Archaeological Excavation of land at

## 10 COMMONHALL STREET CHESTER

For Got Wine
J Hall \& B Poole
L~P:ARCHÆOLOGY

Archaeological Excavation of land at

## 10 COMMONHALL STREET CHESTER

| Client: | Got Wine |
| :---: | :---: |
| Local Authority: | Chester city Council |
| NGR: | 340481,3662 14 |
| Planning App: | 06/00265/FUL |
| Author(s): | J Hall \& B Poole |
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## Abstract

An archaeological excavation and watching brief was carried out during groundworks at 10 Commonhall Street, Chester. The archaeological work was implemented because of the potential for archaeological remains on the site.

The site lies within the heart of Chester and was occupied during the Roman period as part of the fortress of Deva and subsequently during the medieval period. This area of Chester grew rapidly from the $16^{\text {th }}$ century onwards as an important economic centre. Six phases of activity were identified on the site from the medieval period through to the $20^{\text {th }}$ century.

Phase 1 is represented by a medieval cultivation soil and a circular refuse pit that contained $13^{\text {th }}$ to $14^{\text {th }}$ century ceramic fragments. Phase 2 consists of two refuse pits dating to the late $16^{\text {th }}$ century. Phase 3 consists of three refuse pits cut into a distinct cultivation soil covering the site thought to date to the late $16^{\text {th }}$ to early $17^{\text {th }}$ century. Phase 4 comprises a large refuse pit located to the centre of the excavation area. This pit can be dated to between 1600 to 1650 . Also dating to the $17^{\text {th }}$ century were the foundations for several structures. Phase 5 is mainly made up of the structural development of the site in the $18^{\text {th }}$ century. Phase 6 relates to the $20^{\text {th }}$ century demolition of earlier structures and the insertion of new services.

It is clear that the $17^{\text {th }}$ century refuse pit relates to a high status group, potentially merchants residing and working at a property off Commonhall Street.

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## 1. Introduction \& Scope of Study

1.1.This document outlines the results of the archaeological excavation and watching brief carried out on the site of Got Wine, 10 Commonhall Street, NGR 340481,366214 (FIGURE 1). These investigations took the form of an archaeological excavation of the foundations of an extension to the main building and a watching brief on the related services and landscaping (figure 2).
1.2.The site code allocated for these works was CHE/ 10 CMS 07.
1.3.The work was commission by Howard Crook of Got Wine and was monitored by Mike Morris of Chester Archaeology on behalf of the local authority, Chester City Council.
1.4.This report has been compiled by Jason Hall and Blair Poole of L - P : Archaeology. Additional sections were compiled by Claire Statter, who produced the figures with historic research carried out by Kate Pack. Site work and subsequent research was carried out by Jason Hall, Blair Poole, Claire Statter, Matt Williams and Stuart Nixon of L - P : Archaeology.
1.5.The archaeological works were carried out between $20^{\text {th }}$ August and $21^{\text {st }}$ September 2007.
1.6.The site measured 220 square metres and was situated on relatively flat ground at an elevation of approximately 25 mOD .
1.7.The redevelopment of the site consisted of the addition of a new cellar and washing up area for the existing restaurant.
1.8.The aims of the archaeological works were;
1.8.1. To fully investigate the form and function of a cess pit identified during previous archaeological evaluation work on the site
1.8.2. To identify any archaeological remains or structures within the excavation areas
1.8.3. To assess the general nature and quality of deposits, artefact assemblages and environmental elements
1.8.4. To characterise the nature of the archaeological features present and any previous human activity on the site
1.8.5. To fully date and record any archaeological features present within the excavation area

## 2. Planning Background

2.1.In November 1990 the Department of the Environment issued PPG 16, "Archaeology and Planning". This document provides guidance for planning authorities, property owners, developers and others on the preservation and investigation of archaeological remains.
2.2.In considering any planning application for development the local planning authority, Chester City Council, is bound by the policy frameworks provided by Planning Policy Guidance Note 16 (PPG 16), and the policies within the Local Plan.

## CHESTER DISTRICT LOCAL PLAN

## POLICY ENV 32

Where development proposals affect sites of known or potential archaeological interest, the City Council will require an archaeological assessment/evaluation to be submitted as part of the planning application. Planning permission will not be granted without the adequate assessment of the nature, extent and significance of the remains and the degree to which the proposed development is likely to affect them.

## POLICY ENV 33

Development proposals affecting the site or setting of a site of regional or county importance will only be permitted if the integrity of the archaeological remains has been secured.

## POLICY ENV 34

Development proposals affecting the site of setting of a site of district or local importance will be permitted where it can be demonstrated that the particular site or monument can be preserved in situ or, where this is not feasible, by record.

## POLICY ENV 45

Planning permission will be refused for proposals that fail to have regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses.

## POLICY ENV 48

Development adversely affecting the appearance, historic characteristics, integrity and setting of historic parks and gardens and historic battlefields on the national register will be refused.

### 2.3.Condition 4 of planing determination $06 / 00265 /$ FUL states that;

No development shall take place within the application site are until full details of a programme of archaeological work has been submitted to and agreed in writing by the local planning authority. The works shall be carried out to the approved specification, which shall include: 1.Full archaeological excavation of the affected deposits. The early $17^{\text {th }}$ century pit is a significant discrete features which extends c .500 mm below the indicative formation level. This shall require full excavation.
2.An intensive watching brief will be required on those groundwork elements which do not require full archaeological excavation.
3.Given the importance of the archaeological artefacts and other material recovered from the evaluation, full analysis and publication of the results will be required.

## 3. Geology \& Topography

### 3.1.GEOLOGY

3.1.1. The solid geology of the area of the area is known from previous excavation to comprise pebble beds of the Sherwood sandstone group dating to the Triassic period, 190 to 136 million years ago.
3.1.2. The overlying drift deposit has been shown to consist of boulder clay and morainic drift.

### 3.2.TOPOGRAPHY

3.2.1. The proposed development site consists of land to the north of 10 Commonhall Street, Chester. The site is currently a vacant yard area.
3.2.2. The site is bound to the west by a narrow alley and is surrounded on all other sides by buildings.
3.2.3. The site slopes from a high point at the north, approximately 25 mOD to its lowest elevation at the south, approximately 24 mOD .

## 4. Archaeology \& Historic Background

TIMESCALES USED IN THIS REPORT:

| PERIOD | FROM | TO |
| :--- | :---: | :--- |
| PREHISTORIC |  |  |
| PALAEOLITHIC | 450,000 | $12,000 \mathrm{BC}$ |
| MESOLITHIC | 12,000 | $4,000 \mathrm{BC}$ |
| NEOLITHIC | 4,000 | $1,800 \mathrm{BC}$ |
| BRONZE AGE | 1,800 | 600 BC |
| IRON AGE | 600 | 43 AD |
| HISTORIC | 43 | 410 AD |
| ROMAN | 410 | 1066 AD |
| EARLY MEDIEVAL | 1066 | 1485 AD |
| MEDIEVAL | 1485 | PRESENT |
| POST MEDIEVAL |  |  |

4.1.It is not the aim of this section to present a complete history of Chester from earliest times, nor is it the intention of this report to examine every artefact found in the local area. Rather, the aim is to review readily available sources, both published and unpublished, to determine a basic historic development of the site.
4.2.Examination of data from cartographic records and various published and unpublished sources suggests that the site lies within the Roman fort of Deva and its later medieval successor.

### 4.3.PREHISTORIC

4.3.1. There has been very little evidence to suggest any early prehistoric settlement activity in the vicinity, however in the area surrounding Chester a number of flint scatters dating to the mesolithic and period have been found (MORGAN 2004: 22).
4.3.2. In Bache, 1.5 km north of the site, a number of mesolithic flint flakes and blades have been recovered (MORGAN 2004: 22). A possible mesolithic camp was also identified at Bache pool indicating that the area around Chester was
occupied during the mesolithic period (MORGAN 2004: 170).
4.3.3. A jadeite neolithic axe was found in Chester, although no accurate location has been given for this (CROSBY 1996: 18). As with the mesolithic period, no evidence for neolithic activity has been found on or around the site area, however it is clear that there was neolithic activity in the landscape around Chester.
4.3.4. A number of Bronze Age bone pins were found at Foregate Street, 500 m to the east of the site, during construction work (MORGAN 2004: 57). Whilst construction work was under way at the gas works along the Roodee in the $19^{\text {th }}$ century an axe hammer with a red deer antler handle was found, thought to date to be Neolithic or Bronze Age in date (MORGAN 2004: 57).
4.3.5. The area around Chester was occupied by the Cornovii during the Iron Age and it is thought that the area around Chester was used by farming settlements during this period (CROSBY 1996: 18). Recent finds from Chester Amphitheatre, 350 m east of the site, in 2006 supports this hypothesis (POOLE 2007A). Prehistoric plough marks, thought to be Iron Age in date, were identified during excavations in the 1970's at Abbey Green, approximately 450m to the northeast of the site (CARRINGTON 199:, 56).
4.3.6. Iron age ceramic sherds of Cheshire VCP (very coarse pottery) were found at Handbridge, south of the dee (MORGAN 2004: 140). Cheshire VCP is commonly a fluted ceramic type, often associated with the production and transport of salt from inland sources such as Middlewich (MORGAN 2004: 140).
4.3.7. As the information regarding the known prehistoric landscape around Chester's hinterland develops the picture of Chester's prehistoric past is becoming more defined. No prehistoric features have been identified at the site location or its immediate vicinity.

### 4.4.ROMAN

4.4.1. The legionary fortress of Deva, associated with the XX legion, was founded at Chester to serve as a military centre for north-west England and is thought to have been completed around AD79 (CROSBY 1996: 21). The layout of the
fortress would have followed standard Roman plans of a series of four main streets leading from gates to central principia (CARRINGTON 1994: 30).
4.4.2. The initial defences of this period comprised a turf bank with a clay and sandstone infill with wooden palisades (CARRINGTON 1994: 29). These defences were reconstructed of stone around AD100 with formal gates and towers put in place (CARRINGTON 1994: 30).
4.4.3. 50 m to the west of the site are the remains of the Roman granaries excavated between 1954 and 1956 (PETCH \& THOMPSON 1959: 33). These buildings were very important for the Roman fortress and the buildings would have been long rectangular structures with thick walls and buttresses (PETCH \& THOMPSON 1959: 33). The granaries are thought to date to around AD102 and were possibly preceded by timber structures (PETCH \& THOMPSON 1959: 55).
4.4.4. The site area lies at the proposed location of Roman senior officer's houses, 50m south of the headquarters building or principia (CARRINGTON 1994: 30). It is possible that the site area extends towards the proposed location of the Roman hospital, which was located to the south of the senior officers houses (LANGTREE \& COMYNS 2001: 16).

### 4.5.EARLY MEDIEVAL

4.5.1. Following the departure of the bulk of the Roman contingent, Chester may have been occupied by one of the Welsh groups prior to AD616 (ROBERTS 1851: 124). It is with the battle of Chester, in AD616 when Athelfrith of Northumbria defeated Brochwel and his Welsh army that the Saxons established their position in the area (CARRINGTON 1994: 52).
4.5.2. During the mid $7^{\text {th }}$ century Chester fell under control of the Saxon king Penda (CARRINGTON 1994: 52). By the late $7^{\text {th }}$ century Saint Werburgh had founded a religious institution on the present site of St John's Church, which later became the first cathedral. Her body was removed from Hanbury in Staffordshire in the 9th century and, in order to save its desecration by Danish marauders, however she was reburied in the Abbey of St. Peter \& St. Paul in Chester, the present Cathedral (CARRINGTON 1994: 52).
4.5.3. During this period the Saxons extended and strengthened the walls of Chester to protect the city against the Danes, who occupied it for a short time until Alfred seized all the cattle and laid waste to the surrounding land to drive them out (HARDING 2002: 21). In fact it was Alfred's daughter Ethelfleda of Mercia that built the new Saxon 'burh' (MONTGOMERY 1918: 118).
4.5.4. The church of St Peter, 50 m north of the site, is though to have $10^{\text {th }}$ century foundations, however, it is probable that there was an earlier timber church on the site pre-dating this (LANGTREE \& COMYNS 2001: 78).
4.5.5. The site is thought to fall within an area of intensive Saxon occupation running along Bridge Street and Lower Bridge Street, between the church of St Olave and the church of St Peter (CARRINGTON 1994: 57).

### 4.6.MEDIEVAL

4.6.1. The Domesday book (MORRIS 1979: 262C) refers to Chester as;

Paid tax on 50 hides before 1066. 31/2 hides which are outside the City, that is $1 \frac{1}{2}$ hides beyond the bridge and 2 hides in Newton and Redcliff and the Bishop's Borough, these paid tax with the City.

Before 1066 there were 431 houses in the City paying tax, and besides these the Bishop had 56 houses paying tax. This City then paid $101 / 2$ silver marks; two parts were the Kings, the third the Earl's.
4.6.2. Following the Norman invasion, Williams forces headed north taking control of the country (CROSBY 1996: 33). When the Norman forces reached Chester they are recorded as thoroughly destroying the settlement (CROSBY 1996: 34). Prior to the Domesday survey of 1086 Chester was recorded as having 431 houses paying tax, with only 282 houses surviving by the Domesday survey (CROSBY 1996: 34).
4.6.3. In 1071 King William conferred the title of Earl of Chester to his nephew Hugh d'Avranches, known as Hugh Lupus (CROSBY 1996: 34). Around 1070 William had a motte and bailey castle constructed at Chester which was reconstructed of stone in the $12^{\text {th }}$ century, with further alteration made in the $13^{\text {th }}$ century (CROSBY 1996: 35). The castle stands 300 m to the south of the site area.
4.6.4. The town plan of this time ostensibly followed that inherited from the Roman fortress via the Saxon burh (CARRINGTON 1994: 65). Although many of the churches remained, or were updated, several new ecclesiastic institutions such as monastic houses were established (CARRINGTON 1994: 65). Around this time the rows were also established (BROWN 1999: XXIII).
4.6.5. By the late $13^{\text {th }}$ century Chester's rows were beginning to take shape although they were still incomplete at this time (OTTAWAY 1992: 187). Building of the rows continued for over 100 years and by 1350 a series of Rows along the four main streets were in place (BROWN 1999: XIII).
4.6.6. Situated immediately opposite the site area during the medieval period was a Carmelite friary and associated precinct (CARRINGTON 1994: 66). The Carmelites, or white friars, established themselves in Chester around 1277 although it was not until 1290 that the friary at Commonhall Street was constructed on land donated by Hugh Payne, a local citizen (CARRINGTON 1994: 76).
4.6.7. The extent of the precinct is thought to extend between Commonhall Street, Weaver Street, Whitefriars and Bridge Street. The associated church stood directly on Whitefriars. Apart from the church, several buildings are mentioned a later inventory. These include the cloister, the convent hall, the dorter, the prior's chamber as well as the kitchen, bulting house, salt house, and store house. The exact position of these buildings is not known and no clearly identified remains of the friary have survived.
4.6.8. The site area is located in an area of major development in Chester of this period. The Rows and their associated yards, as well as merchants houses and shops located off alleys from Bridge Street were clearly in place giving an idea as to the character of the site area at this time.

### 4.7.POST MEDIEVAL

4.7.1. The hospital of St. Ursula, located opposite the site area, was formed in 1508 following the will of Roger Smith, a Sheriff of Chester (Elrington \& HARris 1980: 183). Smith donated his house in Commonhall Lane to be converted into almshouses, later to become six almshouses under one roof (ELRINGTON \& HARRIS 1980: 183).
4.7.2. In June 1510 the executors of Smiths estate obtained a royal licence to found a chantry and hospital in honour of St. Ursula and the former Common Hall of the city which lay behind the almshouses was adapted for this purpose (elrington \& HARRIS 1980: 183). In 1547 the chapel, under the name of the Old Common Hall, was sold by the mayor. The hospital continued as an institution for relieving the poor under the name of Sir Thomas Smith's almshouses (ELRINGTON \& HARRIS 1980: 183).
4.7.3. Braun and Hogenberg's map of Chester dated 1581 clearly shows the Rows in place with Commonhall Street clearly depicted (figure 3). The monastic precinct to the south of the site is shown and a row of two storey buildings along the north façade of Commonhall Street. These buildings appear to be timber in form with banding between the ground floor and upper floor, possibly indicating an overhanging upper storey common at this time. This indicates that the building shown on Braun and Hogenberg's plan is not the same building standing today.
4.7.4. John Speed's map of Cheshire has a detailed inset of Chester shows Commonhall Street being occupied with rows of terraced houses on each side of the road (FIGURE 4). The buildings on the north side, including the site area, are shown to back onto an open, possibly shared, yard area.
4.7.5. Between 1610 and 1653 a series of maps depict the layout of Chester with Commonhall Street being a main thoroughfare through the town, however no buildings other than large municipal buildings or churches are shown in detail. Hollar's map of 1653 follows Speed's outline and shows the buildings along Commonhall Street as terraced structures backing onto an open yard area.
4.7.6. Dutch House, located along Bridge Street, is thought to date to the $17^{\text {th }}$ century, possibly 1670, with an ornate and distinctive façade (BROWN 1999: 162). The rear yard of Dutch house is shared with 10 Commonhall Street, the study site. It is clear that when Dutch house was built it was of high status and likely to have been used as a town house (BROWN 1999: 163).
4.7.7. The area around Bridge Street and Lower Bridge Street was known to have merchants houses and high quality town houses during the $17^{\text {th }}$ century. Rich
individuals, around the 1670 's, started to build larger brick buildings at this time as evidenced by Dutch House and Oddfellows hall (LangTree \& COMYns 2001: 106).
4.7.8. Lavaux's map of 1745 shows the frontage onto Commonhall Street as a single mass of buildings without distinguishing between individual structures, however Stockdale's map of 1796 does clearly define alleys and individual buildings (FIGURE 5). By Stockdale's map the site is shown as being to the east of a narrow alley and forming part of the block of development leading towards Bridge Street to the east. This layout is also respected on Cole's map of 1805 (FIGURE 6).
4.7.9. Neele's maps of Chester dated 1809 and 1817 respectively and Batenham's map of Chester dated 1821 continue to represent the site in the same way as Stockdale (FIGURE $7 \& 8$ ). This layout is also shown on Cole's maps dating to 1836 and 1843 (FIGURE 9).
4.7.10.It is possible that the building was intended as a merchants house with in built warehouse at this time. It was common for merchants to build warehouses close to or attached to their houses (GILES \& HAWkins 2004: 13). These buildings were often long and thin with several stories, the design allowing for ease of access and security (GILES \& HAWKINS 2004: 14).
4.7.11.Over time this practise declined and by the mid $19^{\text {th }}$ century warehouses were distinct structures located away from the merchants house closer to transport links, often in less salubrious locations (GILES \& HAWKINS 2004: 16).
4.7.12.In the early $19^{\text {th }}$ century Sir Thomas Smith's almshouses, formally St Ursula's hospital, comprised six separate apartments tenanted by the widows of freemen (ELRINGTON \& HARRIS 1980: 184). By 1837 the buildings were in a state of disrepair and the houses became so dilapidated that the trustees were unable to fill vacancies (ELRINGTON \& HARRIS 1980: 184). The almshouses were sold by auction in October 1871 (ELRINGTON \& HARRIS 1980: 184).
4.7.13.The tithe map of St Peter's dated to 1841 shows the road layout with the alley in place to the west of the site boundary, however the site is shown as a solid block of buildings numbered 97 (FIGURE 10). The tithe apportionment records
that this block of buildings were owned by Edward Ducker and were used as houses, shops, offices and yards by Joseph Finchett.
4.7.14.Thomas's map of 1853 clearly shows 10 Commonhall Street as a long thin building with outbuildings to the rear, with access from the alley to the west (FIGURE 11). This layout is also shown on Gresty's plan of 1870 (FIGURE 12).
4.7.15.The 1871 first edition Ordnance Survey map of Chester shows the building as being made up of three distinct elements (FIGURE 13). To the north of the main building 2 smaller structures are evident facing onto the alley. This layout continues onto the $18902^{\text {nd }}$ edition Ordnance Survey map of the area as well as the 1914 edition (FIGURE $14 \& 15$ ).
4.7.16.The 1953 Ordnance Survey map of Chester shows a more detailed layout of the buildings on the site area, including the two structures to the north (FIGURE 16). These buildings are not shown on any of the later Ordnance Survey maps of the area indicating that they were demolished during the mid $20^{\text {th }}$ century.
4.7.17. The site had already taken shape by the post medieval period and has undergone limited changes during this period. The earlier, possibly timber, structure was replaced, possibly during the $17^{\text {th }}$ century by the standing building. This building has undergone alterations since the $18^{\text {th }}$ century, however the footprint of the building has remained in tact. The two smaller buildings on the site area, to the north, were constructed at some time during the $18^{\text {th }}$ century and were subsequently demolished in the mid $20^{\text {th }}$ century.

## 5. Methodology

5.1.This section will outline the methodology employed during the archaeological investigation on site. A detailed methodology can be found in the specification of works (POOLE 2007B).

### 5.2.EXCAVATION

5.2.1. The initial groundworks comprised the clearance of the site using a 1.5 tonne tracked mini digger with a 1.2 m wide toothless ditching bucket. This machine was only used for site clearance and the removal of overburden.
5.2.2. All excavation of deposits underlying the modern overburden was undertaken by hand by suitable qualified and experienced archaeologists. Undifferentiated deposits of recent origin was removed in successive spits down to the top of the first significant archaeological horizon.
5.2.3. All archaeological features were fully excavated by hand using appropriate tools and were recorded stratigraphically. Features were recorded archaeologically, both in plan and section.
5.2.4. Hand cleaning by context was undertaken within the excavation area to clearly identify the location and spread of any features.
5.2.5. Excavated material was examined in order to retrieve artefacts to assist in the analysis of the spatial distribution of artefacts.

### 5.3.WATCHING BRIEF METHODOLOGY

5.3.1. The construction groundworks were undertaken by hand by the groundworks crew. These excavations were carefully monitored by a suitably experienced and qualified archaeologist.
5.3.2. All features were hand cleaned and recorded prior to removal by the archaeologist present.

## 6. Results

6.1.The results section of this report will be separated into the main excavation trench and watching brief areas (FIGURE 17).
6.2.It is L - P : Archaeology standard to use the following conventions. Context numbers will be shown in round brackets (1), structure numbers will be underlined $\underline{2}$ and cut numbers will be shown in square brackets [3].

### 6.3.EXCAVATION

6.3.1. The excavation area was located to the north of 10 Commonhall Street, known as Got Wine, within an open yard area to accommodate an extension to the cellar and associated services.
6.3.2. The trench measured 10 m along its east-west axis and 4 m along its northsouth axis and was excavated to a depth of $24.45 \mathrm{mOD}, 1.55 \mathrm{~m}$ below the yard surface. Foundation slots 0.60 m wide were excavated to an additional 0.40 m depth. These were excavated to accommodate ground beams within the main excavation area (figure 17).


Plate 1 - Excavation area, looking east

### 6.4.PHASE 6 - $\mathbf{2 0}^{\text {TH }}$ CENTURY DEMOLITION AND SERVICES

6.4.1. The uppermost deposit (14) covered the entire site area and was a dark brown
sandy clay loam with a maximum depth of 0.30 m . This modern overburden contained mixed rubble and an large quantity of post-medieval finds ranging from blue and white ware ceramic sherds to machine produced cotton socks and modern steel coach bolts.
6.4.2. Below (14) two service trenches crossed the excavated area. Service trench [29] was aligned east west across the middle of the excavation area and contained gas, water and electrical services. The trench was backfilled with a fine yellow sand (84) and measured 0.4 m wide by 0.4 m deep. The service trench had a shallow u-shaped profile and contained $19^{\text {th }}$ and $20^{\text {th }}$ century ceramic sherds and metal fragments.
6.4.3. Service trench [76] contains a salt-glazed drain 27, within a loose grey brown sandy matrix (77). This trench ran into an inspection hatch adjacent to the southern boundary wall, $\underline{1}$. As with service trench [29] this trench contained $19^{\text {th }}$ and $20^{\text {th }}$ century ceramic sherds and modern metal fragments. The salt glazed drain measured 0.12 m in diameter and was constructed from flanged section of pipe 0.64 m long. The form and material of the pipe are indicative of a mid $20^{\text {th }}$ century date.
6.4.4. Both trenches were cut into a 0.2 m thick deposit of dark brown sandy clay loam (46). It is likely that this deposit relates to overburden covering the $20^{\text {th }}$ century demolition of the terraced buildings seen on the early Ordnance Survey maps fronting onto the alley to the west of the site (figure 13).
6.4.5. The brick alley surface $\underline{30}$ was removed along its eastern edge, where it bounded the excavation area under to expose existing services. This was done during the watching brief phase of work. Underlying the alley surface was a 0.1 m thick light brown silt ash and sand deposit (31) that acted as a sub surface for the alley. This deposit was also seen to the northern end of the site where it was recorded as (34).
6.4.6. Both (31) and (34) overlay a friable mid brown silt sand loam (32). This deposit extended beyond the base of the excavation at a depth of 24.83 mOD , 0.5 m below the alley surface. Within the excavation area deposit (32) was recorded as (49) and (36) where it appears in disparate areas.
6.4.7. Cut into (49) was wall 33 , identified 10 m north of the excavation area, which ran in an east west orientation from underneath the alley surface onto the site area. The remains of the wall were identified as a series of large sandstone blocks in an ashlar construction. This was sealed by deposit (31).

