losses to the resource currently being sustained.

The outstanding pottery assemblage recovered from secure contexts during the course of the excavation will provide a benchmark for future excavations of all contemporary sites in the area, and an important research resource in its own right. The clay tobacco pipes are also a very significant find, representing a large body of material which will provide an important reference point for future pipe studies.

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## Abbreviations

BAR	British Archaeological Reports
CBA	Council for British Archaeology
Lancs RO	Lancashire Record Office, Preston
MPRG	Medieval Pottery Research Group
NA	The National Archives, Kew
NMGM	National Museums and Galleries on Merseyside (since 2003, National Museums Liverpool)
NML	National Museums Liverpool

## Appendix A: Historical Documents Relating to Lea Green

### 1. Will of John Ley[e], Yeoman, of Sutton, Lancashire 22 August 1612, Lancs RO WCW

'In the name of god Amen the xxijth [22nd] Daie of August Anno Domini 1612 I John Leye of Sutton in the Countie of Lancaster Yeoman, Feeling my bodie weakened of late, and decaying and kn[ow]ing] deathe to be Certaine and the decaye and howre theare of to bee most uncertaine, yet of good [and] p[er]ffect Remembrece, I praise god, Thereffore doe make this my Last Will and Testamente in [manner] and Forme as Followthe first I give and Committe my soule to My lord god Almighty who gave it w[I]th all other his blessed gifts and benefitts [and three further lines of spiritual blessings]

And my bodie or rather a Rottene dungehille to bee buried in the Churche yarde of Prescotte wheare my Friends shall think Conveniente, And as For those temporall and Transitorie goods, which my Lord and God hath sente me heare to use for a tyme in this world, duringe his good will and pleasure, I am as readie and willinge to leave them to the world, as ever I have ussed and enjoyed theme. Firste theareffore I doe give to the Freescole of Prescotte X<sup>s</sup> [10 shillings], Lykewysse I give to my wyffe all the glasse and seelinge tables standing upone Frames, in the house and p[ar]ler together w[I]th the Joined stooles cheares, & Iorne grate in the p[ar]ler, lykewysse one great Cheste in the house, and a nother in the ketchine for and duringe her naturalle lyffe. And after her decease to remaine to my brother Hughe Leye and to theirs Males of his body, Lawfully begotten, or to be begotten, and For wantof such issue then to Roberte Leye, son of Richard Leye, my brother deceased. Ite[m] I give to my Ante Margaret Weod of Kennionne widowe one Cowe, I give to the poore of Suttone, XX<sup>s</sup> [20 shillings] not to Remaine in stocke, but to bee bestowed up theme beffore St Thomaes daye nexte beffore Christmas some ffewe daies [December 21st was traditionally the feast of St Thomas the Apostle] and to the poore of Prescote Rainhill and Whiston etc X<sup>s</sup> [10 shillings], Ite[m] I give to my Cosene Bryane Leye my birding peece, spurres, and wheather of my sadles hee lykethe beter. And lykwyse I give to John Leye my Tennante the other saddle. Ite[m] I give the said John Leye my best doublett, my beste breeches and my horsemans Cote, Ite[m] I give to Robarte Cowleye my servante my Fustiane breeches, Ite[m] I give to Richard Rylands my Lovinge Neighbour and Frend my Clocke and my beste hatte, w[I]th the double Oypresses [? Cypress- soft light fabric], And all the Reste of Myre Apparrell whatsoever, which I have beene accustomed to weare, I give to William Channer, John Woodcocke, William Suttone and Richard Stringfellowe, equallie to bee divided emonge them, saveinge y<sup>t</sup> I would have one paire of hose, and shoes, of the best to bee geeven to