### 6.5.PHASE 5-18 ${ }^{\text {TH }}$ TO $19^{\text {TH }}$ CENTURY STRUCTURES

6.5.1. A series of structures were identified during excavation associated with the buildings that occupied the site noted above. These were restricted to the western edge of the site, fronting onto the narrow alley, formerly Edwards Court.
6.5.2. To the southern edge of the excavated area, butting the standing garden wall $\underline{1}$ was a spread of rounded cobbles, $\underline{2}$. This was a localised spread of cobbles measuring 2.5 m east west by 1.5 m north south. The cobbled surface clearly represents an earlier yard surface, as seen on the 1953 Ordnance Survey map (figure 16).
6.5.3. Underlying the cobbled surface was a thin layer of dark yellow sand (3), which acted as a bed for the cobbles to sit. No finds were recovered from this deposit, however it is though that the cobbles are part of a wider $18^{\text {th }}$ to $19^{\text {th }}$ century surface.
6.5.4. A service trench [83] running east west was identified below (3) cut into a firm dark grey silt (4). This service trench contained a salt glazed drain, $\underline{82}$, which was constructed of 0.61 m long sections of 0.14 m diameter segments. The form and material suggest that the drain dates to the $18^{\text {th }}$ to $19^{\text {th }}$ century. A friable dark grey silt (81) which contained charcoal and brick fragments was used as a backfill for the service trench. The backfill (81) appears to be redeposited material from (4).
6.5.5. Also underlying (3) was a 0.3 m thick layer of friable dark grey sand silt (15). This is also thought to represent a bedding layer for the cobbles. A horizontal cut [16] was identified for (15) which appears to represent levelling of the yard area for the cobbles.
6.5.6. A 2.4 m length of bricks, $\underline{5}$, laid on edge, was identified to the south east
corner of the excavated area, cut, [19], into (4) were identified. These bricks do not appear to form a floor surface or wall structure and may represent a yard structure such as a coal store.
6.5.7. The overburden (46) sealed in, at the western area of the trench, a 0.8 m deep deposit of brick rubble with inclusion of pink mortar (79). This appears to be a demolition deposit relating to the $19^{\text {th }}$ century structures that occupied the site in the mid $20^{\text {th }}$ century. (79) could be seen to overlay the remains of a brick floor 10. This floor comprised a 1.1 m , seven brick wide surface of orange brick. Each brick measured 0.11 m by 0.24 m by 0.07 m .


Plate 2 - View of alleyway, showing structure $\underline{9}$ with surfaces $\underline{12}$ and $\underline{10}$, looking east. 1 m and 2 m scale
6.5.8. To the western end of floor $\underline{10}$ was a rectangular stone slab $\underline{85}$ measuring 1 m by 0.5 m . This stone slab was set into to the floor by dark grey hard mortar and covered a salt glazed drain $\underline{85}$.
6.5.9. The brick floor $1 \underline{0}$ overlay a loose, light brown, sandy loam (70) 0.24 m thick that contained $18^{\text {th }}$ and $19^{\text {th }}$ century ceramic sherds as well as slate and brick fragments. This fill separated floor 10 from an earlier alley floor 37 and contained a salt glazed drain $\underline{71}$, running east west across the site. The salt glazed drain $\underline{71}$ was damaged and the stone slab covering it appears to have
been put in place after the drain went out of use.
6.5.10.Floor $\underline{37}$ followed the same footprint as 10 , however this is clearly an earlier floor that have gone out of use (FIGURE 20). It is thought that floor 37 represents a $19^{\text {th }}$ century brick floor for an outhouse which may have undergone some subsidence, evidenced by the collapsing brickwork to the west end of the floor. A new drain, $\underline{85}$, was laid over the subsided floor and a new surface, 10, erected above it. The base for floor 37, (63), was a loose grey brown sandy loam measuring 0.15 m thick. This deposit contained a small amount of ceramic dating to the $19^{\text {th }}$ century and some diagnostic clay tobacco pipe stems dating to between 1770 and 1900 and 1850 and 1900 respectively.
6.5.11.To the northwest of the excavated area a discrete spread of cobbles $\underline{12}$ similar to 2 , noted above, were identified. Surface $\underline{12}$ measured 2.0 m east west by 0.58 m north south and butted to northern face of a brick wall $\underline{9}$. The cobbles $n$ this area were sealed by the overburden (46) and were bedded into a 0.16 m thick dark grey sandy loam (51).
6.5.12.To the western end of the excavation area between the north south walls for structure $\underline{9}$ were two make up deposits (50) and (62). These deposits appear to be later make up layers raising the yard level. Ceramic finds recovered from (62) date the deposit to between 1770 and 1800 .
6.5.13.At the same level as cobbled surface $\underline{12}$ was a brick and sandstone surface $\underline{Z}$. The upper surface of the stone and brick was well worn and it is thought that this was the earlier yard surface or surface of the outbuilding. It is possible that the outbuildings were used as stables and toilets associated with the buildings off Commonhall Street and Bridge Street Row. The surface was sealed by two distinct make up layers (66) and (67) sequentially (FIGURE 18).
6.5.14.To the east of surface $\underline{\eta}$ was a second surface $\underline{8}$. This second surface, $\underline{8}$, appears to be cut by [80], the eastern end of $\underline{Z}$, and comprised orange brick 0.22 m by 0.11 m by 0.7 m each. (FIGURE 18).
6.5.15.The main structural component of the western area of the excavation comprised structure $\underline{9}$ (FIGURE 19). This was made up of two parallel brick walls 1.8 m apart running in an east west orientation, with a series of three
north south brick walls keyed into the structure. The construction form and materials show that this is a single structure with a number of walls. The bricks, 0.24 m by 0.11 m by 0.7 m , were bonded together by a pale brown, sandy, mortar. Two floors were associated with these walls. Floor 10 formed the brick surface for what appeared to be a corridor and floor $\underline{12}$ formed the cobbled surface, potentially a stable area.
6.5.16.The cut, [48], for structure $\underline{9}$ was clearly defined and comprised almost vertical sides with a flat base. Structure $\underline{9}$ was cut into a shallow, 0.05 m thick, orange silt and mortar deposit (52). The dimensions of the cut matched those of the structure with limited gaps. A loose grey brown silt sand backfill (68) could be seen to fill these gaps to the east of the wall. To the west of $\underline{9}$ a second backfill (39) similar to (68) could be seen, albeit containing a higher quantity of sandstone fragments.
6.5.17.Underlying (52) was a 0.2 m thick deposit of mottled pink/orange mortar and sand loam (69). This was a mixed deposit containing brick rubble, slate and stone. It is likely that this is a make up deposit to act as a base or levelling layer for the construction of $\underline{9}$.
6.5.18.To the south of structure $\underline{9}$ was a short wall, $\underline{11}$, truncated at its northern end by [48]. Structure $\underline{11}$ was sealed by (4), a firm dark grey course silt. Ceramic finds from (4) give an $18^{\text {th }}$ century date for its deposition. It is thought to be a make up layer in order to level the site.
6.5.19. Underlying (4) to the southern edge of the site was a sandstone gutter $\underline{75}$. This gutter comprised four blocks of 0.6 m by 0.3 m by 0.12 m sandstone blocks with a central gully, along an east west alignment. This gutter would have been used as a run off for water at the base of the main southern garden wall $\underline{1}$. A base of orange clay (74) had been used to make sure the sandstone gutter fell towards the west, in the direction of the alley, and form a solid base for the feature. The trench, [73], for the sandstone gutter $\underline{75}$ and the cut [78] for the $17^{\text {th }}$ century wall $\underline{1}$ could be seen to cut a thick post medieval layer (49). This will be discussed in more detail below.

### 6.6.PHASE $4-17^{\mathrm{TH}}$ CENTURY ACTIVITY

6.6.1. The brick construction of 11 comprised a series of stretcher courses with hard, dark grey, mortar and sandstone foundation blocks, 17. These sandstone footings comprised 0.05 m thick rough cut sandstone measuring 0.4 m by 0.3 m in size. The construction form was ashlar, with each block butting the next, with no mortar present.
6.6.2. The cut for walls 17 and 11 , [18] could be seen to be present below the wall (FIGURE 20). Within this cut a grey, soft, silty loam backfill (13) was identified. Ceramic finds from (13) and the lower construction materials for wall 17 indicate that this structure may date into the $17^{\text {th }}$ century.
6.6.3. The main southern wall for the garden, 1 , was the only standing structure remaining above ground level dating to the $17^{\text {th }}$ century. The wall stood approximately 3.2 m high and consisted of 36 courses of brick, 0.24 m by 0.11 m by 0.07 m , in English Garden Wall bond. The wall is thought to date to the $17^{\text {th }}$ century and represents a sub division within a courtyard area visible from at least the 1st edition 1871 Ordnance Survey map of the area.
6.6.4. Located in the eastern section of the excavation area was a large pit [21] (FIGURE 21). This pit was sealed by a loose sandy loam (20), 0.05 m thick, and was identified in an earlier archaeological evaluation of the site carried out by Earthworks Archaeology in 2006.
6.6.5. Context (20) comprised a loose dark brown sandy loam with fragments of brick, slate, mortar and window glass. The deposit measured between 0.2 m and 0.5 m thick and sealed (22).
6.6.6. Clay tobacco pipe recovered from (20) was restricted to a date range of 1610 to 1740 , with ceramic sherds of black ware, purple ware, North Devon gravel tempered ware and yellow ware. These ceramic sherds all fall within the $17^{\text {th }}$ to $18^{\text {th }}$ century. The only glass finds recovered from (20) were fragments of $16^{\text {th }}$ to early $17^{\text {th }}$ century window glass. Taken as a whole assemblage the finds place the date of (20) within the $17^{\text {th }}$ century. There were several fragments of Roman ceramic, including Samian ware, CBM and coarse Orange ware within (20). These are thought to be redeposited items that appear endemic to

Chester.
6.6.7. The pit measured 4 m by 2.7 m in plan by 2.4 m deep and contained a sequence of fills associated with domestic waste, indicating that this represents a cess pit associated with the nearby buildings.


Plate 3 - Pit [21], showing extent of pit edges with central baulk to show depositional sequence, 1m scale looking southwest
6.6.8. Pit [21] cut the $16^{\text {th }}$ to $17^{\text {th }}$ century make up deposit (49), discussed below, and could be seen to have a shallow slope on the north and south faces, with a steeper slope on the north and south faces giving an extended U-shaped pit (FIGURE 22). The uppermost deposit associated with pit [21] was a soft dark brown silty loam (22) measuring 0.3 m in depth. This deposit contained ash and charcoal flecks as well as two fragments of $17^{\text {th }}$ century window glass, clay tobacco pipe dating to between 1610 and 1740 as well as a clear ceramic assemblage dating to the mid $17^{\text {th }}$ century. A detailed account of the ceramic assemblage can be found in Appendix 3, report 2. This context appears to be a final fill deposit of pit [21].
6.6.9. Sealed in by (22) was a loose black ash and silt deposit (23) with charcoal flecks and a high quantity of mid $17^{\text {th }}$ century ceramic sherds. Deposit (23) measured 0.35 m deep and is thought to be the fill of a cess pit. The glass from (23) all dated to the $17^{\mathrm{th}}$ century to the early $18^{\text {th }}$ century and contained the remains of a cigar stem from a goblet dating to the early $17^{\text {th }}$ century as well as
a fragment of body from a small ribbed globular flask dating to between $c$. 1550 to 1640 .
6.6.10.Context (25) underlay (23) and comprises a yellow to green wet silty deposit measuring 0.25 m thick. The context appeared to form the lower deposit of pit [21] and contained mid $17^{\text {th }}$ century ceramic sherds, clay tobacco pipe dating to between 1610 and 1650 and a single fragment of green bottle glass, dating to between 1600 and 1650 as well as two fragments of goblet also dating to 1600 to 1640 .
6.6.11.A discrete lens of loose black ash (26) 0.2 m thick, located below (25) to the western end of pit [21]. This deposit is thought to represent a single dumping action of fireplace refuse.
6.6.12.Specialist analysis on both vessel and window glass revealed that pit [21] contained glass dated to the $17^{\text {th }}$ century. The ceramic assemblage indicates a mid $17^{\text {th }}$ century date. The clay tobacco pipe gives the clearest date range for the pit, thought to be between 1600 to 1650 .

### 6.7.PHASE $3-16^{\mathrm{TH}}$ TO $17^{\mathrm{TH}}$ CENTURY ACTIVITY

6.7.1. A loose, light brown, sandy loam, (49), could be seen to form a $16^{\text {th }}$ to $17^{\text {th }}$ century make up layer across the excavation area. This deposit measured 0.8 m thick at its deepest point to the east end of the excavation area. A series of three pits underlay (49) including [43], [57] and [86].
6.7.2. At the southern edge of the site inter cutting pits [43] and [45] could be seen (FIGURE 23). The pit was elongated oval in shape and was cut into (41), extending beyond the southern site boundary into the yard area of the building to the immediate east of 10 Commonhall Street.
6.7.3. The pit had steep sides leading to a rounded base and measured 2.3 m east west by 2.25 m deep. Only the section within the excavation area was fully investigated, as such only 0.6 m of the pits width, north south, was excavated.
6.7.4. The upper fill of the pit comprised a loose dark drown silt and ash deposit (72) which extended 0.5 m in depth. This sealed in a lower deposit, (42) of friable dark grey sand loam which extended to the base of pit [43]. Glass recovered
from (42) comprised window and vessel glass which all dated to the $17^{\text {th }}$ century, with vessel glass dating to between 1600 and 1640. The ceramic assemblage recovered from (42) also dated to the $16^{\text {th }}$ to $17^{\text {th }}$ century and contained fragments of Beauvais, tin glazed ware, yellow ware and black wares.


Plate 4 - Pit [43] looking west, 1m scale
6.7.5. To the north of the excavation area a small pit, [57], was identified. As this pit extended into the northern section and as such only half of the pit was excavated. The excavated half measured 1.8 m east west by 0.5 m north south and measured 0.35 m deep. The pit had uneven sides and a flat base with two distinct fills.
6.7.6. Deposit (55), a loose orange silty loam contained a great deal of brick and sandstone rubble and measures 0.35 m deep. This is a later re-cut of the pit and cuts the earlier fill (56), a loose black ash and charcoal deposit. Figure 18 shows the fills clearly. It is thought that the pit was opened as a short lived domestic rubbish pit and rapidly backfilled.
6.7.7. Pit [57] cuts (53), a $16^{\text {th }}$ to $17^{\text {th }}$ century make up deposit of soft dark brown silt loam which measures 0.3 m thick. This in turn overlay a thin, 0.1 m thick,
deposit of loose yellow sand (54). These deposits were only located at the western edge of the excavation area and overlay (41).
6.7.8. Deposit (41) was a 0.5 m deep make up layer of soft dark brown sandy clay loam (FIGURE 18). This deposit is thought to represent a $16^{\text {th }}$ to $17^{\text {th }}$ century garden or yard formation, associated with the properties fronting onto both Commonhall Street and Bridge Street Rows. It is clear that during the $16^{\text {th }}$ and $17^{\text {th }}$ centuries the area to the rear, north, of 10 Commonhall Street was used for domestic waste pits, probably for the buildings along both Commonhall Street and the Rows of Bridge Street.

### 6.8.PHASE $2-16^{\text {TH }}$ CENTURY ACTIVITY

6.8.1. Sealed in by (41) at the base of the trench were two lower pits, [61] and [86] respectively. The upper pit, [61] comprised the base of a pit, truncated by (41) measuring 2.2 m in plan, with only the lowest 0.2 m surviving. The nature of the top of the both pits [61] and [87] indicate that site clearance must have occurred prior to the laying of (41), where the upper sections of both pits were removed.
6.8.2. The fill of [61] was a soft grey silty deposit, (60), thought to be a cess fill. Glass recovered from (60) dated to 1570 to 1640 . Although there were Roman ceramic intrusions into (60) the majority of the ceramic assemblage dated to between the $13^{\text {th }}$ and early $17^{\text {th }}$ centuries.
6.8.3. Pit [61] cut (58), a fill of an earlier pit [86]. Deposit (58) was a soft orange clay that measured 0.25 m thick. Pit [86] cut into the base deposit of the excavation area (59).

### 6.9.PHASE 1 - MEDIEVAL ACTIVITY

6.9.1. This deposit (59) comprised a soft dark brown silt loam which covered the entire site and was not bottomed during the excavation as it extended below the final depth of disturbance associated with the development.
6.9.2. A circular pit, [45] measuring 1.6 m diameter, sealed by (41), was identified cutting [59] at the southern boundary to the site (FIGURE 23). Only 0.4 m of this earlier pit survived to the north of [43] comprising soft red brown sandy
clay with charcoal flecks and mortar. As this pit is cut by [43] it can be seen to pre-date it. Only limited finds were recovered from (44) including $13^{\text {th }}$ to $14^{\text {th }}$ century red grey ware, a fragment of Roman CBM and two sherds of Roman coarse ware ceramic and a rim sherd of $2^{\text {nd }}$ Century Samian ware. The function of this pit is unknown, however it is thought to represent one of the earliest phases of activity on the site, dating to the medieval period.

### 6.10.WATCHING BRIEF

6.10.1.During the watching brief phase of works a series of service and foundation trenches were excavated (FIGURE 17). Running parallel to the current alley was a narrow service trench 0.6 m wide, excavated to a depth of 0.5 m below the alley surface. The bulk of this trench was taken up with in filled rubble of brick fragments (34). This is thought to be the demolition debris from the buildings that once stood along the alley.
6.10.2.The demolition rubble extended to the base of the trench, however along the east facing section of the foundation trench along the alley a sequence of make up deposits was identified.
6.10.3. Underlying the alley cobbled surface, $\underline{30}$, which comprised grey stone sets, was a 0.1 m thick layer of sand (31) (FIGURE 24). This could be seen to form the base for the stone sets, 30 .
6.10.4.Sealed in by (31) was a 0.3 m deep make up deposit of mid brown silt with charcoal flecks (32). This deposit was shown to be a continuation of (41), the post medieval make up deposit identified in the excavation area.


Plate 5 - Sandstone wall 33, looking north. 1 m scale
6.10.5.10m north of 10 Commonhall Street a section of sandstone wall, 33, was identified. This wall comprised a single course of large sandstone blocks running in an east west alignment, measuring 0.4 m wide, cutting directly across the foundation trench. This wall is thought to represent the foundations for one of the $18^{\text {th }}$ century buildings depicted in this location on the early Ordnance Survey maps of the area (figure 13 \& figure 25).
6.10.6.The demolition rubble, (34), extended through the foundation trench along the alley alignment and into an area excavated for a bin store at the north end of the site. The entire area for the bin store was taken up by this rubble.


Plate 6 - Excavation for bin store showing rubble (34), looking southeast
6.10.7.To the northern end of the site a series of service trenches were excavated around the location of the new toilet block. These were excavated into the modern overburden (46) as identified within the main excavation area. The deposit was not bottomed in this area of the site.
6.10.8.It is clear that the area to the north of the excavation area, along the alley frontage, was taken up in the past by brick buildings on sandstone foundation blocks. These are clearly depicted in the $19^{\text {th }}$ century Ordnance Survey maps of the area and were demolished in the late $20^{\text {th }}$ century.
6.10.9.A full site matrix can be found in FIGURE 26.

## 7. Discussion and Conclusions

7.1.An archaeological excavation and watching brief were carried out on the site of Got Wine, 10 Commonhall Street between August and September 2007. The archaeological work comprised an excavation of the area designated for new foundations and a watching brief on the related services and landscaping.
7.2.The redevelopment of the site consisted of the addition of a new cellar and washing up area for the existing restaurant.
7.3. A series of six distinct phases of activity were identified on the site. These will be discussed below in chronological order.
7.4.Phase 1, medieval activity, is represented by the lowest deposit on the site. This is potentially a medieval garden or worked soil associated with the development of this area of Chester. Cut into this deposit was a single feature, a circular refuse pit that contained $13^{\text {th }}$ to $14^{\text {th }}$ century ceramic fragments.
7.5.Phase $2,16^{\text {th }}$ century activity, consists of two refuse pits located to the eastern end of the excavated area. Ceramic finds from these pits place them in the late $16^{\text {th }}$ century, with some intrusive Roman ceramics.
7.6.Phase $3,16^{\text {th }}$ to $17^{\text {th }}$ century activity, consists of three refuse pits cut into a distinct cultivation soil covering the site. The cultivation soil comprised a large ceramic assemblage of mixed date, indicating that the soil had been turned a multiple occasions. The deposit is though to date to the late $16^{\text {th }}$ to early $17^{\text {th }}$ century with earlier ceramic fragments of medieval and Roman date.
7.7.The three waste pits cut into this cultivation soil are small scale and date to the late $16^{\text {th }}$ to early $17^{\text {th }}$ century, evidence by the ceramic, tobacco pipe and glass assemblages. Sealing several of these pits was a thick make up layer dating to the late $16^{\text {th }}$ to early $17^{\text {th }}$ century.
7.8.Phase $4,17^{\text {th }}$ century activity, is centred around a large refuse pit located to the centre of the excavation area. It is this pit that was identified on the earlier evaluation. The pit was a large oval shape cut into the $16^{\text {th }}$ to $17^{\text {th }}$ century make up layer noted above.
7.9.The assemblage from the refuse pit contained ceramic, clay tobacco pipe and glass as well as faunal remains. Taking the assemblage as a whole, the pit can be closely dated to between 1600 to 1650 . Environmental evidence indicates that this pit may have functioned as a cess pit in its early stages.
7.10.The faunal remains suggest that domestic refuse and table waste were discarded within the pit, as was evidence of small scale crafting and butchery. The above average inclusion of cattle feet suggest that low level butchery was being carried out. The waste matter being retained with the meat bearing areas sold on. The economic evidence from goose, domestic fowl, pig and cattle do seem to follow other contemporary sites, and evidence of butchery place this within a high status household from the $17^{\text {th }}$ century onwards.
7.11.Interestingly the high status household is also evidenced through fish remains. The presence of sturgeon within the assemblage is unusual as contemporary records state that sturgeon within the British Isles belonged to the Royal Family and only those with Royal Permits were allowed to catch and consume the fish.
7.12.Also dating to the $17^{\text {th }}$ century were the foundations for several structures. The base of the standing wall dividing the building fronting onto Commonhall Street from the yard area falls within this phase as do the remains to footings located to the east end of the site. These are thought to relate to earlier structures on the site demolished prior to the $18^{\text {th }}$ century development of the site.
7.13.Phase $5,18^{\text {th }}$ to $19^{\text {th }}$ century activity. This activity dating to this period is mainly made up of the structural development of the site. The area, prior to the $18^{\text {th }}$ century, had been cultivated garden and yard. This was typical of areas within urban centres of that time. Properties had small enclosed gardens in which small scale cultivation could be undertaken. In the $18^{\text {th }}$ century a number of structures were erected to the rear of the properties. These can be seen most clearly on the Ordnance Survey maps of the site. FIGURE 25 shows the overlay of these structures excavated on site in respect to the 1910 OS plan.
7.14.Phase $6,20^{\text {th }}$ century activity, is restricted to the levelling of the site in the late $20^{\text {th }}$ century following demolition of the $18^{\text {th }}$ century structures and the insertion of new services to supply the surrounding properties.
7.15.It is clear that the $17^{\text {th }}$ century refuse pit excavated is associated with a structure fronting onto Commonhall Street. Although several buildings may have utilised the yard area, the location of the pit and proximity to the Commonhall Street buildings support this.
7.16.The presence of high status imported ceramics and specific faunal remains within the assemblage point towards the property being occupied by a high status family, potentially a trader or merchant during the early to mid $17^{\text {th }}$ century.
7.17.From historic research it is known that this area contained merchants houses and high quality town houses during the $17^{\text {th }}$ century. Rich individuals started to construct larger brick buildings at this time, such as Dutch House.