old Margaret Waltone. It[e]m I give to John Holland my godsone vj<sup>s</sup> viij<sup>d</sup> [six shillings eight pence] Ite[m] I give to Hughe Leye my godsone vj<sup>s</sup> viij<sup>d</sup> [six shillings eight pence] Ite[m] I give to Raphe Fenneye my godsone, vj<sup>s</sup> viij<sup>d</sup> [six shillings eight pence], Ite[m] I give to Margaret Leye my godaughter vj<sup>s</sup> viij<sup>d</sup> [six shillings eight pence] And I doe give to the Reste of my godchildrene everieone ij<sup>s</sup> [two shillings] ite[m] I give to my servantes w[hi]ch shelle happene to dwelle w[I]th mee at the tyme of my departure everie one ij<sup>s</sup> [two shillings], Ite[m] I give to old Elizabethe Brooke one windle of Barleye Ite[m] I give to my Brother in Lawe Roughleye ?one] younge Nagge Three yeares owld nowe past, Ite[m] I geeve to my Cossene John Ditchfield of Dyttone those of my bulle Calffes whether maye bee better to his Lykeinge, And Further it is my will and full mynd y<sup>t</sup> all the afforesaid legaties my Debts Funerall expenses probatione of my Wille and what els soever to be takene and Discharged of my whole goodes, and the Reste to be divided into twoe equalle partes or portions wheare of I give thone halffe to Richard Roughleye, and the other halffe to Ellin Leye my supposed daughter which wee have brought uppe of a Child, And finallye it is my will and mynd to make Choice Constitute and ordaine my Lovinge and trustie frend John Ditchfield of Dyttone gentlemene my sole and onlie executer, Nothinge doubtinge at all hee will execute this my Laste wille.

And yet althoughe Forgottene, this is my Will and Mynd which I would have p[er]fformed as well as the Reste, viz: that y<sup>t</sup> the above Named Elline Leye doe Marrie and take to her husband William Tunstall brother to Edmurande Tunstalle of this Towne of Suttone Yeomane, That then the goodes w[hi]ch I have bequeathed unto her to be utterlievoide and her to have noe p[ar]te thearof, but in such Casse the goode to Remaine to the Children of my brother Richard Leye of the Strand deceased

By me John Ley

Debts oweing to me John Leye

Imprimis Bryan Haywood of Parr xvj<sup>l</sup> xvj<sup>s</sup> viij<sup>d</sup> [16 pounds, 16 shillings and 8 pence]

It[em] Robart Rosbothome for barlie malte l<sup>s</sup> [50 shillings]

It[em] as Executer to Thomas Eltonhead I have laid out of myne owne moneye occt<sup>s</sup> [? 8 shillings] and about my surereyte vijs or theare aboutes as maie apere by my accounte and I have a bond for xxvij<sup>l</sup> [27 pounds] odd [? ode] money owe as Executer to Thomas Eltonhead and a bill for v<sup>l</sup> [5 pounds]

By me John Leye

Made and published as the Last wille of the w[I]thin named John Leye the 9th daie of September An[n]no Dom[ini] 1612 in the presence of us

John Ditchfield

William Alcock

Richard Roughley

Edward Justyce

**2. Inventory of John Lea of Sutton, Lancashire, taken on 31 January 1623/4**

A true and p[er]fect Inventorie of all the Good[e]s Cattells and Chattells of John Lea late of Sutton in the p[ar]ish of Prescott & County of Lan[caster] praised by John Lea Henry Ashton, Arthur Winstanley Rob[er]te Barnes the last day of Januarie 1623

Imprimis three kyne [cows]	£6	8s	4p
It[e]m one nagge [saddle horse] and one Mare	£3	10s	
It[e]m Corne in the barn e	£4	10s	
It[e]m in haye		25s	
It[e]m in Carte[s], wheeles plowes tresse			
One saddle and brydle		43s	
It[e]m in brasse		12s	
It[e]m in Pewter	10s		
It[e]m in beddinge		56s	
It[e]m in napery		28s	4p
It[e]m in sack[e]s & pookes [bag smaller than a sack]	3s		
It[e]m in cloven tymber		4s	
It[e]m in Bedstock[e]s		19s	
It[e]m in Coffers [strong box]		6s	
It[e]m in Supbord[e]s dishboard & sawed board[e]s	16s		
It[e]m in Cowp[er]ie ware [wooden vessels made by a cooper]	4s		
It[e]m in treene [wooden] ware			18p
It[e]m in Chaires stoles and cushions		2s	
It[e]m in Iron ware		27s	
It[e]m in earthen Pott[e]s	5s		
It[e]m wiskett[e]s Syves			18p
It[e]m in Poltrie	3s	6p	
It[e]m in Ladders & Brak[e]s [toothed implement for dressing flax]	3s	6p	
It[e]m in stone troughs & one Cheese presse	3s		
It[e]m in Fuell		3s	
It[e]m in Salt fleshe and oth[er] meale		20s	
It[e]m in bark [leather] clothes		26s	8p
It[e]m oweinge to the decedent	£13	12s	
	Summa inde	£45	6s 4p
Debt[e]s oweing by the decedent	£18	13s	4p

### 3. Inventory of John Hawarden of Sutton, Lancashire, taken on 10 May 1715 (Lancs RO)

A true and perfect inventory of all the goods and Chatles of John Hawarden of Sutton Gentleman deseised valu[e]d and Aprased by us who are hearin subscribd In manor and forme as followeth the day and year first above written

Imprimis Three Horses own mare two galliways	}£22	00	00
Item and two Coultis			
Item Eleven Cows own Bull	£33	00	00
Item two Heffers three Calfes	£4	00	00
Item twoo Hogs	£1	10	00
Item forty measures of oates sixty Mesurs of			
Barley six mesurs of wheat	}£12	07	04
Oats growing	£6	00	00
Item sacks and windowsheet sives halfe mesure			
And an ould arke in the Barne	}£00	15	06
Item in the shipons sows and frampotts	£00	02	00
Item in Carts and Wheelles plows and Harrows and Hors Geeres	£4	10	00
Item in stable Chamber an ould Mault			
Mill own pair of bed stockes a Joynery Bench			
& other od things	£00	15	00
Item in Poultry	£00	10	00
Item in the Hay bay twoo ould Chests own load			
Of Hay pithforks & arkes spades			
Hachelbrearhook	}£00	19	08
Item in Ladders and stone trofes	£00	10	08
Item in the Bruehous own brewing pan own boyler and od things	£3	15	00
Item in the buttery Chambre Garret own pare			
Of bed stoks twoo fether beds three boulsters			
Rugs and blanketts own Cheare own Pillow own Chese	}£3	00	00
Item in ye Kichen Chambre Garett 3 pare of bed			
Stocks 3 fether beds & boulsters Rugs & blanketts own			
Pres 2 cheares own looking glass	}£4	02	06
Item ith Hall Chambre Garret 2 pare of bed stokes 2 fether			
Beds 3 pillows & boulsters blanketts and rugs twoo			
Chests twoo Chears	}£2	15	00
Item in ye Parlor Chamber own pare of bed stockes and			
Hangings own boulster own pillow twoo blanketts			
And rug	}£1	00	00
Item ith Hall Chamber own pare of bed stockes & hangings			
Own fether bed twoo boulsters own flock bed and			
Quillt Eight Chears twoo stools own Chest of			
Drawers own Looking glas own table own grate			
[?] [?Chear] and close stoole	}£12	00	00
Item in ye Kitchen Chamber own pare of Bed stockes own			
fether bed twoo boulsters 3 pillows flock bed blanketts			
Rug and hangings 7 Chears own Couch Chear			
Own Little box own trunck Close stoole grat			
Fender fireshovell and touns	}£4	17	06
Item in ye Buttery Chamber own pare of Bedstockes and			
Hangings own fether bed twoo boulsters own pillow			