## FIGURES




Scale I:500 @ A4













FIGURE 17 // Location of excavation areas


$\sqrt{\text { PROJECT // 0609C - } 10 \text { Commonhall Street, Chester }}$| DESCRIPTION // Location of excavation areas |
| :--- |
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FIGURE 19 // Plan of 18 th century alley
Site Area
10 Commonhall Street
$\qquad$
Excavation Area
$\underline{9}$
の
$-25.35 \mathrm{mOD}$



FIGURE $20 / /$ Plan of 18 th century alley
(
FIGURE 2I // Location of Cess Pit [2I]

[ $0 \pi 25.41 \mathrm{mOD}$


| PROJECT // 0609C - 10 Commonhall Street, Chester |
| :--- |
| DESCRIPTION // North facing section of cess pit [2I] |

Х. ЭOTO\#HつとV:d~T
FIGURE 23 // Location of pits [43] \& [45]
Scale I:20 @ A4
FIGURE 24 // Section of west passage
$0 \pi 25.33 \mathrm{mOD}$


-     - 



$\qquad$
FIGURE 25 // Overlay of I8th century buildings



PROJECT // 0609C - 10 Commonhall St, Chester

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## CHESHIRE HER RESULTS APPENDIX 2

HISTORIC MONUMENTS


LISTED BUILDINGS
Appendix 2 // Listed Building Locations


## FINDS \& SPECIALIST REPORTS APPENDIX 3

## SPECIALIST REPORT INDEX

Report 1 - Roman Ceramic (Gill Dunn \& Margaret Ward)
Report 2 - Post Roman Ceramic (Julie Edwards)
Report 3 - Clay Tobacco Pipe (David Higgins)
Report 4 - Glass (Hugh Willmott)
Report 5 - Shell (Kate Pack)
Report 6 - Metalwork (Kate Pack)
Report 7 - Environmental Potential (Emma Tetlow)
Report 8 - Faunal Remains I (Naomi Sykes \& Vanessa Wan)
Report 9 - Faunal Remains Recovered from Environmental Samples (Hannah Russ)

## REPORT 1. ROMAN CERAMICS

## 10 Commonhall Street, Chester

## Roman pottery assessment

## Introduction

Eighteen sherds of Roman pottery weighing 869 g were recovered from six contexts:

| Context | no. of sherds | Weight (g) |
| :--- | :--- | :--- |
| 20 | 2 | 38 |
| 41 | 9 | 743 |
| 42 | 2 | 17 |
| 44 | 2 | 25 |
| 59 | 2 | 20 |
| 62 | 1 | 26 |

Total $\mathbf{1 8} \mathbf{8 6 9} \mathbf{g}$ (average sherd weight 48.3 g )
Table 00: Quantification of the Roman pottery by context
All the pottery is in fairly good condition with little weathering or abrasion. The high figure for the weight of pottery from context (41) is due to a large fragment of a mortarium weighing 417 g . The assemblage represents a typical range of pottery found in Chester but the small quantity and residual nature of the material is of limited value to the interpretation of the site.

## Fabrics and forms

Despite the small quantity of pottery there is a range of ware types. The coarse wares include grey, orange, white-slipped orange, black-burnished, white ware and amphora. There are also two sherds of black colour-coated ware.

| Ware type | no. of sherds | weight (g) |
| :--- | :--- | :--- |
| Black-colour coated | 2 | 8 |
| Grey | 2 | 33 |
| Orange | 10 | 312 |
| White-slipped orange | 1 | 9 |
| Black-burnished | 1 | 16 |
| White | 1 | 417 |
| Amphora | 1 | 74 |

Table 00: Quantification of the Roman pottery by ware types
Vessel forms, where identifiable, include jars, beakers, mortarium, flanged bowl, amphora and a possible lid (though the size of the sherd is too small to be positively identified).

## Provenance

The orange, white-slipped vessels and one of the sherds of grey ware are local products from Holt and the Cheshire Plain kilns. There are also traded wares - black-burnished ware from Dorset; a grey Crambeck ware from Yorkshire; white ware from the Hartshill-Mancetter kilns in Warwickshire and Nene Valley colour-coated wares. The only imported vessel is represented by one sherd of a southern Spanish amphora (Dressel 20) from context (41).

## Dating

The majority of the pottery dates to the late first and early second century. Later material includes mid-late second century black-burnished ware from context (41); a fourth century grey ware flanged bowl from context (44) and a late second to mid fourth century mortarium from context (41). More precise dating of the mortarium is not possible without the rim of the vessel. The colour-coated vessels from context (42) and (44) are also mid second to late fourth century in date.

Gillian Dunn

## 10 Commonhall Street, Chester

## Ceramic building material assessment

## Introduction

Forty-six fragments of Roman ceramic building material weighing 19,628 g from ten contexts were recovered from the site. The majority ( 28 fragments) weighing $15,325 \mathrm{~g}$ were from context (41), a make-up layer. All the material is in a good condition with very little weathering and includes some very large fragments of tile, in particular from context (41). The building materials recovered from the site are typical of those found in Chester with the most likely source of manufacture being the legionary pottery and tile kilns at Holt. However, all the material appears to be residual, with the majority coming from make-up layers and post-Roman pits.

| Context | no. of frags | weight $(\mathrm{g})$ |
| :--- | :--- | :--- |
| 4 | 1 | 306 |
| 20 | 4 | 218 |
| 22 | 1 | 699 |
| 25 | 2 | 473 |
| 41 | 28 | 15,325 |
| 42 | 4 | 1000 |
| 44 | 1 | 140 |
| 59 | 2 | 774 |
| 60 | 2 | 443 |
| 62 | 1 | 250 |
|  |  | $\mathbf{1 9 , 6 2 8} \mathbf{g}$ |

Table 00: Quantification of Roman ceramic building material by context

## Forms

The majority of the tiles in the assemblage are roof tiles - tegulae and imbrices. There is also one fragment of an opus spicatum brick and nine indeterminate fragments of brick or tile.

| Tile type | no. of frags | weight $(\mathrm{g})$ |
| :--- | :--- | :--- |
| Tegulae | 21 | 11,818 |
| Imbrices | 15 | 4661 |
| Opus spicatum | 1 | 250 |
| Indeterminate | 9 | 2899 |

Table 00: Quantification of Roman ceramic building material by tile type

## Tegulae

Large flat roof tiles with raised flanges along their length. A range of flange types are represented, and where measurable vary in width from 17 to 48 mm and height from 40 to 65 mm . Many of the tegulae have cut-aways on the flanges (to enable the tiles to slot into each other) and both upper and lower cut-aways are present. The thickness of the tiles ranges from 21 to 35 mm .

In addition to the cut-aways, a number of the tegulae display particular features. A fragment from context (25) has part of a paw print impression, made before the tile was fired, probably that of a dog. A fragment from context (41) has part of a $20^{\text {th }}$ legion stamp, though only LEG and part of the first X are present (see Grimes 1930, fig 59, no 8). On the same tile there is part of a signature mark in the form of a single finger or tool swipe. Another tile from context (41) has three parallel 'cut' marks, running at right angles to the flange, on the sanded underside of the tile $c 45$ and 55 mm apart which appear to have been made after firing.

## Imbrices

Fourteen fragments of imbrices, or curved roof tiles, varying in thickness from 15 to 30 mm were recovered.

## Opus spicatum

One example of an opus spicatum brick was recovered from context (62). These small bricks were used for flooring, laid down in a herring-bone pattern. Approximately two thirds of the brick survives, being 65 mm wide and 30 mm thick.

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Gillian Dunn

# COMMONHALL STREET, CHESTER 10 CHS 07 

# A SUMMARY OF THE SAMIAN WARE 

by Margaret Ward MA MIFA

4 June 2008

## Introductory note

The products of the samian industry were highly standardised, and their study and publication have developed along standardised lines. The standard terminology is employed here. The abbreviations SG, CG and EG are used in the table and diagram to indicate vessels which were produced in South Gaulish, Central Gaulish and East Gaulish workshops. For other terminology, see Bulmer 1980 and Webster 1996.

Where date-ranges, rather than the use of epochs such as 'Hadrianic-Antonine,' have been given, these should not be thought more precise than the use of epochs. They were employed to facilitate detailed analysis of the material. Since none of the sherds were found in Roman contexts, they are not listed individually but a line-diagram and two tables are provided to summarise their date-ranges, forms, vessel types and fabrics. Exact numbers of vessels are used in the tables, but the overall totals according to EVES (estimated vessel equivalents) and weights are also given in the summary below.

Table 1, floating bar diagram showing production-date range per vessel (10)


Table 2, summarising all forms of vessel by fabric (total of $\mathbf{1 0}$ vessels)

| Form | SG | CG | EG | Total |
| :--- | :---: | :---: | :---: | :---: |
| $18 R$ | 1 |  |  | $\mathbf{1}$ |
| $18 / 31 R$ |  | 1 |  | $\mathbf{1}$ |
| $18 / 31 R$ or $31 R$ |  | 1 |  | $\mathbf{1}$ |
| 31 |  | 1 |  | $\mathbf{1}$ |
| 27 | 2 |  |  | $\mathbf{2}$ |
| 31 or $31 R$ |  | 1 |  | $\mathbf{1}$ |
| $31 R$ |  | 1 |  | $\mathbf{1}$ |
| $31 R$ group |  |  | 1 | $\mathbf{1}$ |
| 37 | 1 |  |  | $\mathbf{1}$ |
| Total | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{1}$ | $\mathbf{1 0}$ |

Table 3, summarising vessel types by fabric (total of 10 vessels)

| Vessel type | SG | CG | EG | Total |
| :--- | :---: | :---: | :---: | :---: |
| dish | 1 | 5 | 1 | $\mathbf{7}$ |
| cup | 2 |  |  | $\mathbf{2}$ |
| bowl, <br> decorated | 1 |  |  | $\mathbf{1}$ |
| Total | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{1}$ | $\mathbf{1 0}$ |

The 11 sherds in this collection represented 10 vessels ( 0.5 EVES, weight 165 g ). There were no footrings that might have indicated wear in use, but the average sherd weight was 15 g , a considerable weight that reflects the generally good condition of all the sherds. Table 1 represents the possible range of production-date for each vessel. Table 2 gives details of the forms of vessel represented and Table 3 shows their type. Four vessels were produced in South Gaul in the first century, five were from second-century Lezoux in Central Gaul and one was East Gaulish ware, most probably from Rheinzabern.

As seen on Table 1, all the SG samian vessels may well have originated in the Flavian period, though one was dated only loosely within the wide bracket c AD 60-100. The dating of the group is not unusual for a small sample from a site in the fortress.

None of the CG vessels was produced in the Trajanic or early-Hadrianic period at Les Martres-de-Veyre. Again, this is not unusual in such a small sample. The size of the sample makes it impossible to comment statistically, but these five vessels included three
that were produced within the range c 140-180 (see Table 1) and the latest CG vessel was produced in the period c 160-200. The single EG vessel will have been made at some point in the wide range c 160-240, probably in the period c 170-220 or 230 . This was a dish, an EG version of form 31R, that is most likely to have been made at Rheinzabern (see Tables 2 and 3). Whilst one EG vessel amongst ten cannot be taken to be significant, the presence of several such vessels in a larger group might have indicated 3rd-activity in the vicinity.

There were no potters' stamps, again as one would expect in such a small sample, but there was one decorated sherd:

## Context (20)

SG moulded bowl form 37. The lower decoration comprised a series of chevron-festoons (cf Nieto \& Puig 2001, bowl 475 from the Cala Culip wreck) including a spiral and a slightly blurred goose (probably Oswald type 2247). This is a common design for bowls in the period c AD 75/80-95 at La Graufesenque. Its occurrence on such vessels as Mees 1995, Taf 14.1 (Biragillus) may well indicate origin after c 80. Similar bowls have been noted previously in Chester, at such sites as Abbey Green 1975-77 (Ward, unpublished report). Weight 14 g . [Illustrate if you wish to illustrate something]

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## Samian Catalogue

Site: Trial 1

| Recd | Tr | Ctxt | $\begin{aligned} & \text { Sh } \\ & \mathrm{N} \end{aligned}$ | Phas | Fb | Form |  | Potter | Comments | Date Start | End |  | Nos <br> Ves | Condit | Same as |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  | 20 | 1 |  | SG | 37 | Dec | - | In the lower decoration, a series of chevronfestoons (cf Nieto \& Puig 2001, bowl 475 from the Cala Culip wreck) included a spiral and a goose (Oswald 2247?). This is a common design for bowls in the period c AD 75/80-95 at La Graufesenque | 75 | 95 | 1 | 1 |  | 0 |
| 2 |  | 41 | 1 |  | CG | 31R | Pln |  | Sherd from the wall/base junction of a dish that was produced in the range c 160-200, but this sherd appears earlier in that range, so perhaps c160-180 | +02 | +02 | 1 | 1 |  | 0 |
| 3 |  | 41 | 2 |  | CG | 18/31R or 31R | Pln |  | Sherd from the wall/base junction of a dish, probably transitional between forms 18/31R and 31R and produced most probably in the range c 140/150-170earlyAntonine period | +02 | +02 | 1 | 1 |  | 0 |
| 4 |  | 41 | 3 |  | CG | 18/31R | Pln |  | Rimsherd of a dish probably of form $18 / 31 \mathrm{R}$ and if so, produced in the range c 120-160 and most likely after c 140. | +02 | +02 | 1 | 1 |  | 0 |
| 5 |  | 41 | 4 |  | SG | 18R | Pln |  | Basal fragment with a high gloss on an excellent, highly-fired fabric | 70 | 90 | 1 | 1 |  | 0 |
| 6 |  | 41 | 5 |  | CG | 31 | Pln |  | Rimsherd of an Antonine dish (probably produced before c 180?) | +02 | +02 | 1 | 1 |  | 0 |
| 7 |  | 41 | 6 |  | SG | 27 | Pln |  | Adjoining rimsherds with a high gloss on an excellent, highly-fired fabric | 70 | 90 | 2 | 1 |  | 0 |
| 8 |  | 41 | 7 |  | SG | 27 | Pln |  | Fragment of rim (produced in the range c 60-100 but most probably Flavian) | 60 | +02 | 1 | 1 |  | 0 |


| Recd | Tr | Ctxt | $\begin{aligned} & \text { Sh } \\ & \mathrm{N} \end{aligned}$ | Phas | Fb | Form |  | Potter | Comments | Date <br> Start | End | Nos Sh | Nos <br> Ves | Condit | Same as |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9 |  | 44 | 1 |  | EG | 31R group | Pln |  | Rimsherd of a dish, one of the EG versions of form 31R, probably from Rheinzabern. Not closely datable in the range c160-240 (though possibly c 170-220). | +02 | +02 | 1 | 1 |  | 0 |
| 10 |  | u/s | 1 |  | CG | $\begin{aligned} & 31 \text { or } \\ & 31 \mathrm{R} \end{aligned}$ | Pln |  | A botched rimsherd | +02 | +02 | 1 | 1 |  | 0 |

## REPORT 2. POST ROMAN CERAMICS

# A report on the post-Roman pottery and tin-glazed ware floor tiles 

## from 10 Commonhall Street, Chester

## JEC Edwards, July 2009

(nb SF/illustration nos need to be added when illustrations are complete)

## Introduction

A total of 678 sherds, $38,556 \mathrm{~g}$, of post-Roman pottery were retrieved during an evaluation and excavations at 10 Commonhall Street by Earthworks Archaeological Services (Dodd 2006) and then LP Archaeology. The evaluation by Earthworks Archaeological Services discovered a pit containing a substantial assemblage of pottery dated to the first half of the seventeenth century. The pit was identified as having potential archaeological significance and full excavation was recommended before development of the site. The assemblage from the pit, retrieved during both phases of excavation, represents pottery and tiles dating from the late sixteenth-century to around the middle of the seventeenth century, it is in relatively good condition and appears to represent a household of some status. Parallels with a group of pottery associated with the Civil War at Beeston Castle plus the date of an associated group of clay tobacco pipes suggests a possible deposition in the 1640s, although there are some later post-medieval wares in the pit and underlying deposits. The pit lies behind the Bridge Street frontage and its fill supplements the sequence of pit fills ranging from the sixteenth to early eighteenth century excavated on the opposite side of the street at 25 Bridge Street (Garner 2008). None of the 25 Bridge Street pottery assemblages could be assigned to the Civil War period and thus the 10 Commonhall Street group is important not only for providing information about its potential owners but also adds to information about the development of pottery use and lifestyles in Chester in the seventeenth century.

## Methodology

The entire pottery assemblage from the excavation by LP Archaeology and the assemblage from Pit 1 identified during the evaluation by Earthworks Archaeological Services was identified and recorded in accordance with the minimum standards of Chester City Council Archaeological Service (now Cheshire West and Chester Council) and the Medieval Pottery Research Group (MPRG 2001). The pottery has therefore been quantified by sherd count and weight according to ware type and where possible form within context groups. The terms used to identify the wares are those employed in the Chester City Council fabric reference collection modified for the post-medieval period by the common ware names recommended by the Potteries Museum during an English Heritage sponsored training course in 1999. Forms have been defined as far as possible using terms recommended by the Medieval Pottery Research Group (MPRG 1998) The assemblage from Pit 1 was identified during the evaluation stage of the project (Dodd 2006) and the subsequent excavation and assessment (Edwards 2008) as being a significant assemblage and therefore a full analysis of this group was carried out including quantification by rim and base EVEs (Estimated Vessel Equivalent). Vessels considered worthy of illustration were noted during recording along with any particular features of form, decoration or peculiarities of ware. Fabric descriptions were made for the blackwares, Midland Purple-type wares, redwares, unglazed wares, yellow wares, slipwares and the unidentified wares that do not
already exist in the former Chester City Council Archaeological Service reference collection. The descriptions are based on the conventions used by the former Department of Urban Archaeology, Museum of London (DUA 1984).

This report describes and discusses the seventeenth-century assemblage of pottery and tinglazed ware tiles from Pit 1 and briefly summarises the remaining assemblage from the rest of the site. Full details of individual sherds can be found in the archive. Vessels found during the evaluation stage of the project are noted as E900 followed by the evaluation context number.

## Condition

As a whole the pottery assemblage is fragmentary. There are no complete unbroken vessels but one virtually complete Cistercian-type ware cup was found in (60), this is the only nearly intact vessel in the assemblage.

There is some variety within the overall fragmentary state. The medieval pottery is in a poor condition with fragment size being relatively small compared to the post-medieval wares; one exception is the rim and complete handle of a jar from context (60). The amount of abrasion varies amongst the medieval pottery and some sherds survive in a good condition, all however are clearly residual elements in the contexts in which they were found.

The fills of Pit 1 contain a number of semi-complete smashed vessels some of which can be almost totally reconstructed. Within the pit the condition of the sherds varies between contexts, with some being well preserved with glossy glazes whilst sherds to which they join in another context have a crazed, dulled glaze. In addition some of the fragments in the pit have been stained by cess deposits. The condition of the pottery in the pit and fragments from the same vessels found distributed throughout the fills suggests that it may be a primary deposit made at the same time or over a short period of time.

## Range

The site assemblage consists of predominantly domestic pottery dominated by pottery of the seventeenth century and to a lesser extent eighteenth and nineteenth century wares. Smaller quantities of medieval and sixteenth century wares are also present.

The range of wares are broadly comparable with those known from elsewhere in the city yet within this range are some less common imports and some unusual vessels. The seventeenth-century pottery consists of blackwares, yellow wares, Midland Purple-type wares, unglazed wares and smaller quantities of slipware, tin-glazed wares and Continental imports. The Continental wares include Cologne, Frechen and Westerwald stonewares, Spanish tin-glazed ware, Beauvais ware, and Spanish olive jar or amphora. Whilst these wares are not abundant finds in the city they do regularly occur forming a small percentage of assemblages. Rarer are pieces of two North Italian marbled slipwares and the complete rim of an Italian oil jar. An intriguing group of unusual funnel-shaped vessels in Pit 1 may have had an industrial function.

The pit groups and other deposits below Pit 1 contain pottery that is mixed in date. The fills, (41) and (60), in Pit 5 contain a relatively large group of medieval sherds with post-medieval pottery ranging in date from the $16^{\text {th }}$ to $19^{\text {th }}$ centuries including white salt-glazed stoneware
and transfer-printed wares. A transfer-printed ware sherd in (60) joins with a fragment in (14) the topmost layer on the site. The lowermost deposit in the stratigraphic sequence, (59), contains similarly mixed pottery but with a smaller number of medieval sherds.

The stratigraphic integrity of Pit 1 is compromised by the number and variety of apparently intrusive material in the underlying deposits. However the overall condition and range of the pottery in the pit are clearly different to that in the underlying deposits and combine to make a discrete group.

## Pit 1

Contexts (26), (25), (23), (22) and (20) form the fills of cut (21) and produced a total of 453 sherds of post-medieval pottery, 23131 g . In addition to vessels that appear to be part of a single deposit made around the middle of the seventeenth century there are a small number of intrusive later post-medieval fragments including nineteenth century wares as well as residual medieval pottery totalling 13 sherds, 270 g .

Table 1 Seventeenth-century ware types from Pit 1

| Ware | Rim <br> EVEs | Base <br> EVEs | Sherd <br> count | Weight <br> (g) | Pit <br> no |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Blackware | 573 | 599 | 161 | 10098 | 21 |
| Frechen stoneware | 0 | 0 | 3 | 188 | 21 |
| Martincamp flask | 0 | 0 | 3 | 119 | 21 |
| Midland purple-type ware | 212 | 187 | 38 | 4362 | 21 |
| N Devon gravel tempered <br> ware | 0 | 0 | 3 | 187 | 21 |
| N Italian marbled slipware | 0 | 0 | 2 | 12 | 21 |
| Redware | 205 | 24 | 20 | 1034 | 21 |
| Slipware | 52 | 123 | 19 | 998 | 21 |
| Tin-glazed ware | 209 | 85 | 31 | 1060 | 21 |
| Unglazed earthenware | 221 | 58 | 36 | 2402 | 21 |
| Unidentified import | 54 | 56 | 20 | 451 | 21 |
| Westerwald stoneware | 0 | 0 | 6 | 75 | 21 |
| Yellow ware | 460 | 557 | 110 | 2110 | 21 |
| Spanish olive jar | 0 | 0 | 1 | 35 | 21 |

Table 2 Seventeenth-century wares as a percentage of Pit 1 assemblage

| Ware | Rim <br> EVEs | Base <br> EVEs | Sherd <br> count | Weight <br> (g) | Pit <br> no |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Blackware | 28.9 | 35.5 | 35.5 | 43.7 | 21 |
| Frechen stoneware | 0 | 0 | 0.7 | 0.8 | 21 |
| Martincamp flask | 0 | 0 | 0.7 | 0.5 | 21 |
| Midland purple-type ware | 10.7 | 11 | 8.4 | 18.9 | 21 |
| N Devon gravel tempered <br> ware | 0 | 0 | 0.7 | 0.8 | 21 |
| N Italian marbled slipware | 0 | 0 | 0.4 | 0.05 | 21 |
| Redware | 10 | 1.4 | 4.4 | 4.5 | 21 |
| Slipware | 2.6 | 7.3 | 4 | 4.3 | 21 |
| Tin-glazed ware | 10.5 | 5 | 6.8 | 4.6 | 21 |
| Unglazed earthenware | 11 | 3.4 | 7.9 | 10.4 | 21 |
| Unidentified import | 2.7 | 3.3 | 4.4 | 2 | 21 |
| Westerwald stoneware | 0 | 0 | 1.3 | 0.3 | 21 |
| Yellow ware | 23 | 33 | 24.3 | 9 | 21 |
| Spanish olive jar | 0 | 0 | 0.2 | 0.2 | 21 |

Table 3 Forms in the Pit 1 assemblage

| Form | Rim EVEs | Base EVEs | Sherd count | Weight (g) | Pit no |
| :--- | ---: | ---: | ---: | ---: | ---: |
| jar | 1041 | 931 | 215 | 14012 | 21 |
| bowl | 106 | 45 | 27 | 1405 | 21 |
| candlestick | 0 | 100 | 1 | 209 | 21 |
| chamber pot | 242 | 135 | 41 | 1237 | 21 |


| cup | 61 | 56 | 12 | 186 | 21 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| dish | 194 | 154 | 46 | 2247 | 21 |
| unassigned | 0 | 34 | 64 | 1809 | 21 |
| tube | 123 | 15 | 15 | 719 | 21 |
| jug | 100 | 0 | 15 | 559 | 21 |
| lid | 95 | 0 | 2 | 301 | 21 |
| mug | 10 | 203 | 12 | 285 | 21 |
| pipkin? | 14 | 42 | 5 | 103 | 21 |
| flask | 0 | 0 | 3 | 119 | 21 |

Table 4 Forms as a percentage of the Pit 1 assemblage

| Form | Rim EVEs | Base EVEs | Sherd count | Weight | Pit no |
| :--- | ---: | ---: | ---: | ---: | ---: |
| jar | 52.4 | 55.1 | 47.5 | 60.6 | 21 |
| bowl | 5.3 | 2.7 | 6 | 6 | 21 |
| candlestick | 0 | 5.9 | 0.2 | 0.9 | 21 |
| chamber pot | 12.2 | 8 | 9 | 5.3 | 21 |
| cup | 3 | 3.3 | 2.6 | 0.8 | 21 |
| dish | 9.8 | 9.1 | 10.1 | 9.7 | 21 |
| unassigned | 0 | 2 | 14 | 7.8 | 21 |
| tube | 6.2 | 0.9 | 3.3 | 3.1 | 21 |
| jug | 5 | 0 | 3.3 | 2.4 | 21 |
| lid | 4.8 | 0 | 0.4 | 1.3 | 21 |
| mug | 0.5 | 12 | 2.6 | 1.2 | 21 |
| pipkin? | 0.7 | 2.5 | 1.1 | 0.4 | 21 |
| flask | 0 | 0 | 0.6 | 0.5 | 21 |

## Blackwares

These make up approximately a third of the pit assemblage but unlike some of the other wares few of the fragments can be joined to form complete profiles or almost complete vessels, not even when blackwares were examined from elsewhere on the site could fragments be found to complete any of the vessels in the pit. The presence of intrusive nineteenth century wares in the pit, the higher level of fragmentation plus the longevity of blackwares causes some difficulty in determining whether any of the fragments are themselves intrusive. All the blackwares in the pit were included in this study but the presence of some must be treated with caution in particular the almost complete lid.