Blanketts and Rug own Chest own Chear own			
Great fire shovle and tongs	}£2	10	00
Item in the old Parlor Chamber own pare of bedstocks			
Own fether bed 3 boulsters blankett and Coverlett			
Two Chears	}£2	00	00
Item in the old end Chamber own pare of bedstock own			
Fether bed two boulsters blanketts and Rug			
And od Lumber	}£1	00	00
Item ith old Parlor two chests own tabl maden & grate	£00	12	06
Item in ye Hall own ovell Table own side table ten			
Chears and grate Pictors and Maps	}£2	05	06
Item in ye Buttery two old Chests own pres own Little table			
Mugware and white mettles sives and shelves	}£00	12	06
Item in ye Kitchen own dresser own Chest two tables			
Six Cheares fower stooles and Pewter	}£5	16	00
Item three Brass potte two pans own posnet own			
Kettle two Little pans fowar bras Kandlesticks			
Own bras Chafeing dish own warming pan			
Two brass morters	}£2	09	00
Item Jack spitts Grate firehovll tongs and other			
Little iron things & Jack weights	}£1	10	00
Item in the Parlor two ovell Tables own old Chear			
Own Looking Glas own Grate fire shovle			
And tongs Pickrs and own Gun	}£1	05	00
In silver plate	£7	10	00
Item in Glas bottells & provisions for ye hous	£2	10	00
Item in Linnen	£6	08	00
In Wareing aparill & saddles	£6	00	00
The remainder of the Lumber	£00	13	04
Item in Colles	£20	00	00
Item in Pott Clay	£1	10	00
Item in Cash & debts	£30	00	00

[Endorsed]

John Hawarden  
Inventory

Th[mas]: Holland  
Henry Foster  
Thomas Taylor

Randill RP perpount  
His marke

[at foot of sheet] [?] d<sup>oo</sup>. con<sup>e</sup>. Catherin Hawarden vidt huis [?] Defunct  
Obig Thom[as] Taylor de Burtonhwood in Com Lanc<sup>d</sup>. Go [?].

**4. Will of Catherine Hawarden, widow, of Sutton, Lancashire, March 6, 1718/19 (Lancashire Public Records Office WCW)**

In the name of God Amen I Catherine Hawerden of Sutton in the County of Lancaster Widow being in good health of body and of sound and perfect memory praised be almighty God for the same but calling to mind the infirmity of this mortal life and being desirous as much as in me lyes to settle my concerns in the world so as to preserve quiet and peace in my family and make the best provision for them that I am able do make ordaine and appoint this my last Will and Testament in manner and forme following Hereby first rendering my Soule into the hands of Almighty God assuredly trusting through the merits of Jesus Christ my redeemer to inherit everlasting life and my body to be decently buried att the discretion of my Executors herin after named And my Will and mind is that my debts funerall expenses and the charges of the probate of this my last Will and Testament shall be taken out of my whole estate And in the next place I give and devise unto my son in law Richard Richardson and unto Thomas Golding of Hardshaw within Windle in the said County Gent[leman] the sume of twenty pounds and whereas by indentures of Lease and Release beareing date respectively the thirtieth and thirty first days of May in the year of our Lord God one thousand seven hundred and fiftene I have amongst other things conveyed unto Thomas Taylor of Newton and Edmund Taylor of Bold in the said County Gents and their heires All that Messuage and Tenement with the appurtenances lyeing and being in Sutton aforesaid now or heretofore called and knowne by the name of Ackers House and Tenement and also the closes of Land meadow and pasture thereto belonging and therewith usually held and enjoyed now or heretofore comonly called and knowne by the severall name and names of the nearer meadow the Kiln Hey the Sand Hey and the lower meadow and also al those four closes of ground called the little rough dales lyeing and being in Sutton aforesaid to and with the said Messuage now held and enjoyed All which said premises containe by Estimation thirteene acres of Land of the largemeasure there used or thereabouts Upon trust that they the said Thomas Taylor and Edmund Taylor and their Heires should sell and dispose of the same and by and out of the money thereby to be raised should and would in the first place pay or cause to be paid the Sume of two hundred pounds for which the said premises were mortgaged unto William Clayton Esquire and after the raiseing thereof then that they the said Thomas Taylor and Edmund Taylor should by and out of the money to be raised by the Sale thereof and by and out of the issues and profits of other Lands therein mentioned which I hold for my life only imploy and dispose of the same for the raiseing of the two hundred pounds a piece to and for the use of my Children Bryan, Ann, Thomas, Katherine, William and Mary Hawerden, to be equally divided amongst them and so proportionably untill the severall sumes should

be raised and paid and after the raiseing and paying thereof to and for the maintainence and education of the younger Child or Children of my Son John Hawarden deceased other than his Heires att Law as by the said Indentures may more fully appear. Now I do hereby ratifye confirme and devise unto them the said Thomas Taylor and Edmund Taylor and their Heires all and every the said premises to the uses Intents and purposes in the said Indentures mentioned And in case it shall happen (as is very likely it will) that the said Sume of two hundred pounds a piece shall not be raised out of or by the said virtue of the said Indentures my Will and mind therefore is that all the residue of my Estate whatsoever both reall and personall above payment of my debts shall be by my Executors hereafter named applied towards the advancing and making up of the said Sume of two hundred pounds a piece as far as the same will go and to be equally divided to and amongst my said Children And whereas I together with my said Son Bryan Hawerden did borrow and take up att Interest of and from said William Clayton the said sume of two hundred pounds to and for the only use and benefitt of my said Son Bryan though I have given my said lands in security for the same and whereas my said Son Bryan Hawarden towards my Indemnity and Counter security hath assigned over to me the Sume of one hundred pounds which stands charged upon other Lands for his life by virtue of some Settlement made by my late father Bryan Lea deceased now I do hereby further declare it to be my Will and mind that my said son Bryan shall not receive anything hereby given or bequeathed untill such time as he shall have paid off by and with the said Sume of one hundred pounds and otherwayes the said Sume of two hundred pounds and Interest for which the said premises are mortgaged as aforesaid thereof shall have paid the same unto my Executors hereafter named for the uses aforesaid But nevertheless it is my Will and mind that if I should make any provision for any other of my said Children whilst I live that then and in such case such provision shall be taken for and as part of the said severall Sumes of two hundred pounds a piece hereby intended for them respectively aforesaid and if it shall happen that the said Sume of two hundred pounds a piece hath or shall be raised and paid unto my said Children by any of the wayes and meanes aforesaid that then and in such case the residue of my Estate shall go and be equally divided to and amongst the Children of my said son John Hawerden deseased except such of them as shall be heire att Law of my said Son John and lastly I do hereby constitute ordaine and make John Barron of Prescott Mercer and my said sone Richard Richardson Executors of this my last Will and Testament not doubting but they will see the same performed as my Trust is in them In witnes where I have Signed Sealed and delivered this my last Will and Testament this sixth day of March in the year of oure Lord God one thousand Seven hundred and eighteen Sealed Signed delivered and published by the above Named Katherine Hawarden it being first by her

Declared by her that any money by her advanced for  
Any of the said Children shall be taken as part of the  
Said Legacies and provisions for them respectively  
made

As aforesaid in the presence of us And in the  
Presence of the said Katherine Hawarden attested