Blackwares have fabrics varying in colour from red to purplish brown and dark glazes that may be brownish black, black or almost lustrous and purple. Sources for blackwares are Buckley in Flintshire, Staffordshire and south Lancashire; Buckley, where blackwares were produced from the beginning of the seventeenth century, is the nearest pottery production centre and many of the wares could be expected to have been made there but the other pottery centres cannot be discounted.

These wares provided Chester households with a range of table and storage vessels in the seventeenth century but jars are often the most prominent form and in all quantified criteria except for bases they dominate this assemblage. Other forms consist of bowls, drinking vessels, a chamber pot and a lid. The drinking vessels are mainly represented by bases, as the finer rims do not survive as well, thus when base EVEs are taken as the quantifying method drinking vessels form $43 \%$ of the blackware assemblage against jars which provide $36 \%$. The predominance of jars and drinking vessels in sixteenth and earlier seventeenth pottery assemblages was noted at 25 Bridge Street (Edwards 2008). Unlike Bridge Street no bung-hole cisterns were identified from the pit.

The wares in the pit fall into six fabric groups two of which, numbers 121 and 785 , occur in a group of the first half of the seventeenth century at 25 Bridge Street, Chester (Edwards 2008, 201); the other four fabrics are not paralleled in the Chester Fabric Reference Collection and are described below. The vessels are described by form divided into fabric groups.

## Jars and bowls

Rims are everted and thickened with square or rectangular profiles and often not neatly finished. Bases are generally clean of glaze. Only one example (not illustrated) has the scar of a kiln spacer in the glaze on the interior of the base suggesting that smaller vessels were not placed inside the majority of the jars for firing. However scars on the rim and underneath the base suggest vessels were mainly stacked upside down rim to base thus any small vessels fired at the same time may therefore have been placed on the base.

Fabric 121 for description see Edwards 2008, 201-202.
SF * B1 jar (25) and (23) rim radius 120 mm
A large jar with an everted rim with an indented vertical edge, concave upper surface and a bead on the interior edge. The rim is unevenly finished and kiln scars are present on the top of the rim. Prominent throwing rings are present on the body. Neither the body fragments nor the rim form a perfect circle and the vessel appears to have been slightly squashed before
firing. The clay fabric is purplish brown and an uneven purplish black glaze covers the interior and exterior.

SF* B5 Jar (25) rim radius 130 mm
Thickened rim with a concave top and rounded exterior edge. The scar of a horizontal strap handle is present below the rim. The glaze is patchy around the rim and the outer edge is unglazed. Finger smudges are present in the glaze on the rim exterior.

SF* B7 Jar (23) and (25) radius 52 mm
A tall pear-shaped jar with a simple flat topped rim that flares out slightly from a cordon at the neck. A vertical tapered concave strap handle springs from the neck cordon and terminates just above the girth. The joins at the rim and body are not cleanly finished. Two handles possibly existed. The jar is relatively highly fired and the glaze is more brown than black and lustrous in places. The form has parallels with Midland Purple-type wares.

SF* B9 Bowl (25) radius 140 mm
The rim is similar to SF* B8 but thinner and parallels a bowl from Beeston Castle period 7 (Noake 1993, 194 fig 132.38). A black/brown glaze covers the interior and exterior walls but the rim is largely unglazed.

Fabric 785 for description see Edwards 2008, 201-202.
B2 jar (22), (23) and (25) base radius 110 mm
The lower part of a large jar with slightly rounded walls which become concave at the lower part of the wall before flaring out to the base. The lower walls and base are thick in relation to the upper part of the vessel. The base is slightly concave, wear marks are present around the perimeter and wipe marks are present over the surface. The interior of the base has cracks that follow the throwing rings and have been filled with glaze. The glaze covers the interior and exterior of the vessel but it varies in thickness, appearing glossy where thickest.

SF* B6 Jar? (25) base radius 95 mm
A round bodied jar or possibly a deep flared bowl. The base angle is almost perpendicular and the vessel wall rises steeply up before curving outwards. The wall is relatively thick at the base but thins considerably towards the upper part of the vessel. The small area of surviving base has a worn glaze. The vessel is glazed internally and externally and the glaze varies from thick glossy black/brown to black/purple and lustrous.

## SF* B8 E900 (20) Bowl rim radius 150 mm

Bowl with a flared profile. The heavy thick rim has an indented profile. The vessel is glazed externally and internally but the glaze around the rim is patchy. A kiln scar is present on the top of the rim.

SF* E900 (23) Chamberpot rim radius 85 mm , base radius 55 mm

A finely thrown vessel with a wide everted internally bevelled rim above a rounded body and a flat base that has a rounded foot. A narrow tapering loop handle is set high on the body. The edge of the base is worn from use. The vessel has been highly fired giving the glaze a lustrous purple brown finish. This is an early form of chamber pot; similar shaped vessels in blackwares and yellow wares were found in the period 7 Civil War deposit at Beeston (Noake 1993, fig 131.21, fig 137.116 and 118). Similar shaped vessels made in SurreyHampshire Border wares in the early to mid-seventeenth century are also identified as chamber pots (Pearce 1992, 68-9, figs 39-40).

## Fabric 1

A hard red fabric with a harsh feel and hackly texture. Inclusions consist of: abundant, wellsorted sub-angular and angular medium sized quartz grains; moderate fine streaks of white clay; moderate ill-sorted, fine to very coarse red iron-rich compound. A glossy crazed glaze.

SF* B3 jar (23) rim radius 115 mm
A thickened squared rim which has a bead on the interior edge. Two cordons are present at the girth or shoulder. A good glossy glaze covers the interior and exterior but is patchy around and over the rim. A similar jar was found in period 7 at Beeston Castle (Noake 1993, 192 fig 130.1).

SF* B4 Jar/Bowl (25) and (23) base radius 105 mm .
Rounded jar or possibly a bowl, thin walled and base. The base is slightly concave with a narrow foot. Wipe marks are present in the clay of the base.

## Fabric 2

A hard orange fabric with a rough feel and an irregular texture. Inclusions consist of: fine to coarse streaks of white clay; moderate fine to very coarse irregular shaped red iron-rich compound; sparse fine and medium sub-angular yellow/white vitrified clay fragments; sparse fine sub-angular quartz grains. Lustrous black/brown glaze.

SF* B10 jar E900 (22) rim radius 115 mm
SF* B11 Jar (23) and E900 (20) base radius 115 mm
Base of a jar possibly the same vessel as B10. Unlike most of the other blackware jars the almost flat base has an uneven glaze which contains a curved kiln scar. The interior has a lustrous black/brown glaze and a thin brown deposit. The exterior is unglazed. A short narrow kiln scar parallel to the throwing rings is present on the interior.

## Fabric 3

A hard orange fabric with a smooth feel and an irregular texture. Inclusions consist of abundant ill-sorted fine to coarse sub-angular quartz grains; moderate fine white clay streaks; moderate fine to coarse irregular iron-rich compound; sparse fine to coarse irregular white clay fragments. Thick black glossy glaze.

SF* B12 Lid (22) radius 63 mm

A flat lid with a broken knob handle. It has an irregular circular shape, with bevelled edges. The upper surface is glazed with an unglazed margin around the edge. Possibly intrusive as a similar lid has been found in a nineteenth century contest in Chester (unpublished Hamilton Place, CHE/12HP92).

## Fabric 4

A hard red fabric with a rough feel and a hackly texture. Inclusions: moderate fine streaks of red and white clay; sparse medium and coarse sub-angular and rounded quartz; sparse fine to coarse irregular red iron-rich compound. A very fine red all-over slip covers the exterior. Slightly lustrous crazed glaze that appears brown.

SF* E900 (20) jar radius 100 mm
Jar with a thickened squared rim above a fine walled body which has prominent throwing lines on the interior and exterior. A glaze covers both surfaces but is patchy on and around the rim.

## Drinking vessels

The drinking vessels fragments that are present suggest that vessels fall into two principal types. The majority are small mugs with bands of cordons just above the base and at about three-quarters of the way above the base parallel with the upper handle join. A smaller number of narrow based cups including what appears to be a fragment from a facetted beaker form the other category.

The mugs have bases in the range $28-50 \mathrm{~mm}$, whilst a number of flaring everted rim fragments were found it is difficult to determine whether they are from mugs or cups and none join the base and body fragments. Bands of two or more horizontal cordons are present below the neck and above the base and faint wheel throwing rings are visible around the body. The base angles are slightly rounded and some examples have a series of short scratches around the perimeter suggestive of something being pushed under the edge to remove them from the wheelhead. The bases are slightly concave and the surface appears to have been wiped smooth. Where large areas of the base survive linear marks can be seen incised into the surface, makers marks are not common on wares of this date but the close similarity to marks on some of the mugs found in the Civil War date deposit at Beeston Castle (Noake 1993, 195 fig 133.50 and 56) and on pottery excavated from other sites in Chester including the Civil War defences at Abbey Green, Chester (Rutter 1987, 26-27) suggest that this may be their purpose. The best example is no 1 (22) but it does not form a recognisable letter or number. Some examples are soot blackened under the base.

Handles are either narrow and strap shaped or flattened rods with a ridge running along the upper surface. At least two of these mugs have opposing vertical loop handles which alternate with a pair of double looped handles. The vessels are well glazed inside and out. Generally the glaze stops just short of or at the base but in some cases it has overrun the base edge and the vessel has had to be chipped way from a kiln surface.

The remains of two narrow based cups were found in the pit. One has a rounded foot with ribbing above (no 8). The other is a facetted fragment (not illustrated) possibly from a facetted stem drinking vessel of the type identified at Rainford, Merseyside (Davey 1986-87,

129 fig 6), which was noticeably absent from the 25 Bridge Street assemblages although examples have been found in Chester previously (Rutter 1990 fig 99.6).

With the exception of the facetted fragment the drinking vessel assemblage is very similar to that from the Civil War period 7 at Beeston Castle in respect of the range of vessel forms, the detail of vessel forms and the incised marks on the base (Noake 1993 195, fig 133 4857).

All the fragments are made from the red earthenware fabric 784 (Edwards 2008, 201).
SF* 1 Mug (22) base radius 31 mm . The base is unglazed and a symbol consisting of a straight line crossed by a ' $v$ ' shape is scratched into the surface.

SF* 2 Mug (25) base radius 45 mm dark brown glaze and a bright red fabric probably a low fired blackware, tapered rod handle.

SF* 3 Mug (25)
SF* 4 Mug/cup (25) radius 50 mm
$\mathrm{SF}^{*} 5$ Cup or jar (23) radius 50 mm high fired purple fabric.
SF* 6 Cup E900 (22) radius 42 mm
SF* 7 Mug E900 (22) base radius 50 mm . Incised line on the base and kiln scar of two fragments of clay stuck in glaze over spilled from the body.

SF* 8 . Cup base radius 28 mm . The fragments appear heat damaged and possible handle scar covers part of the foot.

## Yellow wares

These are wares with a pale pink to buff fabric and a clear lead glaze giving vessels a colour that can vary from pale yellow to pale orange. White or pinkish slips are sometimes used under the glaze to give a deeper or more even yellow colour. Yellow wares form a major component of seventeenth-century assemblages in Chester providing smaller storage vessels, dishes and drinking vessels, chafing dishes, money-boxes, candlesticks and occasionally pipkins. Using rim EVEs they provide $23 \%$ of the pit assemblage however if base EVEs are used this rises to $33 \%$ almost equalling the blackwares. Their place of production is currently unclear but Rainford, Merseyside is a potential source or possibly the Midlands.

The assemblage in the pit predominantly consists of varying sizes of jars; also present are dish fragments as well as a lid and a cup. The jars, in particular the small so-called drug jars, display a greater variety of shapes than previously published from sites in the city of Chester but there are clear parallels with the Beeston Castle Civil War group. Some of the smaller jars appear to be imitating tin-glazed ware waisted forms of the sixteenth and early seventeenth century. One jar fragment (not illustrated) has slip decoration consisting of a line of short vertical lines.

The vessels from the pit can be divided into three fabric groups. The first is coarser and a creamy white to pink colour with a white or pale orange slip under the glaze and corresponds to fabric 50 (Edwards 2008, 202). The second is a creamy white with fine red iron-rich inclusions, a fine white slip is sometimes present under the glaze; the fabric corresponds to fabric 786 identified at 25 Bridge Street (Edwards 2008, 203). The third fabric is very fine with a pale pinkish white colour and a white slip under the glaze. All the vessels are well glazed with jars being glazed internally and externally although the glaze often stops short of the base, whilst only the upper surface of dishes are glazed.

Fabric 50
SF16 (22) Jar rim radius 30 mm
Everted rim with a narrow external bevel above a sloping shoulder with a clearly defined edge and a convex wall.

Jars
SF 19 D2 Jar (22) and (23) height 70 mm , rim radius 34 mm , base radius 22 mm
An everted rim above a round shoulder and sides that narrow into a constriction above the base giving the vessel a top-heavy appearance. The base is flat and smooth apart from the perimeter which has a shallow upstanding edge. The base angle is acute creating a narrow flared foot. The walls are thin and slightly irregular around their circumference. A thick white slip covers the interior and the exterior stopping short of the base, thus the exterior appears yellow with an orange foot. It parallels two jars from Beeston Castle (Noake 137.109 and 111).

SF21 D3 Jar (25) height 75 mm , rim radius 45 mm , base radius 25 mm
A narrow everted rim that thins towards the rim edge. A rounded high shoulder sits above walls that narrow to a constriction above a flared foot. The rim is wider than the base and also uneven around its circumference giving the jar a top-heavy slightly lop-sided appearance. The base is very slightly concave and smooth, unlike SF 19 the perimeter has been trimmed flat. The glaze is uneven and patchy above the foot and has crept under the base in places; patches on the interior and exterior surfaces are reduced green and overall the glaze varies from yellow to orange. Patches of slip give the surface a patchy yellow and orange colour. A kiln scar is present just below the shoulder on one side. Parallels a vessel from Beeston Castle (Noake 137.109).

SF 20 (23) Jar with tripod feet, rim radius 65 mm , base radius 44 mm
Everted rim and a convex neck with a raised rib or cordon at its base. The rim does not join the surviving body fragments but appears to be from the same vessel. The rounded body has a raised cordon at its girth and then narrows into a constriction above a rounded base angle. A triangular shaped foot has been applied at the base angle and smoothed into the concave base. The glaze stops just below the girth and a patchy white slip is present on the interior and exterior and extends to the edge of the base giving the vessel a yellow and pale brown colour surface. A vessel with a similar rim appears at Beeston Castle (Noake fig 137.114). Similar yellow ware vessels with tripod feet have been excavated in Chester e.g.

Hunter Street School but are unpublished. The foot of this vessel is worn but there are no signs of burning or sooting suggesting that vessel was not used as a pipkin although its form is similar.

SF* Jar E900(23) Rim radius 55 mm , base radius 50 mm
Jar with a narrow everted rim the walls curve out from the neck constriction to make a vessel that has slightly convex walls that narrow just above the base. The base is flat and has faint parallel scratches and drag marks either from trimming or from a wire used to detach the jar from the wheelhead. There are irregularities in the surface and throwing so that the vessel has an uneven appearance. The glaze is thin and sparse in places and stops short of the base leaving an unglazed band $20-25 \mathrm{~mm}$ around the lower part of the vessel. A patchy thin pale orange/pink slip is present under the glaze giving some areas a deeper yellow colour than others.

Fabric 786
SF22 Jar (25) rim radius 27 mm .
An everted rim above a narrow sharply defined sloping shoulder. The vessel wall slopes inwards from the shoulder and appears to be concave thus paralleling tin-glazed ware waisted jars. The fragments are well glazed internally and externally. A crack on the outer surface of the body and rim is covered by glaze.

SF17 Jar (25) rim radius 27 mm
An everted rim with a bevelled edge above a concave neck and a well defined angled shoulder. The wall appears to be narrowing into a concave waist. The glaze is brown at the broken edge and the fragment has possibly been burnt.

SF15 Jar (25) rim radius 65 mm
An everted horizontal rim with a bevelled edge with a short neck above a sloping angular shoulder. Parallel incised horizontal lines are present on and below the shoulder. Small areas of brown speckling are present in the glaze which is smooth and glossy on the exterior but uneven on the inside.

SF 18 Jar (25) and (22) height 76 mm , rim radius 30, base radius 23
An everted rim that thins towards its edge above a rounded shoulder. The walls are straight and narrow towards the flat base which has a rounded acute base angle. The base is thick particularly in comparison to the relatively thin walls. Scratches and smudges of clay mar the otherwise smooth surface of the base in which are three incised lines, two of which cross. These may be a maker's mark similar to that on some of the blackware drinking vessels. A similar vessel appears at Beeston Castle (Noake fig 137.110)

SF25 Jar (23) and (25) rim radius 65 mm , base radius 65 mm

An everted rim with external bevel above a sharp neck constriction and a well defined but narrow shoulder. The body becomes convex before narrowing back towards the base which is slightly concave. Wheel throwing rings are prominent on the interior but less so on the exterior. The base is smooth with faint scratches and wipe marks; small fragments of red clay adhere to the surface. Numerous brown iron rich spots and sparse streaks are present in the glaze. A similar rim form appears at Beeston Castle but on a smaller vessel with concave walls (Noake 199 fig 137.113)

Lid
SF23 Lid radius 65 mm
A conical lid with a simple rounded rim. Wheel throwing rings are present on interior and exterior surfaces. Glaze covers the exterior but stops short of the rim edge leaving a narrow unglazed band.

## Fabric 5

A very hard pinkish white fabric with a smooth feel and a fine texture. Inclusions consist of: moderate very fine red clay specks; sparse coarse irregular red clay particles; sparse subangular and angular yellow vitrified clay fragments with sparse fragments up to 1.5 mm ; sparse fine-medium red iron-rich pellets and irregular fragments; fine streaks of red clay. Fine powdery white slip also containing very fine red specks.

SF24 Dish (22) and (23) rim radius 165 mm
A large wheel thrown dish with a beaded rim with an external bevel. An upstanding cordon marks the boundary between the rim and body. A white slip has been applied over the upper surface and extends over the rim with runs over to the back of the dish, where a curving line of glaze is present as a kiln scar on the reverse of the dish. Base fragments (unillustrated) possibly from the same vessel show sweeping bands of knife trimming and areas of soot blackening. The glaze is glossy but crazed.

## Midland Purple-type wares

The term Midland Purple-type ware is used in this report to describe grey to brownish-purple wares which have almost vitrified fabrics and when present a relatively thin lustrous glaze. They are broadly similar to wares from the Midlands made in the late medieval to early post-medieval period. Some wares found in Chester may come from the Midlands but varieties in fabric and form suggest that there may have been a production of purple wares in the north west. As Midland Purple ware is a generally understood term it was felt that it should be retained with the addition of 'type' until a more precise term linked to production site/s can be decided in the future.

Roughly cylindrical jars of varying heights form all the identifiable vessels in this ware which contributes around $11 \%$ of the pottery assemblage in the pit. Rims are collared with a slightly everted rim edge but on thicker walled examples the collar is less pronounced. The shoulder curves out slightly before sloping inwards and then flaring outwards toward the base. Bases are virtually flat but tend to be slightly concave at the centre. Knife trimming is present on one or both sides of the base angles which veer inwards from the perpendicular.

The inside of the base is coated with a glossy glaze that varies from brown to a purplish black. Runs of glaze are present on the insides of the walls suggesting vessels were fired upside down. Patches and pools of glaze containing rim scars and the remains of kiln spacers on all the base fragments confirm this. Horizontal loop handles survive on three vessels, these may have been in pairs but the spacing between the surviving handles on SF* MP1 suggest this vessel had three or possibly four handles.

The broadly cylindrical form with slightly concave walls, collared rims and horizontal loop handles is similar to several of the vessels attributed to period 7 at Beeston Castle and all thought to have been in use during the Civil War (195 fig 133.63 and 65, fig 134.72, 75 and 76). Such forms were not identified in the 25 Bridge Street assemblages, although no groups from that site could be attributed to the Civil War period.

Fabric description, fabric 299
A hard fabric with a rough feel and an irregular fracture, colour varies from brownish purple to orange brown and buff when underfired. Abundant inclusions are visible in the low fired example and consist of: moderate ill-sorted sub-angular fine to coarse quartz; moderate illsorted red and black iron-rich compounds; moderate ill-sorted yellowish vitrified clay fragments; sparse fine flecks of red clay. Glaze varies from glossy to dull and is only present on the interiors.

SF* MP 1 jar (23) + (25) height 199 mm , rim radius 110 mm base radius 113 mm
Everted collared rim with internal bevel; a short horizontal strap handle has been attached just under the lower edge of the collar but arches up at its centre so that the upper edge covers the edge of the collar giving a hood-like appearance to the handle. Two handles survive but the distance between suggests that there may have been three or four, a similar multi-handled jar suggested to have possibly five handles was found at Beeston Castle (fig 133.65). Knife trimming either side of the base angle sharply defines the edge of the base. The scars of rectangular kiln spacers can be seen in patches of glaze on the base. A glossy thick purplish black glaze covers the inside of the base.

SF* MP 2 jar (22) + (25) height 212 mm rim 125 mm , base 125 mm
Wide collared rim with narrow internal bevel. The collar is deeper and less pronounced than on MP1 or MP4. A raised cordon marks the shoulder. A single handle survives and is attached just below the rim with the upper side of the handle overlapping the lower edge of the collar. The lower side of the base angle is knife trimmed. A thick glossy brown glaze covers the inside of the base and lower wall. Interestingly one side of the vessel is high fired and purplish brown as is normal for these wares but the other is underfired resulting in a pinkish buff section with orange surfaces which would not have been classified as a Midland Purple-type if found alone.

MP 3 jar incomplete height 235 mm , base radius mm
Taller than the other vessels the walls are more concave flaring out to the base. There is a narrow continuous band of knife trimming at the base angle giving a bevelled edge and more
knife trimming under the base around the perimeter. There is a rough circle of glaze under the base within which there are rim scars. The form is has some similarity to Staffordshire butter pots (Brears *) which are not common in Chester. Throwing rings are visible on the interior but the exterior has been wiped smooth.

MP vessel 4 (23), (41) and E900 (22).
A thinner walled vessel with a collared rim and a horizontal strap handle attached in same way as MP1 and MP2 but with the addition of clearly defined finger impressions at the terminals. The fabric is redder than the other examples and varies to purple brown.

## Unglazed wares

A number of unglazed wares are present, their place of manufacture is currently unknown, although the use of Coal Measure clays amongst these suggest that some may have been made in North Wales. Two fabric groups have been identified.