By us

Henry Clayton  
Margaret Wakefield  
John Darwin

[Will endorsed] March 23rd 1718

Joannes Baron & Ric[ard]s

Richardson Ex[ecu]tores in

Test[I]mo nominateis fidem

dederunt & c Coram Ine

Tho[mas] Wainwright

## Appendix B: Summary of Clay Tobacco Pipes by Context

This appendix provides a summary of the clay tobacco pipe evidence from the site. The context number is given first (Cxt) followed by the number of bowl (B), stem (S) or mouthpiece (M) fragments recovered from that context and the total number of pipe fragments from the context as a whole (Tot). The suggested date of the context, based on the pipe fragments, is then given, followed by a summary of the marked or decorated pieces from each context and the figure numbers of any illustrated examples (Fig.). Bowl fragments, especially if they are marked, are much more closely datable than stem fragments. For this reason, the number and type of fragments present should be taken into account when assessing the reliance that can be placed on the suggested context dates given here.

Cxt	B	S	M	Tot	Date	Marks	Decoration	Figs	Comments
25		1		1	1800-1900				Plain stem fragment, almost certainly of C19th date.
36	1			1	1810-1870		flutes		Small spur fragment with traces of fine fluted lines surviving on the bowl. Most likely c. 1810-50 but of a type that could have been made into the second half of the C19th.
37		1		1	1840-1920				Plain stem fragment but with a taper that suggests it is from a cutty pipe, i.e., post c. 1840.
61		4		4	1680-1850				3 stems of c1680-1740 and one later piece of c1750-1850.
63		2		2	1760-1900				2 joining fragments (freshly broken) of late C18th or C19th type.
65		3		3	1680-1850				Stems of mixed date.
66			1	1	1820-1900				Long (65mm), thin (3.5x5mm) mouthpiece with a thin, patchy, very pale green glaze covering the end 44mm of stem. Part of a long-stemmed pipe.
69	268	205	26	499	1860-1900	*	*	36-120, 122	A very large group, including many marked and decorated pieces, which suggest a date of c1860-65 for this deposit. This group has not been catalogued in detail, but is fully illustrated and described in the report. Context includes a pipeclay object and doll's leg (Figs 120 & 122).
72		1		1	1700-1740				Quite a thick, deep oval stem fragment, suggesting an early C18th date, but with an unusually small bore.
73		1		1	1750-1850				
77	8	29	1	38	1660-1720	IB x 3	roll-stamped border	5, 6, 10, 13, 24	Very consistent group with large and joining fragments. All but one of the bowls would fit with a c. 1660-90 deposition, with 1680-90 being most likely. The one odd bowl is of a c. 1690-1720 type but could be either intrusive or an early example of its type.
79		6		6	1610-1800				Mixed fragments of C17th and C18th date. Latest pieces are C18th, but cannot be more precisely defined within that century.
80		3		3	1610-1910				Two C17th fragments and a later one of c. 1810-1910.
88	3	11		14	1850-1920			26, 27	Fragments of mixed date, with the latest being c. 1850-1920.
95	1	2		3	1660-1850	GR		16	Complete bowl and joining stem of c. 1660-90, the bowl stamped GR. Also a small fragment of badly burnt stem - most likely of c. 1750-1850. This small piece which could be intrusive in this context.
101	16	9		25	1660-1700	IB x 9, IB? and GR		4, 7-9, 11, 12, 17-20, 22, 23	Reasonably large and extremely consistent group of pipes. All the bowls would fit within a 1660-1710 date range, with deposition c. 1680-1690 being most likely. All but one of the stem fragments fit the bowls making substantially complete pipes. Very 'fresh' looking deposit, likely to be of one date.
107		2		2	1610-1750				