## Fabric 6

A hard orange/pink fabric, with a rough feel and an irregular texture. Inclusions consist of: moderate ill-sorted fine to coarse, sub-angular yellow vitrified clay fragments; moderate streaks and fine to coarse fragments of white clay; moderate ill-sorted fine to medium subangular quartz; moderate fine streaks of red clay; sparse fine to coarse red clay fragments. Surfaces are a dark orange.

The identifiable forms consist of the remains of at least three vessels open at each end whose use is unknown and have been termed tubes, a handled jar and a shallow dish with a pierced base.

SF* Tube 1 (23) radius rim 85 mm , base 70 mm
SF* Tube 2 (22), E900(22) and E900(20) radius 55 mm
Fragments from several unusual open-ended 'vessels' are present in contexts (22) and (23) as well as from the evaluation excavation. They have been thrown as a flaring truncated cone shape and throwing rings are prominent on the interior. The wider end has a narrow everted rim and the base has been cut away leaving a flat simple rim. The inner edge of the 'base' has been quite heavily knife trimmed leaving a smoothed band which varies in width on each example. The thickness of the walls also varies but generally they become finer towards the wider rim edge. The 'vessels' have been irregularly thrown so that they are not always a perfect cone shape. The upper wider rim radii are in the range $80 \mathrm{~mm}-85 \mathrm{~mm}$ and the lower $55 \mathrm{~mm}-70 \mathrm{~mm}$. One vessel has a complete profile and stands 180 mm high.

The overall shape of these 'vessels' is similar to supports used in kilns but they clearly have not been repeatedly fired and their walls are rather thin for this purpose. It is possible that they served as some sort of support for another vessel or object or were used as a type of funnel; alternatively they may have fitted together narrow end within wide to form a drain or pipe.

SF* (22) and (23) jar rim radius 120 mm
A wide collared rim with a squared edge. The body appears to be rounded with a band of
three parallel horizontal lines just below the shoulder. A vertical oval rod handle with a bevelled upper surface has been applied over the lower edge of the neck. The vessel is similar in form to the jar with the pierced base below. The clay fabric is very hard and higher fired than other examples in this group.

## SF8 (25) Dish rim 100 mm base 90 mm

A shallow vertical sided dish with a thickened club rim. The base is flat and the base angle has been knife trimmed creating a bevelled edge. The remains of a pierced hole is present just above the base angle. Another fragment possibly from the same vessel was found during the evaluation excavation in context (E900(20)) and has two similar piercings.

## Fabric 7

A hard fabric with a pale pink core, buff margins and buff to pale brown surfaces, a smooth feel and irregular fracture. Inclusions consist of: moderate ill-sorted fine to medium subangular quartz; abundant flecks of red clay; sparse coarse red clay fragments; sparse streaks of red clay; sparse coarse pink rock fragments, fine streaks of white clay; sparse fine to coarse red iron-rich compound. Sparse spots of orange/brown glaze are present on the interior and exterior.

SF * Jar (25) height 198 mm , rim 130 mm base radius 110 mm
Round shouldered jar similar in form to a squat chamberpot with a square heavy thickened rim. The base is flat and the basal angle poorly finished. The base is incomplete but the surviving fragments show it to have a number of circular piercings. Small spots of glaze appear on the interior and exterior. A sherd joining this vessel was found during the evaluation excavation, E900 (23), when it was identified as a colander however the fragments found during the full excavation show that the vessel is not a traditional bowl or dish-shaped colander. The use of this vessel is not immediately apparent other than as some type of strainer; it may have had some sort of industrial function if not culinary.

## Tin-glazed wares

Tin-glazed wares make up 10.5\% of the assemblage using rim EVEs but this falls to 5\% when base EVES are used. They consist of polychrome decorated dishes, a mottled manganese purple jug and plain white wares consisting of chamber pots, dishes, a jar and a mug fragment (not illustrated). If a deposition date of before 1650 is taken for the pit group then the wares probably originate in London or the Low Countries. Such a relatively large and varied assemblage of tin-glazed wares is unusual for the mid-seventeenth century in Chester and the suggested Civil War date was initially doubted however some parallels can be drawn with an assemblage excavated at Basing House, Hampshire (Moorhouse 1970). Basing House was totally destroyed by fire in October 1645 after a Civil War siege thus a terminus ante quem of this date can be given to the pottery found during excavations at the site (Moorhouse 1970, 41). A similar range of plain, mottled and painted tin-glazed wares, many of them burnt, were found at as 10 Commonhall Street thus suggesting that the latter assemblage may well have been in use in the earlier part of the 1640s.

Dishes

SF11 Dish (25) and (26) rim radius 130 mm , base radius 95 mm
Moulded deep dish with two lines of intersecting gadrooning with a scalloped rim edge, a flat base and a plain white glaze. Plain moulded dishes are known painted with dates between 1649-1675 (Lipski and Archer 36-37). A close parallel for the particular shape of this dish has a plain white glaze with the painted date '1653' (Lipski and Archer 40, 101).

SF10 dish (22) rim radius 115 mm , base radius 40 mm
Thick walled dish with broad rim flange and a footring. A thick white glazed covers the upper and lower surfaces. A dish of this form appears in the Beeston Castle period 7 assemblage (Noake 197, fig 135.86) A piece from the same or a similar dish was found during the evaluation from the equivalent context to (25)(E900(23)).

The style of decoration and the colours on the painted dishes parallel vessels dated to the second quarter of the seventeenth century (Orton and Pearce 1984, 54). Fragments of a single polychrome dish were found in contexts (22), (23) as well as (42) in the underlying pit (43) and amongst unstratified pottery.

SF* (22) dish
A small area of a grooved and beaded rim survives with a blue chequer-board pattern.
SF* Dish (22), (23), (42) and unstratified
Blue and green decoration consisting of swagging, flourishes and pyriforms.
SF* Jug (25) rim radius 18 mm
A manganese purple mottled jug with a cobalt blue painted rim, in a style that copies the shape of Frechen stoneware jugs; plain white jugs in a similar shape are often found painted with a date, initials and/or the name of an alcoholic drink. The majority of these dated vessels range in date from 1640-1660 (Archer 1997, 266). The technique of decorating vessels with a manganese purple mottled glaze is similarly dated appearing in the midseventeenth century and continuing into the second half of the century (Britton 1986, 121; Orton and Pearce 1984, 52-54).

Dishes
SF* Chamber pot (23) rim 85 mm , base radius 70 mm
Plain white glazed with an everted rim and raised cordons on the shoulder and just above the base, which is recessed. The kicked up base terminal of a strap handle is present below the girth.

SF* Jar E900 (20) rim radius 23 mm
Plain white glazed with a narrow everted rim with a marked shoulder and a slightly concave body.

## Slipwares

Slipwares form a relatively small proportion of the assemblage (see tables 1 and 2) and are represented by a candlestick, plain slipped dishes and small fragments of trailed slipware dishes. One fragment of a combed press-moulded dish is probably intrusive. The plain slipped dishes are covered in a layer of white slip so that they almost resemble yellow ware vessels. These plain dishes are included in this category because their clay body is much darker than that of yellow wares found with a white slip covering. Two fabrics are present both are hard Coal Measure clays similar to that of the low fired Midland Purple type ware and the Blackwares. The place of manufacture is unclear.

## Fabric 8

A very hard, dark red/brown fabric with a rough feel and a fine texture. Inclusions: moderate well-sorted sub-angular fine colourless quartz; moderate fine and sparse coarse red and black iron-rich compounds; sparse coarse quartz grains in a white cement; sparse fine streaks of red and white clay. Smoothed surfaces with a crazed and glossy glaze.

SF 3 (23) Candlestick base radius, A saucer candlestick with a thick based saucer with short flaring walls. The candle socket is missing but was supported on a ribbed thick walled pedestal on which are the remains of a looped handle. The base is flat and the edge has been knife trimmed using a series of short strokes and leaving a facetted edge. A series of white slip dots decorate the rim of the saucer.

## Fabric 54

A hard pink fabric with a rough feel and a fine texture. Inclusions: abundant angular and subangular, ill-sorted fine to coarse vitrified yellow/white clay fragments; abundant ill-sorted fine to coarse red iron-rich compounds; moderate streaks of red and white clay; sparse coarse red sandstone fragments. A glossy crazed glaze and an all-over white slip.

SF * contexts E900(20) and E900(22) Dish rim radius base radius.
A deep flared dish with an everted flattened rim with a beaded edge. The base is flat and a band of knife trimming is present just above the basal angle. Glaze has spilled over an area of the base and the exterior wall and a kiln scar is present in the glazed area of the base edge. A gouge is present in the wall just above the knife trimming. A layer of white slip covers the upper surface and extends over the rim edge in places. The slip is thin and patchy in places allowing the underlying orange clay to show as patches of brown/orange.

## Redwares

A small group of fragments represent vessels made from dark pink to orange Coal Measure clays with a clear lead glaze that gives vessels a glossy red appearance. Some speckling is present where the glaze has reacted with iron rich fragments within the clay fabric. It is currently unclear where these vessels were made; Buckley or one of the other Coal Measure clay producing areas such as south Lancashire or Staffordshire are potential sources.

## Fabric 9

A hard pinkish orange fabric with smooth feel and an irregular texture. Inclusions consist of: abundant ill-sorted fine to coarse sub-angular quartz; moderate ill-sorted fine to coarse red clay fragments; moderate fine streaks of red clay; sparse medium pellets of iron rich
compound; sparse ill-sorted fine to coarse irregular yellow vitrified clay fragments. A dull glaze lustrous in patches is present on the interior.

SF14 (22) and (23) Bowl rim 170 mm , base 80mm.
Flared bowl with a wide everted rim that has a beaded edge. A clear glaze covers the interior of the bowl but stops short of the rim, the exterior is unglazed. The base is flat and worn around the perimeter, a band of knife trimming is present above the base angle.

## Fabric 295

A hard orange/pink fabric with a smooth feel and an irregular texture. Inclusions: moderate fine to medium colourless and pink sub-angular quartz; moderate fine, medium red and black rounded and sub-angular iron-rich fragments; sparse irregular hard yellow/white clay fragments; moderate red and white clay streaks; sparse sub-angular fine grained pink/white rock fragments. A dull crazed glaze.

SF* (25) and (22) with fragments in E900 (20) and (22) Chamberpot? Rim 120 mm
A slightly rounded jar form with an everted squared rim. Glazed on the interior and rim with the exterior unglazed apart from splashes of glaze. No handle fragments are present but the form is similar to a narrow-rimmed chamber pot.

## North Devon gravel tempered ware

Three fragments (187 g) were found in contexts (20) and (22). Two pieces join but the third is from a different vessel, it is difficult to determine form but the joining pieces are possibly from a roof tile, unlike other pottery in the pit the pieces from (22) are abraded. North Devon gravel tempered wares first appear in the fifteenth century in south-west England (Evans 1979) however there is no evidence to suggest that they were being imported into Chester until the seventeenth century (Davey and Rutter 1977, 21 and 28) and this was confirmed at the 25 Bridge Street excavations (Edwards 2008) where they were also absent from early seventeenth century assemblages. Such roof tiles are uncommon finds in the city. It is difficult to determine whether these pieces are part of the same deposit as the main assemblage in the pit or if they may be intrusive.

## Unidentified ware

A dish and two bowls in a bright red/orange fabric appear to be imports to the region, the dish and one of the bowls have a creamy yellow trailed slip. The fabric corresponds to fabric 127 in the reference collection.

Fabric 127:
A soft orange red colour with a smooth feel and an irregular texture. Inclusions: abundant well-sorted fine, sub-angular quartz grains and sparse medium and coarse grains; moderate fine to coarse red iron-rich compound; moderate very fine and fine white mica; sparse coarse opaque white quartz; sparse fine streaks of red and white clay; sparse fine shiny black inclusion. Glossy, crazed glaze. Soft creamy white slip.

SF* (23) Bowl rim radius 110 mm .

Four fragments of a carinated bowl with an everted rim. The surfaces are abraded but there appears to have been a clear glaze in the interior with exterior unglazed apart from patches around the rim.
$\mathrm{SF}^{*}(25)$ Dish rim radius 100 mm , base 65 radius * mm .
Wheelthrown with an everted rim and a flat base. The rim has horizontal grooves/incised lines creating a bead at the outer and inner rim edges. A band of knife trimming is present just above the basal angle and splashes of glaze are also present on the reverse. An uneven slip trailed line decorates the rim flange and the body of the dish appears to have a trailed design based on four quadrants.

SF* Bowl (23) rim 110 mm , base 55 mm .
An everted rim with external bevel, slightly convex walls with a flat base. The rim and interior are covered in a clear glaze which on the exterior stops about two thirds of the way down the body. Patches of glaze are present on the base. The rim flange is decorated with lines of slip which vary from being perpendicular to diagonal to the rim.

## Continental wares

For fabric descriptions and definitions see Hurst et al 1986.

## Frechen stoneware (not illustrated)

Three fragments $(188 \mathrm{~g})$ from possibly two Frechen stoneware jugs are present in context (23). Two pieces join to form the base of an ovoid jug datable to the first half of the seventeenth century, a similar shaped vessel illustrated from Boymans-van Beuningen collection is dated 1625-1650 (Hurst et al 1986 220-221 pl 44).

## Westerwald stoneware

Six fragments ( 75 g ) from what appear to be the same Westerwald stoneware jug were found in contexts (22), (23) and the evaluation context (20). The pieces appear unusual because instead of the common relief moulded applied decoration they have impressed designs in a sea of cobalt blue colouring. Two motifs are present, one is circular with a floral motif in the centre and the other a spray arrangement of foliage and quatrefoils. A complete jug in the Wallace Collection uses impressed motifs, one of which is similar to the foliage and floral spray, in conjunction with relief moulded decoration, it is dated to the midseventeenth century (Norman 1976, 354-5C188); it is possible these fragments are from a similar jug. An apparently similar jug is also described from the Period 7 assemblage at Beeston Castle (Noake 1993 209).

## North Italian marbled slipware (not illustrated)

Two fragments ( 12 g ) from the body of a bichrome bowl or dish, with white marble slip on the inside and outside, were found in context (22). North Italian marbled slipwares were produced at various sites in northern Italy and are dated c.1600-1650 (Hurst et al 1986 3334), they are rarely found in Chester and only two fragments were found amongst the large assemblage of post-medieval pottery found at 25 Bridge Street Chester. A polychrome bowl or dish fragment was also found in context (41) see SF * below.

## Martincamp flask (not illustrated)

Three joining sherds (119 g) from the body were found in contexts (22), (23) and E900 (20) from the evaluation excavation. Martincamp flasks have a globular body and narrow tapering necks and are suggested to have been made at Martincamp, Normandy; Hurst has defined three types of Martincamp flask and this example with a red earthenware fabric falls into his Type III group dated to the seventeenth century (Hurst et al 1986, 102-104). A similar example from Dover Castle was found in a garderobe pit dated 1625-1650 (Hurst et al 1986, 104).

## Spanish Olive jar (not illustrated)

A single fragment ( 35 g ) from a jar or amphora was found in E900 (23). It is not possible to determine the shape of the complete jar which could vary depending on the contents; such jars were made in Seville in the late sixteenth and seventeenth century (Hurst et al 1986, 6667). Whilst not plentiful in Chester fragments are regular components of city centre assemblages.

## Tin-glazed ware tiles

The remains of five tin-glazed ware tiles were found in Pit 1 fills (20), (22), (23) and (25). All were either made in the Low Countries or London and range in date from the late sixteenth century to the mid seventeenth. Such tiles of this period are rare finds in Chester and this is the largest assemblage from a single site so far excavated in the city.

The tiles may have been used as floor tiles, in particular the fragments from (22) and (25) which show more surface ware than the others but tiles were also used in a fireplace surrounds (Archer 1997, 45-46). Although they are perhaps slightly thicker than wall tiles made in the Low Countries at this time (Tyler, Betts \& Stephenson 2008). The designs on all the tiles are types known to have been produced in the Low Countries but there is also archaeological evidence to show that the designs were copied on tiles made in London.

Documentary evidence shows one possible way in which tiles such as these may have arrived in Chester. Sir William Brereton who was MP for Cheshire in 1642 and became commander of the Civil War Parliamentarian force in Cheshire visited Amsterdam in 1634 and wrote of purchasing three sets of painted tiles for the hearth and chimney, these were packaged and shipped back to England as well as various paintings, plaster of Paris figures and posts, turtle doves and marble floor slabs (Brereton 1844, 59 and 69). Brereton had a house in Chester at the site of the Benedictine nunnery and another in the county. Such tiles were thus clearly desirable objects for the wealthy middle classes and suggest something of the type of household from which they may have been discarded.

The most complete tile has a polychrome design displaying a central pomegranate surrounded by small berries, foliage and flowers. At the corners are fleur-de-lys. The design is painted in blue, turquoise green, yellow and brown. A similar tile is in the collections of the Grosvenor Museum as an unprovenanced find (Davey and Rutter 1977, 26-27). Dutch tiles with this design are dated c.1600-1625 (Tyler, Betts \& Stephenson 2008, 54) but the pattern is also found on tiles fragments from Pickelherring pottery in Southwark which was in production from c. 1618 and also at Rotherhithe, Southwark which started production c.1638.

Further comparative work would be required to determine whether this tile was made in London or the Low Countries but the combined dating evidence places it in the first half of the seventeenth century.

SF 4 (20) 17 mm thick, width 133 mm ; two square sided pin holes are present in one corner.

The remains of two tiles have part of a polychrome design (blue, orange, yellow and turquoise green) known in London as the 'star and tulip' pattern (Vince 1984, 74-75) although the central area with the tulip is missing. The pattern was spread over four tiles and van Lemmen illustrates four monochrome blue decorated tiles that display the complete design consisting of a central star surrounded by pomegranates, tulips and grapes with smaller flowers and what appear to be acorns, although they could be flower buds (van Lemmen 2005, 8). Each of the fragments has a four sided pin-hole present on the glazed surface close to one corner. These are from the formers used to cut the tile shape from the soft clay, nails were placed at diagonal corners of the formers to prevent them slipping as the tile was cut (Noel-Hume 1977, 21).

One of two slightly smaller tiles ( 133 mm and 130 mm square) with the same polychrome design found at Aldgate in London has a blurred glaze and appears to be a second, its findspot close to the late $16^{\text {th }} /$ early $17^{\text {th }}$ century tin-glazed ware pottery at Aldgate has led to the suggestion that it may be a product of that kiln (Betts 1999, 173). However monochrome blue tile fragments, including a waste fragment, of a similar design have also been found on the south bank of the Thames close to seventeenth century tin-glazed ware potteries in Southwark (Noel-Hume 1977, 57 fig 11.3) and since identified as products of Pickelherring and Rotherhithe (Tyler, Betts and Stephenson 2008, 88-90, fig 142 D20/2; 57-58, fig 77 D20). The Commonhall Street tiles could therefore be English products but the design is also common in the Low Countries where they are attributed to the first half of the seventeenth century (Lipski 1970, 87; Noel Hume 1977, 58 quoting Korf 1964)

SF 1 (23) 15 mm - 16 mm (max) thick with bevelled sides, a four sided pin-hole is present on the upper glazed surface close to the corner.

SF5 (23) 15 mm thick, width 136 mm with bevelled sides, a four sided pin-hole is present on the upper glazed surface close to one corner.

The upper left and lower right corner fragments of two tiles of the same design were found in context (25) and during the evaluation excavation in the equivalent context (23) (Dodd 2006, 14). The complete design would have consisted of a two-handled vase containing a spray of different flowers within a quadrate or diamond shape (see for example Veeckman 1999, 123 fig 17). Tiles of this design are found in the Low Countries and Britain (Noel-Hume 1977 57, fig 11). Evidence for production is known from the Low Countries, for instance a waster has been found at Antwerp at a production site of the late sixteenth/early seventeenth century (Veeckman 1999, 115) but the design has also been identified as a product of the Pickelherring pottery in Southwark, London which was in existence by c. 1618 (Tyler, Betts and Stephenson 2008, 52-53 fig 54 D4).

SF 7 (25) 16 - 18 mm (max) thick with bevelled sides. Two four-sided pin-holes are present in the corner. Reserve blue decorated corner, diamond centre outlined in yellow and blue containing a red daisy-like flower with a yellow centre, green leaf and red and yellow flower bud, all outlined in blue.

E900 (23) 19 mm thick with bevelled sides. One four-sided pin-hole is present in the corner. Reserve blue decorated corner, diamond centre outlined in blue and yellow, a yellow leaf and the edge of a blue vase with a yellow handle, all outlined in blue but in the case of the leaf the yellow and blue have mixed creating a greenish turquoise colour. The surface of the tile is relatively heavily worn compared to SF7.

Unlike the other tiles which are all in a good condition the piece from (22) is a small abraded fragment. It is decorated in the so-called medallion style where a motif (e.g. an animal or bird) is enclosed in a border of concentric circles which in this case are dark blue and orange/brown. None of the central motif survives. The style was produced in the Low Countries and London and is suggested to be early seventeenth century in date (Britton 1986, 172-3), examples are known from Pickelherring pottery in Southwark, London where tile making ceased by the mid-seventeenth century (Tyler, Betts and Stephenson 2008, 40).

SF6 (22) 18 mm thick with bevelled sides.

## Other pit groups

Of the four pits underlying Pit 1 pottery was only retrieved from pits 2,3 and 5 . In general they contain fragmentary assemblages which are of far less potential than the Pit 1 assemblage.

## Pit 2

Context (42) contained a range of blackware sherds in relatively good condition which are of similar character to those from Pit 1. The forms present are largely jars with two bowls and a mug. A sherd from a tin-glazed ware dish joins with that from (22) in Pit 1. It is possible that some of the blackware sherds join with those from Pit 1. Sherds from a yellow ware jar and a small fragment of a sixteenth-century Beauvais ware are also present.

## Pit 3

Context (45) contained ten sherds, 165 g , of medieval pottery which is presumably residual. The wares present consist of local red/grey firing wares dating from the mid- $13^{\text {th }}$ century.

## Pit 5

Contexts (41) and (60) produced the largest assemblage of pottery in this sequence of pits. About a third of this assemblage consists of medieval pottery, largely locally produced red/grey wares but also fragments of Saintonge wares and late medieval wares from North Wales. Most of the medieval pottery is not identifiable to form but a pipkin handle and the complete handle and part of the rim of a large jar are present.

The post-medieval wares consist of a mixed assemblage varying in date from the sixteenth to nineteenth century. Sixteenth century wares are represented by part of a Cologne mug with a relief moulded design depicting 'Adam and Eve' and an almost complete Cistercian ware cup. The latter is in a high-waisted style with a tall vertical rim that is dated to the later part of the century or possibly c.1600. A fragment of a polychrome North Italian marbled slipware dish is the only other Continental import present. The later wares include mottled ware, part of a white salt-glazed stoneware tea-bowl, eighteenth-century blackwares, nineteenth century stoneware and transfer-printed wares.

## Individual pieces of pottery of note

## Cologne stoneware

SF 9 (41) Fragment from a stoneware mug (Pinte) with a relief moulded design showing the biblical scene of Adam and Eve in the Garden of Eden. The fragment shows Eve holding an apple in her left hand standing by a tree with an animal at her feet. Mugs with relief moulded biblical and classical scenes are typical of Cologne in the mid-sixteenth century (Hurst et al 1986, 200) but similar vessels are also known from Raeren (Hurst et al 1986, 200; Gaimster 1997,193).

## Spanish? tin-glazed ware

$\mathrm{SF}^{*}(4)$ fragment of a dish decorated in a thin white tin glaze on both surfaces with cobalt blue decoration on the upper. The decoration appears to consist of stylised foliage bordered by straight and wavy lines and bands around the edge. The piece has a fine, hard sandy fabric with a pinkish buff wide core and fine buff margins. The ware is not English or Low Countries and is possibly Spanish. A very similar fragment was found in the 2009 excavations in Grosvenor Park (CHE/GRP07 VI (805)) so similar that if they had been found together they would have been thought to be the same vessel. The fabric compares well with that of Columbian plain vessels and a piece of potential Sevillian lusterware (CHE/NGB 72/3 008B(2)).

## North Italian marbled slipware SF2

SF2 (41) rim fragment from a polychrome bowl or dish. The rim has been everted and flattened to give a collared rim effect. White and brown marbling is present on the exterior and interior but the interior has a green tinted glaze. Dating for these wares are as for the bichrome wares (see note above for Pit 21)

## Italian oil jar SF13

SF13 (14)Two sherds ( 3384 g ) forming the complete rim of an Italian oil jar, the heavy rim is upright with an internal lid seating. The fabric is fine red and slightly micaeous, a thin clear lead glaze is present on the interior of the body and rim. Small traces of a white slip and a green pigment possibly paint are present on the exterior which is heavily stained and encrusted with burial deposits. These large red earthenware jars would have stood to almost a metre high and had rounded shoulders with moulded crescent-shaped vestigial handles and a lower body that narrowed into a flat base.

Whilst it had been initially suggested that these jars were of Iberian origin (Noel-Hume 1980 144) scientific analysis by M J Hughes has shown that the fabrics are chemically similar to Tuscan and north Italian redware fabrics (Cotter 2000, 301) i.e. the same area as Montelupo, which supports documentary research by Ashdown linking the jars with the Italian olive oil trade and eighteenth and nineteenth century oilmen's shops (Ashdown 1974). Different grades of olive oil were imported; the best quality was known as 'salid oil' but other grades were used for cooking, burning (for lighting), soaps and lubricants (Ashdown 1974, 170). In Colchester, which had an important post-medieval textile industry and where a number of these jars have been found, olive oil was suggested to have been used as a lubricant in woolcombing (Cotter 2000, 305).

The jars were in use from the eighteenth and nineteenth centuries, a painting by Samuel Scott in 1757 of the Old Custom House Quay in London shows one of these jars and a second wrapped in straw and rope to protect it on its journey (Ashdown 1975, 239). Ashdown identified three types of jar; type $i$ is dated to the eighteenth century, type ii is nineteenth century and type iii late nineteenth and twentieth century. Types i and ii have similar rims and are differentiated by the presence/absence of applied stamped plaques below the handle. The rim on this example is comparable to the type $i$ and $i i$ rim form (Ashdown 1974 167, fig 3; Cotter 2000 302, fig 201) but as only the rim survives it is not possible to assign it to either century.

Such jars are rare in Chester the only other recorded excavated examples are from Seller Street/Witter Place where the remains of two jars were found (Edwards 2002) and fragments from 25 Bridge Street (Edwards 2008, 191); an unprovenanced example is also in the Grosvenor Museum collections. These jars have a wide distribution in Britain but finds tend to be concentrated in the east and south of the country, although the most westerly example in the British Isles is from County Cork (pers comm. John Cotter 2002). There are several possible reasons for the jars presence in Chester. They may have arrived in the city containing olive oil, which was imported to Britain through London (Cotter 2000, 305) and then sold by oilmen or Italian warehousemen (Ashdown 1974168 and 170) or the empty jars may have had served a secondary function either for storage: in the Caribbean they were used to hold water and in America soap (Noel-Hume 1980, 144) or as garden ornaments a purpose to which they are still put, the examples from Witter Place were found along side several flowerpots. In London the jars were painted and re-used as shop signs and occasionally can still be seen halved and cemented to nineteenth-century shop fronts (Ashdown 1974). The jars were often sold as empties at ports (John Cotter pers comm.) and Italian warehousemen may have had a role in their distribution when empty as well as full of oil. The Italian warehousemen (not all of whom were Italian) sold a variety of imported goods and by the end of the nineteenth century six are listed in Chester (Phillipson \& Golder 1893$94,166)$. One shop existed close to the site and it is tempting to suggest it as a source for this jar; Pietro G Bordessa's 'Original Bazaar' in Bridge Street Row advertised 'foreign fancy merchandise' in the mid-nineteenth century (Williams 1846). Oilmen and soap manufacturers were also present in Bridge St in the nineteenth century and may have been another source of the jar (Williams 1846, 17;Phillipson \& Golder 1870, 86; Phillipson \& Golder 1893-4).

## Discussion

The pottery found in Pit 1 confirms trends in the first half of the seventeenth century noted at 25 Bridge Street but also show developments and changes in the types and uses of pottery in city centre households.

Blackwares form the largest ware type in the pit using any of the quantifiable measures and just under 29\% using rim EVEs. Yellow wares provide 23\% by rim EVEs whilst tin-glazed wares, Midland Purple-type ware, redwares and unglazed earthenware make up $10-11 \%$ of the assemblage by rim EVEs. In comparison with group 430/850 at 25 Bridge Street, where the quantity of blackwares and yellow wares is similar the proportion of yellow wares is slightly less, possibly due to the increased number of dishes provided by tin-glazed wares and slipwares which were poorly represented in 430/850 at 25 Bridge Street.

Some of the tin-glazed ware may be imported from the Low Countries but other Continental imports form less than $1 \%$ of the assemblage. This is in marked contrast to assemblages of the sixteenth and early seventeenth century excavated at 25 Bridge Street where imports form $20 \%$ or more of the assemblage using rim EVEs (Edwards 2008, 217) but closer to pit 430/850 at the same site where Continental imports represent 0\% of EVEs and only 2.5\% by sherd count.

A direct comparison with the Beeston Castle group is perhaps not totally appropriate as the castle was clearly a functioning military site at this time and 10 Commonhall Street represents an urban and potentially domestic assemblage. However both have a similar ranges of wares with black wares and storage vessels dominating, as in the early periods at 25 Bridge Street but with yellow wares reduced and Midland Purple wares playing a substantial role and dishes, particularly slipwares, becoming more prominent. Although different methods of quantification were employed in that study there is a notably smaller number of slipwares at Commonhall Street but perhaps the tin-glazed wares have been chosen in preference. Whilst Continental imports are better represented at Beeston Castle period 7 , forming $5 \%$ of the assemblage, that group has a similar bias towards Rhenish stonewares as the Commonhall Street group and also includes Martincamp flasks. Perhaps stoneware jugs are better represented at Beeston Castle because of a higher level of drinking vessels at that site?

There is a greater emphasis on tin-glazed wares at 10 Commonhall St which increases when the tin-glazed ware tiles are taken into account, this may be significant in relation to the occupants and their contacts but the origin of the tin-glazed wares needs to be ascertained and this may be possible through scientific analysis (see Hughes in Tyler et al 2008) but beyond the timescale of this project.

Jars form about half of the assemblage and are represented in blackwares, yellow wares, Midland Purple-type wares, unglazed wares and tin-glazed wares. There is a wide variety in size and form of jar. Blackwares and Midland Purple-type wares provide the larger vessels and yellow wares the medium and small vessels. Both the yellow wares and tin-glazed wares contain small jars often referred to as drug jars and ointment pots but which potentially were used for storing any substance that was only required in small quantities. Amongst the unglazed ware is the unusual chamber-pot shaped vessel with a perforated base.

In contrast to the earlier seventeenth century groups from 25 Bridge Street chamber pots ( $12 \%$ ) and dishes ( $9.8 \%$ ) form the next largest groups of vessels using rim EVEs although if base EVEs are used it is drinking vessels (15.3\%). Drinking vessels only account for $3.5 \%$ of the assemblage using rim EVES as the measure of quantification but this is largely due to the better representation of these vessels by bases. The funnel or tube-shaped objects comprise just over 6\% of the assemblage. The other minor vessels are a candlestick, bowl, jug, lid, possible pipkin or tripod footed jar and a flask.

The majority of the dishes are tin-glazed wares, slipwares, redwares with small number of yellow wares, Midland Purple ware and imported wares including North Italian marbled slipwares. Whilst some of the tin-glazed ware and slipware dishes have surface decoration some in these wares are plain suggesting that they have a functional as well as decorative use.

Thus on comparison with 25 Bridge Street the importance of blackwares and yellow wares in supplying general ceramic needs is seen to be continuing at 10 Commonhall Street to the middle of the seventeenth century but changes can be detected. Yellow wares whilst still important are slightly reduced in number possibly due to the greater variety of wares present, notably Midland Purple-type wares, tin-glazed wares and unglazed wares. It is possible this variety may be due to factors of function or status as much as chronology but a similar variety can also be seen at Beeston Castle. Parallel with a wider variety of potentially local and English wares is a reduction in the quantity of Continental imports which at 25 Bridge Street is seen to continue throughout the seventeenth century into the early eighteenth century. Along with a wider variety of wares are an increased variety of vessels forms, most notably dishes chamber-pots and very small storage jars indicating a greater quantity and wider use of pottery.

Determining the status of a household from its pottery is difficult, as glass and metal vessels would have played an important role in better-off households yet metal vessels rarely survive, largely due to their capacity for recycling. The small quantity of glass is notable yet the pieces present are of good quality. Most of the pottery is fairly utilitarian but perhaps the quantity and variety may indicate a household of some wealth. In addition the presence of such a relatively large group of tin-glazed wares, including a bottle which would have been used for wine or similar drink, does make the assemblage stand out; tin-glazed wares were only available from London or the Low Countries at this time and the increasing number of potteries in London making the ware are testament to their fashionable status. The tinglazed ware tiles are perhaps a deciding factor in the status of the assemblage. Such tiles are rare in Chester and the reference to Sir William Brereton buying up sets of tiles in Amsterdam and the presence of tiles of the same star design at Basing House (Lipski 1970, 86-87), home of the Marquess of Winchester Sir John Paulet are clear indicators of their desirability amongst the wealthy. Thus although the 10 Commonhall Street assemblage may not have been rubbish from a household of a knight of the realm it was most probably from a household of with fashionable aspirations and most likely the means to acquire them.

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## REPORT 3. CLAY TOBACCO PIPE

# CLAY TOBACCO PIPES FROM EXCAVATIONS AT 10 COMMONHALL STREET, CHESTER, 2007 

Dr D A Higgins
11 July 2008

## INTRODUCTION

This report deals with the clay tobacco pipes recovered by L-P Archaeology from excavations at 10 Commonhall Street, Chester, which were carried out during 2007. The site code used for this work is CHE/10 CMS 07. The report also considers the pipes previously recovered from the same site during an evaluation by Earthworks Archaeology (Site Code E900; Evaluation Report dated June 2006). The pipes from both phases of work were examined and this report prepared between May and July 2008.

## MATERIAL RECOVERED

A total of 151 fragments of clay tobacco pipe were recovered from the two phases of excavation, comprising 68 bowl fragments, 77 stem fragments and 6 mouthpieces. This total is made up of 19 fragments of pipe recovered during the evaluation by Earthworks Archaeology ( 7 bowls, 10 stems and 2 mouthpieces) and 132 fragments recovered by L-P Archaeology during the 2007 excavations ( 61 bowls, 67 stems and 4 mouthpieces). The 19 fragments found by Earthworks Archaeology were recovered from four different contexts that were further excavated in 2007. For clarity these fragments have been enumerated with, and are discussed under, the context numbers allocated in 2007. The 19 fragments can, however, be identified in the detailed archive catalogue, where they have been cross-referenced with their original Earthworks Archaeology context number (which has been prefixed with an 'E' to avoid confusion between the two numbering sequences). The four Earthworks Archaeology contexts that produced pipes are E18, E20, E22 and E23, which are, respectively, Contexts $68,22,23$ and 25 in this report.

The assemblage as a whole includes four stamped maker's marks, one bowl with moulded decoration and one stem that has had a dished cut made in it after firing. The pipe fragments from the site range from the early seventeenth century through to the late nineteenth or early twentieth century in date, although the bulk of the finds date from the early to midseventeenth century. The pipes were recovered from a total of ten different contexts (plus one unstratified group). Most of the groups were only small, comprising five fragments or less, with the notable exception of Contexts 22,23 and 25 , which contained 46,51 and 24 fragments of pipe respectively. These fragments, together with a further eight from Contexts 49 and 26 , all came from various fills within a single feature, Pit 1. In total, this feature produced 129 fragments of pipe, or just over $85 \%$ of the pipes from the site as a whole. The contents of this pit form a coherent early- to mid-seventeenth century group, an analysis of which forms the main subject of this report.

The later contexts contained smaller and more mixed groups that are not worth detailed study in themselves although they contain some interesting individual pieces, which are described below. All of the fragments from this site have been examined and details of each logged
onto an Excel table, a copy of which can be found in the site archive. To facilitate cross referencing the artefacts with the site archive, a running sequence of letters (A, B, C, etc) has been allocated to the bowl fragments in each context group and is given in this report where individual pieces are referred to. These reference letters have also been pencilled onto the bowls and can be used to cross-refer the individual fragment to the digital record. The recording system is based on that developed at the University of Liverpool (Higgins \& Davey 1994). A context summary has also been prepared, a copy of which is included as Table 1 in this report.

## THE PIPES IN RELATION TO THE SITE

Clay tobacco pipes provide one of the most accurate and sensitive means of dating PostMedieval deposits, particularly if they are present in some numbers. Unfortunately most of the pipe groups recovered from this site are rather small and so the reliability of the dating evidence they offer is not as great as if larger assemblages had been present. Despite this, the pipe fragments still offer a useful guide as to the date and nature of the excavated deposits. A summary of the pipe evidence from the site is presented in Table 1 below.

| Cxt | B | S | M | Tot | Range | Deposit | Mark | Dec, etc | Figs | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14 | 4 | 1 |  | 5 | $\begin{aligned} & \hline 1610- \\ & 1930 \end{aligned}$ | $\begin{aligned} & \hline 1850- \\ & 1930 \end{aligned}$ | W. SOUTHORN \& Col BROSLY 7 SALOP x 1 |  | $\begin{aligned} & \hline 27, \\ & 27 \end{aligned}$ | Mixed group that includes some early C17th fragments but also later pieces, including an unusual Broseley pipe in a Dutch style with a stem stamp reading 'W.SOUTHORN \& Co / BROSLY 7 SALOP', which dates from c1850-1930. |
| 22 | 12 | 33 | 1 | 46 | $\begin{aligned} & \hline 1610- \\ & 1740 \end{aligned}$ | $\begin{aligned} & 1630- \\ & 1650 \end{aligned}$ |  |  | $\begin{gathered} \hline 5,8, \\ 10, \\ 12 \end{gathered}$ | All of the bowls date from c1610-50 and, although the stems have been given a less tight date range, they are all likely to be contemporary with the bowls. Group forms part of a pit fill of c1630-50. |
| 23 | 28 | 21 | 2 | 51 | $\begin{aligned} & \hline 1610- \\ & 1680 \end{aligned}$ | $\begin{aligned} & \hline 1630- \\ & 1650 \end{aligned}$ | SE x 1 ; wheel x 1 | Cut stem | $\begin{gathered} 3,4, \\ 6,9, \\ 11, \\ 13, \\ 15, \\ 16, \\ 17, \\ 20, \\ 21, \\ 30 \\ \hline \end{gathered}$ | Very consistent group of early C17th bowls and all the stems are likely to be contemporary. Quite a number of these fragments have been burnt. Group forms part of a pit fill of c1630-50. |
| 25 | 12 | 10 | 2 | 24 | $\begin{aligned} & \hline 1610- \\ & 1680 \end{aligned}$ | $\begin{aligned} & \hline 1630- \\ & 1650 \end{aligned}$ | BC $\times 1$ |  | $\begin{gathered} \hline 2,7, \\ 14, \\ 18 \end{gathered}$ | Ten of the bowls are early forms, usually dated to c1610-40 but two (F \& G) are of types that would normally be placed a little later; c1630-50. Group forms part of a pit fill of $\mathrm{c} 1630-50$. |
| 26 | 1 | 2 |  | 3 | $\begin{aligned} & \hline 1610- \\ & 1680 \end{aligned}$ | $\begin{aligned} & 1630- \\ & 1650 \end{aligned}$ |  |  | 1 | Group forms part of a pit fill of c1630-50. |
| 42 | 2 |  |  | 2 | $\begin{aligned} & \hline 1610- \\ & 1720 \end{aligned}$ | $\begin{aligned} & \hline 1690- \\ & 1720 \end{aligned}$ |  |  | 25 | Two bowls, one of 1610-1640 and the other 1690-1720. Either the position of this context within the site matrix is wrong or the later bowl is intrusive. |
| 49 | 1 | 4 |  | 5 | $\begin{aligned} & \hline 1610- \\ & 1740 \end{aligned}$ | $\begin{aligned} & \hline 1640- \\ & 1700 \end{aligned}$ |  |  | 19 | Fresh looking bowl of c1640-60 provides a likely date for deposition althouah the associated stems are |


|  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Table 1 - Context Summery showing the numbers of bowl (B), stem ( $S$ ) and mouthpiece fragments ( $M$ ) from each context, the total number of fragments recovered (Tot) and then two date ranges. The first gives the overall date range of pipe fragments recovered and the second the likely deposition date for that particular group, based on the latest closely datable pipe fragments present. Marked or decorated pipes are noted in their respective columns as well as the figure numbers of illustrated examples.

The latest group recovered, stratigraphically, was Context 14, a late twentieth-century spread that contained mixed pipes dating from the early seventeenth century onwards. The next two pipe groups came from contexts associated with some structures on the site, which were provisionally identified as being Victorian. The first was a single stem fragment from Context 62, which is of eighteenth- or, possibly, nineteenth-century date, although the former is perhaps more likely. The second group came from Context 63, which produced two bowls and a mouthpiece. The bowls are both of late eighteenth-century or early nineteenth-century date (and include an interesting bowl with Masonic decoration) but the mouthpiece comes from a late style of short-stemmed or 'cutty' pipe dating from c1850 or later.

The bulk of the pipes then came from a series of fills associated with Pit 1 (Contexts 22, 23, $2,26 \& 49$ ). The uppermost of these (Context 49) produced one bowl and four stems. These stems are hard to date accurately but they are of types that would fit with a seventeenthcentury date, although some of these styles continued in production into the early eighteenth century. The bowl itself dates from c1640-60 (Fig 19), and it appears to be a little later in style than the majority of the pipes from the underlying fills. This suggests either that the pit was not finally sealed until at least the middle of the seventeenth century or that some later material has slumped into the top of it as the earlier fills settled. The underlying pit fills contain a consistent group of earlier looking material, including a further 53 bowls, all of which would fit within a date range of $c 1610-50$ and with $c 1630-50$ being the most likely period of deposition (see detailed description and analysis below). A cross-join was found between contexts 22 and 23, suggesting that at least these two fills may have been deposited at much the same time. Several of the pipe fragments, particularly in contexts 22 and 23, appear to have been burnt. This may have been from their having been discarded in a domestic hearth or it could represent a more widespread fire on or near the site.

There were only two stratigraphically earlier deposits of pipes. The first came from Pit 2 , where Context 42 produced just two bowls. One of these typologically dates from $c 1610-40$ but was made in the same mould as examples found in Pit 1 (filled $c 1630-50$ ), suggesting that the two features are very close in date. The other bowl, however, dates from $c 1690-1720$ and must be intrusive in this context if the site matrix is correct. The final group, comprising just three stem fragments, was recovered from Context 68, a make up level that is stratigraphically earlier than both of the pits. The stems cannot be dated particularly closely but two are certainly of seventeenth century types while the other is of seventeenth or eighteenth century style. If anything, it looks more likely to be eighteenth-century in date. If this is the case, either the stratigraphy is incorrect or it is intrusive in this deposit.

## THE PIPES THEMSELVES

Pit 1 As noted above, the bulk of the finds from this site were recovered from Pit 1, which produced a total of 129 fragments of pipe ( 54 bowls, 70 stems and 5 mouthpieces) from five different fills ( $22,23,25,26 \& 49$ ). This is probably the best early- to mid-seventeenth century domestic group of pipes to have been recovered from Chester for several decades and provides an important opportunity to reassess the pipes that were being produced and consumed in the city at this period. Unfortunately there appears to have been a collecting bias in favour of larger pipe fragments and bowls, since stem fragments and, in particular, mouthpieces, were greatly underrepresented in the sample available for study. This precluded the possibility of reassembling complete pipes, which would have provided information of national significance. The sieving of good quality pit fills such as this is essential if significant advances in our understanding of the artefactual evidence are to be made. Despite the incomplete recovery of the pipe fragments, this is still a very important pit group, which will be discussed in detail first, followed by notes on the other pipe finds from the site.

Dating The first point to establish is the likely date for the deposition for this group. The range of pipe bowls from Pit 1 (Figs 1-21) form a very consistent looking group that would appear to represent deposition over a relatively short period of time. Unfortunately, some of the early Chester bowl forms appear to have been produced over quite a long period of time, making it hard to pin down exactly when this deposition occurred. The uppermost fill of the pit (49) produced four stems and a single pipe bowl (Fig 19), which is of a form that would normally be dated to $c 1640-60$. This bowl appears slightly later in style than almost all the other 53 examples from the pit and presumably represents either the final levelling of the pit or a slightly later example that has slumped into it as the fill settled. The remainder of the bowls would all fit within a date range of c1610-50 although the lack of very early seventeenth-century characteristics, such as the heel being trimmed flush with the stem, might suggest that this group fits better within a $c 1620-50$ range.

Although the Chester pipes are of different regional types, the Kitto Institute group from Plymouth (Higgins 1992), dating from $c 1625-30$, provides a close match in terms of bowl size for this group. On the other hand, the bowls are also comparable with the very large Civil War assemblage from Pontefract Castle in Yorkshire (Davey \& White 2002; White 2004) and with the pre-1646 Civil War pipes from Beeston Castle (Davey 1993, Fig 117.212), which lies half way between Chester and Nantwich, about 9 miles to the SE of Chester itself. These parallels show that the Commonhall Street pit group could date to anywhere between the 1620 s and the 1640 s.

The other classes of finds from the pit provide dating evidence that can be used to help refine the likely date of deposition. The glass from the pit includes parts of two English façon Venise glasses likely to have been made at Sir Robert Mansell's furnace at Crutched Friars in London during the 1620 s -1640s. Other glass fragments are typical of the first half of the seventeenth century, which would support the final deposition date of no later than around 1650 that is suggested by the pipes. Similarly, the pottery includes a group of tin-glazed sherds of various forms dating from the second and third quarters of the seventeenth century, with a mid-century range covering many of the types present. The glass and pipes would tend to push the dating towards the earlier end of this range, but there is no great discrepancy between the various classes of evidence.

Taken together, the artefactual evidence would suggest a date of deposition of around 163050 for the contents of Pit 1. It is even possible that the disruption caused by the Civil War during the early 1640s was the catalyst that caused rubbish to be discarded in urban pits rather than being carted away as 'night soil'. Either way, a deposition date of somewhere between 1630 and 1650 provides useful framework within which to consider this group.

The Bowl Forms The most obvious characteristic of the pipe assemblage to consider is the bowl forms. Given that this is a large and very consistent looking group without any obviously intrusive or residual material, this assemblage provides an ideal opportunity to consider not only the range of bowl forms and the number of mould types that is represented, but also the finishing techniques employed and the quality of pipes themselves. It was hoped that detailed comparison of small flaws in the moulds used to produce the pipes would allow the individual mould types to be positively identified. Unfortunately, the moulds were generally so smooth and the pipes so neatly finished that this was only possible in a small number of instances. The pipe forms were, therefore, compared in detail, looking at not only their profiles, but also their symmetry, the size and shape of their heels and their overall form, proportions and curves to try and place then into groups that were likely to represent individual mould types.

By using this detailed three-dimensional comparison in conjunction with any mould flaws that were evident it was possible to attribute 51 of the 54 bowl fragments from Pit 1 into 21 individual groups that were likely to have been made in the same mould. These probable mould types are shown as Figs 1-21, so that the figure number is the same as the mould group number. Each of the 21 mould types from Pit 1 are described below (Figs 1-21). The characteristics used to define each type are described, together with general observations as to the nature or character of the pipes attributed to that mould type. As noted above, each group is intended define, so far as is possible, a group of pipes made in an individual mould (or moulds that are so similar that they cannot be distinguished). The 'type example' used to define that type is described in detail, followed by a list of all the other examples that have been attributed to the same mould type. All of these forms are likely to date from the filling of the pit, $c 1630-50$.

It is significant that so many different mould types are represented in this one single group. Some of the types, for example 7, 10 and 11, are represented by multiple examples, perhaps suggesting that these were batches of pipes, purchased in bulk to supply a single household. Other types only occurred as isolated examples, suggesting that they had been obtained, or found their way into the pit, from a variety of different sources. The wide range of individual mould types represented suggests a well-established industry while the occurrence of different marks shows that a number of different makers were competing in the market. A similar
situation has been noted amongst a mid-seventeenth century group of pipes from a single site in Hemel Hempstead, Hertfordshire, where large numbers of mould types were represented (Higgins 1985). These two examples from very different parts of the country show that many more pipemakers were probably competing for a share of the mid-seventeenth century market than the lists of documented makers would suggest.

1 Just one example of this mould type was found. It is the smallest bowl form recovered from the pit and was found in its lowest fill, context 26. Although this form would usually be dated to $c 1610-40$, it is not incompatible with the suggested date of $c 1630-50$ for the pit, especially since it occurs in the lowest fill. The bowl has a good, barrel-shaped form in London style but the rim is not milled, which is a Chester charcateristic and suggests it was produced in the city. The pipe is neatly finished, it is made of a fine fabric and has a stem bore of $7 / 64$ ". The rim is bottered but not milled and the surface has a good burnish.