108		1	1	1610-1710				
110	5	32	1	38	1610-1920	IB, MILL/ / RPOOL, oo, TW		3, 33, 121 Mixed group, mainly C17th in date but including some C18th and C19th or later pieces. Four marked pieces - a C17th IB stamp; a moulded MILLER / LIVERPOOL stem mark of 1860-75; a moulded symbol spur mark (oo) and a moulded TW bowl mark (part of the pattern, not a maker's mark). Context includes a pipeclay object (Figure 121).
120	8	14		22	1610-1900	IB, **	Leaf dec seams	30 Odd group in that one fresh bowl and 9 of the stems would all go together as a 1690-1720 deposit. There are, however, odd earlier pieces, such as a bowl of 1650-80 stamped IB and a few later pieces, including four joining C19th bowl fragments with leaf decorated seams (fresh breaks). There is also a moulded star mark on a spur of c. 1860-1900 and a stem of c. 1680-1730 with a ground end.
154		4		4	1660-1710			Three C17th stems and one of C18th date (c. 1700-80).
155	1	2		3	1610-1700			Two C17th stems and a spur fragment of c. 1680-1740.
165	4	10		14	1610-1900	oo	Leaf dec seams; leaves and flutes	Fragments of mixed date but with 3 of the 4 bowl fragments dating from the C19th. One has leaf decorated seams (spur missing), one has a double ring symbol mark moulded on the spur with flutes and leaf seams on the bowl and one is from a miniature pipe.
193		1		1	1800-1860			Deep oval stem fragment, most likely first half of C19th but could possibly be later.
200		1	1	2	1850-1920			Soft fired and battered mouthpiece fragment with joining stem chip - freshly broken. The stem is thick and sharply tapered and has a flattened oval with sharp points as it approached the nipple mouthpiece. From a stocky cutty pipe of later C19th date.
	2			2	1660-1850	IB	leaves, flutes, etc	31 One bowl of c. 1660-90 had an IB heel stamp. The other dates from c. 1810-50 and has moulded leaves on seams with enclosed flutes on the bowl sides and a relief moulded design at the rim, imitating milling.
209	1	5		6	1610-1900			Fragments of mixed date, up to and including C19th.
230	1	2		3	1680-1780	IB		21 Fragments of mixed date, including a bowl of c. 1660-80 stamped IB.
236	3	3		6	1680-1720		2 roll stamped borders	14, 15 3 joining fragments (freshly broken) from a very hard fired transitional spur type of c. 1680-1720. The context group includes two contemporary roll-stamped stems suggesting a closely datable deposit.
237	2	6		8	1640-1680			1, 2 Two bowls of c. 1640-1680; all other stems fall in 1610-1710 range, and could be contemporary with bowls.
258		4		4	1660-1710			3 stems are basically C17th types, the fourth is c. 1680-1800. All 4 would fit within a c1680-1710 range.
264		1	1	2	1610-1800			Battered and not very datable fragments - the latest is C17th or C18th.
269	5	18		23	1690-1720			25, 28, 29 All bowls date from c. 1690-1720 and the stems are consistent with this as a date of deposition. Group contains large and fitting fragments suggesting that it represents a 'fresh' and closely dateable deposit. No marked or dec pieces.
273	3	2		5	1640-1850		Leaf dec seams	32 Fragments of mixed date, the latest piece apparently a bowl fragment of c. 1810-50 with leaf decorated seams. This, together with another late C18th or early C19th piece has been badly burns after having been broken.
308		1		1	1680-1740			Quite oval sectioned stem in an imported fabric.
313		1		1	1780-1900			Very small stem fragment, most likely of C19th date.

324	1	2	1	4	1780-1900		Stags head, foliage, etc	34	Fragments of late C18th or C19th date, the most closely datable of which is a bowl fragment decorated with a relief moulded stag's head facing the smoker flanked by naive foliage/flower motifs. Typical of local decorated bowls of late C18th or early C19th.
325		1		1	1800-1900				
U/S	6	18	1	25	1860-1920	[THE] RESPIRATOR / [JA]NY 9 1851 / [REGI] STERED	football boot, flutes & leaf dec seams	35	Mixed fragments including 4 C19th pieces with moulded decoration - 2 with flutes, 1 with leaf decorated seams and 1 with a football boot 'spur'. There is one pipe with a bowl stamp (The Respirator) for a registered design of 1851.
	339	409	33	781					