2 Two examples of this type were recovered from context 25 (A \& B). Both are made of a fine fabric and with stem bores of $8 / 64$ ". Their rims are bottered and fully milled and both are burnished on both bowl and stem; (A) with a fine burnish and (B) with a good burnish. The illustrated example is $25(\mathrm{~A})$.

3 Three examples of this type, which is characterised by quite a marked constriction just below the rim, were recovered. Although these are all generally very similar, slight differences in the exact form and finish make them one of the least convincing mould groups and it is possible that more than one mould is represented. The illustrated example is from context 23 (I) and it is made of a fine fabric with a stem bore of $8 / 64$ ". The rim is bottered but not milled and the surface has a fine burnish. The other examples are from $23(\mathrm{H})$ and 25 (I). Both are made of fine fabrics and bottered but not milled and they have stem bores of $7 / 64$ " and $8 / 64$ " respectively. The main finishing difference is that neither of these two is burnished, resulting in a rather poorer quality appearance.

4 Two examples of this type were recovered, characterised by a very short bowl and lack of curve where the bowl profile away from the smoker runs into the heel. The illustrated example is from context $23(\mathrm{R})$ and it is made of a fine fabric with a stem bore of $7 / 64$ ". The rim is bottered but not milled and the surface is not burnished. The heel has been accidentally dented on the side away from the smoker while the clay was still soft, causing a defect. One other example from 23 ( S ) but this is very fragmentary with only a part of the bowl surviving. The surviving piece is short and with a similar surviving profile and appears most similar to this form although it cannot be conclusively matched.

5 Two examples of this type were recovered. The bowl form is almost identical to Type 6, and is only distinguished by the heel merging into the body of the bowl rather than having a sharp angle change, which creates a sharply defined line. These two examples also lack the mould flaw 'dot' on the left hand side, which is present in Types 6 and 7. All three of these moulds (Types 5-7) are, however, closely related and may have been cast from a common foundry pattern. The illustrated example is from context $22(\mathrm{E})$ and it is made of a fine fabric with a stem bore of $8 / 64 "$. The rim is bottered but not milled and the surface is not burnished. Other example is from $23(\mathrm{G})$ and is identical in all respects except that the fabric includes some fine gritty inclusions, suggesting that it was made from a local rather than an imported clay source.

6 Three examples of this type were identified, characterised by a sharp angle change between
the heel and the body of the bowl, which creates a sharply defined line, and by the relatively large, rounded, heel plan. All three examples also show traces of a clearly defined relief 'dot', about 2 mm in diameter, which occurs just below the rim of the pipe in the centre of the left hand side. This unintentional mould flaw is clearly visible on the illustrated example, 23 (F), but has been partially smoothed on the other two examples by rim finishing. The illustrated example made of a fine fabric with a stem bore of $7 / 64$ ". The rim is bottered but not milled and the surface is not burnished. The other examples are 23 (AA) and 23 (AB), which have identical characteristics except that 23 (AA) has a slightly larger stem bore of 8/64".

7 This is one of the most frequent mould types recovered from the pit, with seven or eight different examples represented. These are very similar in form to Types 5 and 6 , but with a smaller heel plan, that tends to be rather oval in shape (although the finishing does seem to cause some variation in its exact appearance). The heel is sharply divided from the body of the bowl, as in Type 6, and there appears to be a similar mould flaw 'dot' on the left hand side near the rim. The close similarity of these types may suggest that either one mould has been altered or that two moulds case from a common flawed pattern are represented. It is documented that sometimes pipemakers filed down the meeting faces of a mould to sharpen the edges again, which made trimming the pipes easier. This would have had the effect of narrowing the heel plan and making it more oval. If this is the case, then these pipes may represent production from the same mould over a period of time. The illustrated example is from context 25 (D) and it is made of a fine fabric with a stem bore of $7 / 64$ ". The rim is bottered. Nearly half the rim is chipped away but it was probably not milled. The surface is not burnished. The other six examples are 23 (A-E) and $25(\mathrm{H})$. Only $25(\mathrm{H})$ is a doubtful match in that it appears to have a very slightly shorter and more slender bowl although it still has a small, sharply defined heel. There are also two unstratified examples (U/S (A \& B)). All of these other examples share the same production and finishing characteristics apart 23 (A), $25(\mathrm{H})$ and U/S (B) which all have stem bores of $8 / 64$ ".

8 One example from context 22 (I), which is made of a fine fabric with a stem bore of 8/64". The rim is bottered but not milled and the surface is not burnished. This form is characterised by a relatively large, round, heel, with a smooth transition from heel to bowl. Otherwise similar to Type 9 .

9 Two examples that are similar to Type 8 but with smaller round heels. The illustrated example is from context $23(\mathrm{~K})$ and it is made of a fine fabric with a stem bore of $8 / 64$ ". The rim is bottered but not milled and the surface is not burnished. Other examples is from 23 (J) and identical apart from the stem bore, which measures 7/64".

10 Six examples, all very neatly made from a smooth, well proportioned mould of London style (except that the rims are finished in typical Chester fashion, showing that they were produced locally). The illustrated example is from context $22(\mathrm{H})$ and it is made of a fine fabric with a stem bore of $8 / 64$ ". The rim is bottered but not milled and the surface is not burnished. The other examples are 22 (J-L), 25 (C) and 25 (J). All have identical characteristics, except $22(\mathrm{~L})$, which has a stem bore of $7 / 64^{\prime \prime}$.

11 This is the most common mould type from the site, with ten examples from the pit and a further two from elsewhere on the site. These bowls have a slightly more slender feel to the bowl, although it still has a characteristically globular body and constriction below the rim. There is a distinctive mould flaw in the form of a relief 'dot', about 1 mm in diameter, which
is visible just above the heel on the right hand side of the bowl in most examples. These pipes tend to have a slightly poorer quality feel than many of the other types, with comparatively rough surfaces and more than the usual number of moulding and trimming defects. The illustrated example is from context $23(\mathrm{~L})$ and it is made of a fine fabric with a stem bore of $9 / 64$ ". The rim is bottered but not milled and the surface is not burnished. The other nine examples from the pit are 22 (A-D) and 23 (M-Q). There are also two examples from elsewhere on the site - $14(\mathrm{~A})$ and $42(\mathrm{~A})$. One example, $23(\mathrm{~N})$, has a poorly burnished surface but all the others are plain. The other moulding and finishing characteristics are the same as the type example apart from the stem bore, with is $8 / 64$ " in all of the examples except for 22 (D), which is 7/64", and 14 (A), which is 6/64".

12 One example from context $22(\mathrm{~F})$, which is made of a fine fabric with a stem bore of $7 / 64$ ". The rim is bottered but not milled and the surface is not burnished.

13 One example from context $23(\mathrm{~T})$, which is made of a fine fabric with a stem bore of $9 / 64$ ". The rim is bottered and fully milled and the surface is not burnished. There is a deeply impressed band with very faint milling divisions all around the rim.

14 One example from context $25(\mathrm{~F})$, which is made of a medium fabric with a stem bore of $7 / 64$ ". The rim is bottered but not milled and the surface is not burnished. This is a rather larger bowl form and with poorer, 'lumpy' surface finish than the rest of this group and represents rather a poor quality pipe.

15 Just one example of this very neat and well finished bowl form was found - context 23 (U). It is made of a fine fabric with a stem bore of $9 / 64$ ". The rim is bottered and fully milled and the surface has a fine burnish on both bowl and stem. This is a very good quality product.

16 A single example of this mould type was recovered from context $23(\mathrm{~V})$. It is made of a coarse fabric with a stem bore of $8 / 64$ ". The rim is bottered and about one quarter of rim chipped but it was almost certainly not milled. The surface is not burnished. There is a maker's stamp with the initials SE on the heel. This mark is common in Chester from c163050 and must represent a local maker although the only possible candidate currently known is a Samuel Edwards, who died in 1673 (Rutter \& Davey 1980, 114), which seems a little late for these pipes.

17 A single example of this form was recovered from context 23 (W). It is made of a fine fabric with a stem bore of $7 / 64$ ". The rim is bottered and fully milled and the surface has a good burnish. The broken section shows one very large inclusion ( 3 mm ) and one smaller inclusion in what is otherwise a fine fabric. These may simply be accidental inclusions, not typical of the fabric generally. The pipe has a good burnish on both the bowl and stem and it has a stamped wheel mark on the base (National Catalogue Die No 531). This particular die has been recorded from a number of other sites in Chester and so must have been used locally.

18 A single example from context $25(\mathrm{G})$, which is made of a fine fabric with a stem bore of $9 / 64$ ". The rim is bottered and fully milled and the surface has a fine burnish. The stem is a little uneven in places, but carefully finished all over with a fine burnish. There is a circular stamp on the heel containing the maker's initials BC. There are quite a number of different BC dies dating from c1620-40 already known from Chester (Rutter and Davey 1980, 109),
where their frequency suggests local production. This particular die (National Catalogue Die No 2141) has not been previously recorded and is a new type that can be added to the list. The maker has not yet been identified.

19 Just one example of this form was recovered and that came from context 49 (A), the latest fill of the pit. This is a neat and well finished pipe made of a fine fabric with a stem bore of $8 / 64$ ". The rim is bottered and fully milled and the surface has a good burnish.

20 Two examples of this spur form were recovered. Although they share the same profile, the feel and finish of these pieces is very different and it is quite possible that the do, in fact, represent two different moulds. Furthermore, there are slight differences around the heel that may indicate distinct moulds rather than different finishing. The illustrated example is from context $23(\mathrm{Y})$ and it is made of a fine fabric with a stem bore of $9 / 64$ ". The rim is bottered and fully milled and the surface has a good burnish on both the bowl and stem. The other example is from $25(\mathrm{~L})$ and it is made of a medium coarse fabric. This example is not milled or burnished and it has a stem bore of $7 / 64$ ".

21 Only one example of this form was recovered from the pit. This example is of a rather different style to the other bowls and it could have been made in South Lancashire as opposed to Chester, although the style is not quite distinctive enough to be sure. It was recovered from context $23(\mathrm{Z})$ and it is made of a fabric with fine gritty inclusions and a stem bore of 7/64". The rim is bottered and fully milled but the surface is not burnished.

The bowl forms from Pit 1 provide a sample of the styles that were being used in Chester at this period. Although many of the forms could be mistaken for London types, which tended to set the national fashions during the opening decades of the seventeenth century, there are a number of distinctively Chester features that are already apparent. The most notable of these is the occurrence of a constriction just below the bowl rim and then a very globular body to the centre of the bowl itself as, for example, in Figs 3-11. Comparison with other regional groups of this date, such as the Kitto Institute, Plymouth, and Pontefract Castle assemblages mentioned above, shows clear differences in the range and proportions of the forms present represented making it clear that regional diversity in bowl styles was already apparent by the time of the Civil War.

Manufacturing and Finishing Techniques Quite apart from the bowl forms, the regional identity of these pipes is reinforced by the manufacturing and finishing techniques that were employed to produce them. The most obvious of these is the low incidence of milling around the bowl rims. In most other parts of the country it was standard practice to use rim milling for almost all of the seventeenth century. In Chester, milling was much less frequently used on pipes during the first half of the seventeenth century, as can be seen from this pit group. In total there were 50 bowls in the pit where the rim finish could be determined. Of these, only 9 were milled ( $18 \%$ ), a very low percentage for this period nationally. Furthermore, this milling was not applied randomly, but it appears to have been associated with particular mould types. The three most common mould types in the pit (Figs 7, 10 and 11) were represented by 7 or 8,6 and 10 examples respectively, making a total of 23 or 24 bowls in total - roughly half of all those in the pit. Yet none of these examples was milled which, if the milling were randomly applied, four or five of them should have been. On the other hand, there were two examples of mould type 2 (Fig 2), both of which were milled. The other milled examples all occurred as single examples but the pattern indicated appears to be that the milling was selectively applied to specific mould types. This could have been either the
result of specific workshop practices, where one manufacturer chose to mill his pipes while another did not, or as part of the style or finish for a particular type of pipe, for example, a cheaper variety or one with some other characteristic, such as a particular stem length.

The relationship between milling and mould types becomes even more complex when the use of burnishing and makers' marks is also considered. There were only three marked bowls in the pit ( $6 \%$ of the pipes) but two of these had milled rims. Although the sample is too small to be statistically valid, this raises the suggestion that milling was more frequently used on the marked pipes. Furthermore, in the pit as a whole, only 11 out of 54 bowls had burnished surfaces ( $20 \%$ ) and yet two of the three marked two examples (Figs 17 and 18) had burnished surfaces, once again suggesting a preference for better quality finishing on the marked pipes. A similar association between burnishing and milling can be observed since 7 out of the 9 milled bowls were also burnished. In short, there appears to be a clear association between milling, burnishing and marking within this pit group. These three finishing techniques not only tend to occur as an interlinked series of characteristics, but they also appear together on specific mould types, marking out better quality (and so, presumably, more expensive) products.

The application of milling and burnishing has long been recognised as a sign of quality in a pipe. The application of these finishes was an extra stage in the production process and therefore added to the cost of making a pipe. In other parts of the country, milling was almost universal on seventeenth-century pipes. The quality of the milling can also be graded to an extent by looking at the care with which it has been applied, i.e., how complete a circumference of the rim was milled. In this group all nine of the milled bowls had a complete band of milling around the rim, showing that when it was used it was carefully applied and making a stark contrast with the large number of completely unmilled examples. Similarly, burnishing can be graded according to the care with which it has been applied and the coverage that has been achieved. There were two examples with a poor burnish, five with a good burnish and three with a fine burnish in this group. Of these, four of those with a good burnish and three of those with a fine burnish were also fully milled. The two examples with a poor burnish were on pipes without milled rims. This shows that just over half of the burnished pipes also had milled rims (many more than the pit average of $18 \%$ ) and that the milled examples were also more likely to have a better quality of burnishing.

The final manufacturing characteristic to be considered is that of stem bore. Overall, the bowls from this pit had stem bores ranging in size from $6 / 64$ " to $9 / 46$ " and there were even some contemporary looking bowls from elsewhere on the site with the unusually large bore of 10/64" (e.g., Fig 23). Despite this, the majority of the bores clustered in the middle of this range. In the pit, just two of the bowls had bores of $6 / 64$ " and five had bores of $9 / 64$ ". In contrast, there were 19 with bores of $7 / 64$ " and 27 with bores of $8 / 64$ ". The average for the bowls from the pit group as a whole was $7.66 / 64$ ". Stem bores can vary slightly along the length of the pipe as a result of the manufacturing process and shrinkage during drying and firing but it is clear that the majority ( $87 \%$ ) of the pipes had bores of either $7 / 64$ " or $8 / 64$ " during this period. There did not seem to be any particular association between bore size and mould type, although the sample size is rather too small for any slight variations to be detected.

Discussion of the Pit 1 Bowls While the manufacturing and finishing characteristics of the pipes from this pit can be observed and quantified, it is equally important to consider the significance and interpretation of these findings in relation to pipes from elsewhere in the city
and beyond. In terms of milling, Davey noted an extremely low incidence ( $<1 \%$ ) amongst the Civil War pipes from Beeston Castle, where he states that only one example amongst 166 was milled (Davey 1993, 172). This percentage may be a little too low, since even his published illustrations show at least four milled examples (Davey 1993, Figs 7, 33, 36 and 43) but the general assertion is undoubtedly correct. Davey uses this low incidence of milling as supporting evidence that very few of the pipes were being obtained from Chester, where he gives figures of $36 \%$ and $39 \%$ for the numbers of milled pipes from two broadly contemporary groups found at Lower Bridge Street (1974-5) and Princess Street (1939) respectively (Davey 1993, 172). Once again, these figures appear to be slightly incorrect since the unmeasurable examples were not excluded from the calculations (Rutter \& Davey 1980, Figs 2-3 \& 5-11) so the figures should be $39 \%$ and $40 \%$ respectively.

In order to check the frequency of milling use in Chester, and to provide a larger data set for greater reliability, the detailed archive catalogue of a large new assemblage from 25 Bridge Street, Chester (Higgins, forthcoming), was examined. Rather than relying on a single context group, this site produced a large number of early pipes from several historic property plots in the city centre. A sub-sample of some 250 pipe bowls, dating from between about 1610 and 1650 was selected for use in this study. As analysis of this data showed that the majority of early Bridge Street pipes, $56 \%$, were in fact milled and that the majority of these ( $91 \%$ ) were fully milled. This generally supports the results from the earlier analysis of Lower Bridge Street and Princess Street but shows that, if anything, a rather greater proportion than previously thought was milled. Overall, these three studies have produced figures of between $39 \%$ and $56 \%$. These figures can be refined as more groups are recovered and details logged but, in broad terms, around a half of the early pipes used in Chester were milled.

The Commonhall Street pit included a respectable size sample and so the lower than average occurrence of milling ( $18 \%$ ) seems to be a reliable figure. Any argument that this represents a 'lower status' household using cheaper quality pipes is immediately undermined by the presence of fine glassware and decorative tin-glazed ceramics in the pit. An alternative scenario is that this pit dates from the 1640s and that, as a result of disruptions in the labour force caused by the upheavals of the Civil War, only poorer quality pipes were available. A marked drop in the quality of pipes during the Civil War period has been noted elsewhere, for example in Yorkshire (White 2004, 79), and this is certainly a factor that should be considered when comparing the evidence from Beeston Castle. The Beeston pipes would have derived almost exclusively from ordinary soldiers garrisoning the castle during the 1640s and so the very low incidence of milling may there have been a product of that particular social group and moment in time rather than a reflection of the origin of the pipes. Detailed analysis of larger and more closely datable groups is needed to test and refine this hypothesis but it is possible that the Commonhall Street pit dates from the 1640s, when there was a marked reduction in the quality of the available pipes, even in a wealthy assemblage such as this.

The evidence from the burnished pipes also supports this hypothesis. The general level of burnishing in Chester as represented by the c1610-50 pipes from 25 Bridge Street was 35\%, which is much higher than either the Commonhall Street pit (20\%) or Civil War pipes from Beeston (13\%; Davey 1993, Fiche 2:G13). Similarly the number of marked pipes in the 25 Bridge Street group was $16 \%$ as opposed to only $6 \%$ at Commonhall Street. All the indicators are that the Commonhall Street pit represents a lower than average quality assemblage for Chester, despite the presence of good quality table wares. In its regional
context the Commonhall Street group is still of a 'better quality' than the Beeston assemblage, although that may well represent the lowest ebb of pipes available to the common soldiers during the war itself.

Reworked Stem Before moving on to consider the other pipes from the site, there is one piece of reworked stem from the pit that must be mentioned (Fig 30). This was recovered from Context 23 and is made of a fine fabric with a stem bore of $8 / 64$ ". This has had a dished cut or scrape made in one side of it after firing, which just exposes part of the stem bore. This cut seems to be slightly to one side of the mould line, towards the base of the stem. It was probably made by scraping the stem with a sharp implement, such as a knife blade. This may have been idle doodling, particularly as the alignment of the cut in relation to the pipe is very lop-sided, although ocassionally pipes were apparently turned into simple whistles or flutes by cutting finger holes in the stem, which this could have been. A similar example has been recovered from 25 Bridge Street in Chester (Higgins, forthcoming, Fig 179).

The Other Pipes from the Site There were no particularly large or consistent context groups other than the pit group discussed above. The rest of the site did, however, produce some individual pieces that are of interest in their own right. A further eight bowls of early seventeenth-century type were recovered from other contexts on the site. Four of these matched the mould types identified within the Pit 1 assemblage (two examples of type 7 (U/S A \& B) and two of type 11 ( 14 A and 42 A )), one was too fragmentary to allow identification (14 B) and three others belonged to different mould types. These three have been added to the sequence as mid-seventeenth century mould types 22-24 (Figs 22-24 respectively). Finally, the site also produced six later pipe bowls, representing five different mould types, which have been catalogued as mould types 25-29 (Figs 25-29). All of these types are described below.

22 One example of $c 1620-50$, which is characterised by a bulbous body to the bowl and sharply defined angle change with the spur. This example is unstratified (E) and it is made of a fine fabric with a stem bore of $7 / 64$ ". The rim is bottered but not milled and the surface is not burnished.

23 One unstratified example (D) dating from $c 1610-50$, which is made of a fine fabric and with a particularly large stem bore of $10 / 64$ ". The rim is bottered and fully milled and the surface is not burnished. This is an unusual spur form.

24 One unstratified example (C) dating from $c 1630-50$, which is made of a fine fabric with a stem bore of $8 / 64$ ". The rim is bottered but the surface is not burnished. Only one quarter of the rim survives, none of which is milled. This form has a particularly large heel.

25 One example dating from $c 1690-1720$ from context 42 (B), made of a fine fabric with a stem bore of $6 / 64$ ". The rim is cut but not milled and the surface is not burnished.

26 Two examples dating from $c 1780-1830$. The illustrated example is from context 63 (B) and it is made of a fine fabric with a stem bore of $6 / 64$ ". The rim is cut and wiped but not milled and the surface is not burnished. This was made in the same mould as an unstratified example ( F ), which also has a cut and wiped rim, but with a smaller stem bore of $5 / 64$ ". Both of the examples are smoothed on the base of the spur but niether is trimmed.

27 One example dating from $c 1800-1860$ from context 14 (C), which is made of a fine fabric with a stem bore of $5 / 64$ ". The rim is cut but not milled and the surface is not burnished. Plain bowl with rather a streaky mould surface. Although the stem seams are trimmed, the bowl seams are not. Rather a basic product with crude scratches on the spur sides.

28 One example of $c 1770-1810$ from context 63 (A), which is made of a fine fabric with a stem bore of $6 / 64$ ". The rim is cut but not milled and the surface is not burnished. The bowl has Masonic emblems decorating both sides of the bowl. Althoguh Masonic designs were very popular in the Liverpool / Raiford area from around 1770-1860, these bowls have not been found in any numbers in Chetser. Furthermore, this particular example is of an unusual style for the north west of England, being more typical of styles found in the north east. A complete example made by Thomas Gill of Red Hall near Wakefield and found under the floorboards of a building constructed around 1791/2 (White 2004, Fig 167). The Wakefield example has a very similar scheme of decoration on the bowl and a curved stem with a length of $18^{1} / 2^{\prime \prime}$, showing what the Commonhall Street example would originally have been like. A very similar scheme of bowl decoration was also employed by C. Windle in Leeds (White 2004, 443). Given the close similarity with Yorkshire examples, it is possible that this piece is an 'import;' from across the Pennines.

29 One example from context 14 (D), which is made of a fine fabric with a stem bore of $4 / 64$ ". The rim is cut but not milled and the surface is not burnished. The unusual bowl form has been made to copy the style of a Dutch pipe. The incuse stem stamp ('W. SOUTHORN \& Co / BROSL ${ }^{\mathrm{Y}} 7$ SALOP'; die detail shown at twice life size) shows that this pipe was made by the well known firm of William Southorn \& Co of Broseley in Shrosphire, who operated from 1823-1960. The number in the mark was used to identify the worker who had made the pipe so as to monitor quality. This firm specialised in producing long-stemmed pipes and built up an extensive trade so that their pipes are found right across the country. The stem mark is very close to the bowl (only 3 mm from the junction) which would normally be taken as representing a very short-stemmed pipe. In this instance, however, an early twentieth century pattern sheet for the firm shows this design was a long-stemmed pipe, listed as 'No 71 Short Dutch Straw - 16 Inches'. A straw was a thin-stemmed pipe, usually with a simple rounded or cut mouthpiece. This would have been a relatively expensive pattern, since both the length and thinness of the stem would have made it more difficult to produce. The pattern sheet shows that this pipe would originally have had a long, slightly curved stem. The incuse style of mark was only introduced by this firm in about 1850 and this pattern of pipe is unlikely to have been produced much into the twentieth century, suggesting a date of c1850-1930 for this piece.

Fabrics The final point to note is with regard to the fabrics from which the pipes were made. For the purposes of this report just three fabric types have been recognised, based on the size of their inclusions; fine ( F ), medium ( M ) and coarse ( C ). The fine fabrics occasionally have sparse inclusions visible in the body and these vary in nature and density, suggesting that more than one clay source is represented. In these fabrics, however, the inclusions are very small (generally less than 0.25 mm ) and are only really visible with a lens. Medium fabrics are those where some coarse inclusions are visible but these are generally less than 0.5 mm in size and, once again, they tend to be fairly sparse. Coarse fabrics, on the other hand, tend to have quite large numbers of clearly visible angular or sub-angular inclusions, which are often between 0.5 mm and 1 mm in size, and occasionally larger. Most of these inclusions (as in all the three fabrics) are white so that they do not stand out in colour
from the body of the pipe clay itself.
Although only providing a general division of the fabrics present, this system does at least allow some degree of distinction between the various types represented. Detailed recording and analysis of these fabrics would be required to determine exactly how many sources are likely to be represented and exactly where they are likely to have been obtained from. In broad terms, the majority of the pipes are made of fine grained and almost inclusion free fabrics. Clays of this type are not thought to occur locally and so these are almost certainly imported clays from the south or south-west of England. There is ample evidence for pipe clay being imported into Chester from Barnstaple and Bideford during the later seventeenth century (Rutter \& Davey, 1980, 47) and there is no reason why this trade could not have started during the early seventeenth century as pipemaking established itself in the city.

In contrast, the medium and coarse clays contain numerous gritty inclusions that are easily visible with a lens (if not to the naked eye), which result in a rather rough, granular fracture. This clay almost certainly derives from the local Coalmeasure deposits, which were exploited by potters and pipemakers in both north Wales and south Lancashire during the PostMedieval period. Pipes made of this coarse fabric are relatively rare in Chester, and only four fragments were noted from this site; two bowls and two stems, all of which came from the fills of Pit 1. One of the bowls was from 22 (G), and similar in form to Fig 7, although there is some doubt as to whether this was actually from the same mould. The other piece came from $23(\mathrm{~V})$ and is illustrated as Fig 16. This second piece is stamped SE, a common mark in Chester and presumed to be a maker working in the city. If he was working there, then this suggests that at least some of the Chester makers were bringing local clay into the city to use.

There were rather more fragments made of a medium coarse clay, which may well also have been locally obtained ( 11 fragments, comprising 6 bowl, 3 stem and 2 mouthpieces). Once again, all of these fragments came from Pit 1 and they included examples of a range of different bowl types (Figs 4, 5, 14, 20 and 21). The last example (Fig 21) is significant in that this form is of a style also made at Rainford, where these coarse clays occur naturally, and so this could be an 'import' from south Lancashire as opposed to a piece made in the city itself. In total there were 15 fragments of coarse or medium coarse pipe from the site, all from Pit 1, where they represented about $12 \%$ of pipe fragments recovered.

## SUMMARY

As well as providing dating evidence for the excavated contexts and features, the pipes also contribute to a broader understanding of production and consumption patterns within the Chester, particularly during the second quarter of the seventeenth century. The majority of the finds came from a single pit deposit, which is probably the most significant of its type to have been recovered from Chester for several decades. The potential of this group for analysis was limited by the incomplete recovery of the contents, and sieving to recover all the artefactual evidence from key groups such as this is recommended for the future.

Analysis of the pipes from the pit has shown that many different mould types were present, suggesting that a large number of different manufacturers were competing in Chester by the 1630s or 1640s. A few of these were using locally obtained clays but the majority were probably using imported from the south west of England. Finishing techniques, such as milling and burnishing, were not randomly applied but were specifically associated with particular
mould types. These techniques were often used in conjunction with one another to produce better quality pipes. Regional characteristics of form and finish had already emerged by this period, suggesting a well established local industry, and some of these traits were characterised by looking at comparative material from other sites, both regionally and nationally.

The detailed recording and analysis of larger bodies of material, preferably from across the city as a whole, is needed to strengthen and refine the preliminary observations in this report. It seems clear, however, that this particular pit group contained rather poor quality pipes, which seems at odds with the evidence provided by the other finds from this pit. It is suggested that a sudden decline in pipe quality may have occurred during the Civil War so that only poorer quality pipes were available for a period. If so, this particular assemblage may date from the 1640s and reflect the social upheaval of this event in the archaeological record.

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## REPORT 4. GLASS

## The Glass from 10 Commonhall Street, Chester

Dr Hugh Willmott

## Introduction

A small assemblage of glass was recovered from the excavations at 10 Commonhall Street, Chester. Some was rather recent, dating to the very late $19^{\text {th }}$ or $20^{\text {th }}$ centuries, and this is not considered in this report. However, forty-eight fragments deriving from a minimum of sixteen vessels or windows were earlier in date. Despite suffering ordinary surface weathering, all the glass is stable and requires no further specialist treatment.

## Discussion of the Glass

Given the very small quantity of glass recovered any detailed contextual analysis of the material would be largely meaningless. Instead the glass is discussed typologically, although it must be noted that many fragments do come from interesting sealed contexts. The assemblage can be divided into two broad categories; window and vessel glass.

Window glass
As is usual for the post-medieval period, all the window glass is plain (summarised in the table below). Consequently, in the absence of diagnostic features, it is very difficult to date them accurately. Nonetheless a broad period of production can be identified based on the colour of the metal and its degree of weathering. It must be noted that window glass could survive in situ for some considerable time before being broken and discarded. Most of the window glass dates to the $17^{\text {th }}$ century, and where grozed (pressure-flaked) edges survive it is clear the all the fragments form parts of diamond-shaped quarries, the standard glazing pattern for the period.

| Context | No Fragments | Date |
| :--- | :--- | :--- |
| 4 | 1 | $17^{\text {th }}$ century |
| 20 | 2 | $16^{\text {th }}$-early $17^{\text {th }}$ century |
| 22 | 2 | $17^{\text {th }}$ century |
| 23 | 3 | $17^{\text {th }}$-early $18^{\text {th }}$ century |
| 42 | 3 | $1^{\text {st }}$ half $17^{\text {th }}$ century |

Vessel glass
Whilst the window glass is relatively uninformative, the vessels are much more diverse in both their date and form (catalogued below). The most important of these are fragments from three good-quality drinking vessels. The first, GL1 is a small complete inverted baluster stem from a goblet, a type that is typically dated to the late $16^{\text {th }}$ or early $17^{\text {th }}$ centuries. A second glass, GL2, is similar but has a large more elongated stem often referred to a being 'cigar-shaped', and a type dating to the first four decades of the $17^{\text {th }}$ century. GL3 is more fragmented, but equally interesting. This is a 'lion-mask stem' that has been blown into a fixed two-piece mould to produce a complex design, only part of which survives. There is also an associated fragment of the goblet bowl, but this is undecorated. These three glasses are all made of a good quality near-colourless glass typical of English façon Venise work. Therefore, it is no coincidence that fragments of vessels similar to all three designs have been found among the working waste associated
with Sir Robert Mansell's furnace at Crutched Friars in London, and dating to the 162040 s, and it is likely that these examples from Commonhall Street were probably also produced there.

Other vessels may be more local in manufacture. GL4 is the base from an early $17^{\mathrm{th}}$ century pedestal beaker, a common drinking vessel for the period. Of a similar date are two small flasks. GL5 is globular in shape and decorated with faint optic-blown ribs, whilst GL6 is plain but oval in cross-section. These three vessels are all made in a mixed alkali glass that is characterised by its distinctive green tint, the result of impurities in the batch. The forms, whilst common nationally, are also typical of those known to have been made at the glass furnace operating at Haughton Green, Denton in the decades immediately prior to the Civil War

The remaining vessels are all larger containers. GL7 is the base from a $17^{\text {th }}$-century bottle with a square cross-section, usually known as a 'case bottle' as they were sometimes packed together in wooden crates for transport, often over very long distances. GL8 is the base and lower side from an early 'bladder-shaped' wine bottle from the first half of the $17^{\text {th }}$ century. Likewise, GL9 are fragments from at least three different 'onion-shaped' bottles (which have a slightly more globular shape than the bladder variety) and again date to the first half of the $17^{\text {th }}$ century. Wine bottles were the most common of postmedieval glass vessel, and whilst they certainly were produced for the function their name implies, it is clear that they were used for the storage of all kinds of household liquids and solids. Furthermore, they also could have long life-spans, and it is not at all unusual to find fragments of early wine bottles deposited in much later contexts.

## Catalogue of the Glass

GL1) One fragment of complete small inverted baluster stem from a goblet. Clear sodarich glass with light weathering. c.1570-1640.
Cesspit fill (60).
GL2) One fragment of near complete cigar stem from a goblet. Clear soda-rich glass with light weathering. c.1600-1640.
Ash dump (23).
GL3) Two fragments of upper stem and lower bowl from goblet. Stem is blown into a fixed two-piece mould decorated with lion masks and gadrooning above. Clear soda-rich glass with light weathering. c.1600-1640.
Fill of cesspit (25).
GL4) Two joining fragments of folded base from a plain pedestal beaker. Green-tinted mixed alkali glass with medium weathering. Base diameter 68mm. c.1600-1640.
Fill of rubbish pit (42).
GL5) One fragment of low pushed-in base and lower curving body from a small ribbed globular flask. Green-tinted mixed alkali glass with little weathering. Base diameter 45mm. c. 1550-1640.

Ash dump (23).
GL6) Two fragments of low pushed-in base and curving body from a small plain oval flask. Green-tinted mixed alkali glass with little weathering. Base diameter $32 \times 38 \mathrm{~mm} . c$. 1600-40.
Fill of rubbish pit (42).
GL7) One fragment of low base with a slight push-in from a square case bottle. Green mixed alkali glass with quite heavy weathering. Base diameter 95 mm . c. 1600-1650. Fill of cesspit (25).

GL8) Twelve fragments of pushed-in base and globular body from a bladder-shaped wine bottle. Green mixed alkali glass with quite heavy weathering. Base diameter 105 mm . c.1700-1740.

Make-up layer (65).
GL9) Fifteen fragments of pushed-in bases and globular bodies from a minimum of three different bladder or onion-shaped wine bottles. Green mixed alkali glass with quite heavy weathering. Base diameter 102mm. c.1680-1740.
Make-up layer (69).

## REPORT 5. SHELL

## 1. MARINE SHELL FINDS FROM 10 COMMONHALL STREET, CHESTER <br> (KATE PACK, L - P : ARCHAEOLOGY)

### 1.1.Context (20)

1.1.1. One oyster shell and two fragments were recovered from context (20), all being the Native Flat Oyster species (Ostrea Edulis) and bleached white.

### 1.2.Context (22)

1.2.1. Two large oyster shells and two fragments were recovered from context (22), being the Native Flat Oyster species (Ostrea Edulis)and bleached white.

### 1.3.Context (23)

1.3.1. Two oyster shells were recovered from context (23), being the Native Flat Oyster species (Ostrea Edulis). The shells are both bleached white with one having many holes in its outer surface from a parasitic worm.

### 1.4.Context (25)

1.4.1. This context contained fourteen oyster shells, similarly the Native Flat Oyster species (Ostrea Edulis). The shells are bleached white except for two having some brown outer surface remaining, four have damage from a parasitic worm.
1.5.Context (26)
1.5.1. One Native Flat Oyster shell was from context (26), still with some original brown shell colour remaining.

| Context | Material | Quantity | Weight (gm) | Common Name | Species |
| :---: | :--- | :---: | :---: | :---: | :--- |
| $(20)$ | Oyster shell | 3 | 90 | Common Flat Oyster | Ostrea Edulis |
| $(22)$ | Oyster shell | 4 | 350 | Common Flat Oyster | Ostrea Edulis |
| $(23)$ | Oyster shell | 2 | 100 | Common Flat Oyster | Ostrea Edulis |
| $(25)$ | Oyster shell | 14 | 860 | Common Flat Oyster | Ostrea Edulis |


| Context | Material | Quantity | Weight (gm) | Common Name | Species |
| :---: | :--- | :---: | :---: | :--- | :--- |
|  |  |  |  |  |  |
| $(26)$ | Oyster shell | 1 | 50 | Common Flat Oyster | Ostrea Edulis |

1.6.The Native Flat Oyster species is a marine species often used as a food source. This can indicate trade from the coast coming into Chester's port and can be commonly found in domestic waste pits from the medieval period through the post medieval period.

## REPORT 6. METALWORK

## 1. METAL FINDS FROM 10 COMMONHALL STREET, CHESTER

(KATE PACK, L - P : ARCHAEOLOGY)
1.1.Context (20)
1.1.1. From context (20) a small fragment of lead was recovered, thought to be window lead.

### 1.2.Context (22)

1.2.1. This deposit revealed a copper alloy bell shaped artefact c .6 cm in length with a small ring/hoop of the same material 2.5 cm in diameter. These artefacts appear to be a candle snuffer and a ring/hoop.

### 1.3.Context (23)

1.3.1. From context (23) there are three corroded iron artefacts, one resembling a nail, the others so badly deteriorated they are unidentifiable.

### 1.4.Context (41)

1.4.1. Recovered from (41) was a small iron nail 6 cm in length and a copper alloy ring, slightly larger than the ring from context (22) but similar in nature, a copper alloy small buckle or strap end 3 cm in length, and a large iron nail 9 cm in length.

### 1.5.Context (59)

1.5.1. From context (59) there are two lead balls 1.8 cm in diameter and a piece of melted or waste lead 8 cm in length.
1.6.Context (63)
1.6.1. A corroded iron pointing trowel was recovered from context (63), being 21 cm in length.

| Context | Artefact | Material | Dimension | Date |
| :---: | :--- | :--- | :---: | :---: |
| $(20)$ | Window edging | Lead | 30 mm | $17^{\text {th }} / 18^{\text {th }}$ century |


| Context | Artefact | Material | Dimension | Date |
| :---: | :---: | :---: | :---: | :---: |
| (22) | Candle snuffer | Copper alloy | 60 mm | $17^{\text {th }} / 18^{\text {th }}$ century |
|  | Ring | Copper alloy | 25 mm | $17^{\text {th }} / 18^{\text {th }}$ century |
| (23) | Nail | Iron | 48 mm | $17^{\text {th }} / 18^{\text {th }}$ century |
|  | Object | Iron | 65 mm | $17^{\text {th }} / 18^{\text {th }}$ century |
|  | Object | Iron | 90 mm | $17^{\text {th }} / 18^{\text {th }}$ century |
| (41) | Nail | Iron | 60 mm | $17^{\text {th }} / 18^{\text {th }}$ century |
|  | Ring | Copper alloy | 30 mm | $17^{\text {th }} / 18^{\text {th }}$ century |
|  | Buckle | Copper alloy | 30 mm | $17^{\text {th }} / 18^{\text {th }}$ century |
|  | Large nail | Iron | 90 mm | $17^{\text {th }} / 18^{\text {th }}$ century |
| (59) | Two balls | Lead | 18 mm | $17^{\text {th }}$ Century |
|  | Waste | Lead | 80 mm | $18^{\text {th }} / 19^{\text {th }}$ century |

## REPORT 7. ENVIRONMENTAL POTENTIAL

# The palaeoenvironmsental potential of a possible 'cess pit' deposit from 10 Commonhall Street, Chester (CHE/10CMS 07) 

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Birmingham Archaeo-Environmental, The University of Birmingham, Edgbaston, Birmingham, B15 2TT.

A 40ltr sample from 10 Commonhall Street, context (20), was assessed for environmental potential. The sample was recovered from a deposit, thought to be a cess pit which consisted of Green/yellow silt with inclusions of Late 16th /17th century ceramics, animal bone, crushed brick, degraded sandstone and charcoal.

The material was subject to sieving over 2 mm and $500 \mu \mathrm{~m}$ meshes to extract insect, mollusc, charred and waterlogged plant remains, small animal, bird and fish bones and charcoal. To extract Coleopteran remains, the resultant heavy residue was subject to the standard method of paraffin flotation as outlined in Kenward et al. (1980). The paraffin flot was then scanned using system for "scanning" faunas as outlined by Kenward et al. (1985). The sample assessed for charred remains was relatively small ( $<100 \mathrm{ml}$ ) and consisted predominantly of fine fragments of charcoal, animal and fish bone. The waterlogged residue was significantly larger (c.61) and contained larger fragments of charcoal, further animal and fish bone and clay pipe.

## Results <br> Botanical Evidence

Charred plant remains
Identifiable, charred plant material was limited to a single seed of Atriplex spp. (oraches), a taxa characteristic of waste and disturbed ground and coastal locations (Stace 1991), and single fruit of charred oat (Avena spp.). No further work is recommended on the charred plant remains from this site.

## Waterlogged plant remains

The assemblage included Sambucus nigra (elder), Ranunculus spp. (buttercup), Rubus spp. (bramble) and Fagopyrum sp. (?) (buckwheat). Of particular interest, if this feature was indeed a cess pit, is the large numbers of bramble pips (Rubus spp.) found at the site. Whilst commonly found on open, disturbed land in both urban and rural settings, such large concentrations of seeds from this species appear to be unusual in non synanthropic deposits and much commoner in those associated with human activity such as the Collonia (Hall and Kenward 1990), Coppergate (Kenward and Hall 1995), Skeldergate and 62-68 Low Petergate (Rosalind McKenna pers. comm.). At all four sites, it is suggested that bramble was used as a foodstuff.

The fruits and seeds of the herbaceous taxa recovered are largely indicative of waysides, waste and disturbed ground. The fruits and seeds were exceptionally well-preserved and present in large quantities. Species diversity however was restricted. Unless the analysis of this material can add substantially to existent knowledge about the environment at the site, no further work is recommended.

## Charcoal

The heavy residue from this site contained large fragments of well preserved charcoal. This material has potential for speciation, as is the case with the waterlogged plant remains. Unless the analysis of this material can add substantially to existent knowledge about the environment at the site, no further work is recommended.

## Insect Evidence

## Coleoptera

Coleoptera (beetles) and Diptera (true flies) were relatively limited. The condition of waterlogged plant remains from this sample clearly indicates the deposit has been waterlogged since deposition, hence the absence of insects in this sample is somewhat surprising.

Of the insects recovered from the deposit, all are associated with foul, rotting material, such as the Coleoptera, Ptinus fur, which forms part of Kenward's 'House Fauna' (Hall and Kenward 1990, Kenward and Hall 1997, Kenward and Hall 1995). Moreover the fly puparia recovered was limited to a few specimens of the sepsid, Thoracochaeta zosterae, which is commonly associated with cess in the archaeological record. Thoracochaeta zosterae for example has been recovered from contexts associated with this type of deposit in London and York (e.g. Kenward and Hall 1995, Rowsome 2000).

Whilst the insect evidence is somewhat ambiguous, the small assemblage recovered from this feature tentively supports the hypothesis that this feature functioned as a cess pit.

## Mollusca

No mollusc remains were recovered from this sample.

## Animal Bone

Both the heavy residue and the resultant flot contained large quantities of animal bone. At assessment stage, speciation of the remains is subjective and
full analysis would be required to provide confirm the identification of these remains.

Initial scanning of the fauna from this site suggests fish, small mammals and fowl. Vertebrate species recovered from the deposit include Tardus spp. (thrush family) and Oryctolagus cuniculus (domestic rabbit). It is also possible the deposit contains the remains of a juvenile ovi-caprid.

Further work on this assemblage of small animal bones to confirm the tentative identification undertaken as part of this assessment is recommended. Both the heavy residue and the flot have been retained for this purpose.

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## REPORT 8. FAUNAL REMAINS I

# REGIONAL ECONOMIES, DOMESTIC CRAFTS AND DINING ETIQUETTE: THE ANIMAL BONES FROM COMMONHALL STREET, CHESTER 

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Keywords post-medieval, Chester, domestic refuse, Carving Etiquette

## 1. Introduction

LP Archaeology's excavations at 10 Commonhall Street in Chester produced a small assemblage of vertebrate remains dating to the post-medieval period (spot dated to between the $17^{\text {th }}$ and $19^{\text {th }}$ century). Most of the material came from a series of pit fills, seemingly from a domestic residence. The assemblage therefore provides an indication of post-medieval husbandry practices and some insight into household craft, diet and dining etiquette.

## 2. Methods

The Commonhall Street assemblage was recorded at the Bioarchaeology Research Laboratory, University of Nottingham, using Serjeantson's (1996) 'zones’ system. These data produced the basic NISP (Number of Identified Specimen) and MNE (Minimum Number of Elements) counts. The MNI (Minimum Number Individuals) was calculated from the most common element according to the MNE, by taking sides into consideration.

Where possible specimens were identified to species, with sheep and goat being differentiated following Boessneck's (1969) and Payne's (1985) criteria. Undiagnostic skull fragments, ribs and vertebra (except the atlas and axis) were placed in animal size categories: large, medium and small. The material from these categories has been included in the percentage of identifiable bone. Bones that showed signs of burning or gnawing were noted and quantified. Butchery marks on the mammalian remains were recorded in detail using a modified version of Lauwerier's (1988) system: Lauwerier's location codes were used but mark types were differentiated with the addition of an alphabetical code - chop (a), cut (b), shave (c), saw (d), hook (e). Additional locational codes were utilised following Sykes (2001).

For the cattle, caprines and pigs dental wear was recorded using Grant's (1982) system. This was undertaken for mandibles (with two or more ageable teeth), single deciduous fourth
premolars and third permanent molars. Suggested ages were taken from Legge (1992) for cattle, Payne (1973) for caprines and Hambleton (1999) for pigs. Epiphyseal fusion was recorded, and interpreted using Sisson and Grossman's (Getty 1975) timings for epiphyseal closure.

The sex of cattle and caprines was determined from pelvis morphology (Grigson 1982). Pigs were sexed on the basis of their upper and lower canines (Schmid 1972).

Unless otherwise stated measurements were taken following the standards set by von den Driesch (1976) and Payne and Bull (1988). These are presented in Appendix 1. Data accumulated by the Animal Bone Metrical Archive Project were used for comparison (http://ads.ahds.ac.uk/catalogue/collections/blurbs/348.cfm).

## 3. THE ASSEMBLAGE: RECOVERY, TAPHONOMY AND TAXA REPRESENTATION

Most of the Commonhall Street assemblage derived from pits, in particular pit 1 (which produced $73 \%$ of the total material) and pit 5 (19\%). Low rates of canid gnawing indicate that the material was buried rapidly after disposal or was at least out of reach of scavenging dogs, a scenario consistent with pit burial. Presence of some very poorly preserved specimens indicates that some of the material is residual or redeposited; this may also explain the human bone that was incorporated into the assemblage (Table 1). The assemblage was collected by hand but rates of recovery were seemingly good, evidenced by the quantities of bird remains and neonatal bones (Tables 1 and 2 ).

Composition of the assemblage is shown, by feature and context, in Table 1. Considering the assemblage's small size, the number of taxa represented is diverse: whilst cattle, caprines (sheep/goat - one goat horn-core is represented) and pig make up the bulk of the material, other domesticates (dog, cat, domestic fowl and, presumably domestic, goose) are also represented. Wild animals - red deer (Cervus elaphus), hare (Lepus sp.), rabbit (Oryctolagus cuniculus) and fish (Gadid sp.) - are present in small numbers. It is uncertain whether the duck (Anas sp.) bones derive from wild or domestic animals.

## 3. Cattle, Caprines and Pigs

The relative frequencies of the main domesticates are typical of a post-medieval urban assemblage: regardless of quantification technique, cattle are the best represented taxon followed by caprines and then pig (Albarella 1997a; Sykes 2006; Thomas 2005). The ageing data also appear to reflect wider patterns. In a period when sheep were raised primarily for their wool (Albarella 1997a) it is unsurprising that the caprine remains come predominantly from adult animals: most of the longbones have fused epiphyses and the one ageable mandible derives from an animal aged approximately 4-6 years of age (Tables 2 and 3). By contrast, the pig remains demonstrate a predominance of sub-adult animals, including neonatal individuals, which suggest that back-yard breeding in sties may have been taking place (Campbell 1997, 228). Cattle ageing data indicate a mixture of both adult and juvenile individuals. Several of the long-bones came from calves, as did the single ageable mandible which belonged to an animal culled before three months of age (Tables 2 and 3). Again, this age pattern fits the wider picture: it has been shown repeatedly (e.g. Albarella 1997a; Davis and Beckett 1999; Grant 1988; Sykes 2005) that calves are abundant on post-medieval sites, indicating the milk- and meat-based economy of the time.

In terms of body part patterns, all skeletal elements appear to be represented, although in the case of pigs the sample size is perhaps too small to be certain. Sheep show a slight overrepresentation of meat-bearing bones from the forelimb (especially scapula and radius), suggesting that shoulders of mutton were brought preferentially to the site. Goat is represented by a single horn-core. The cattle foot bones are particularly abundant, especially in context 25 where metapodia account for 9 of the 16 cattle specimens. This deposit represents a minimum of three individuals; these would have produced a large quantity of meat, more than could be consumed by a single household, especially prior to refrigeration. It seems possible that these animals were butchered on site but that their skins and much of their meat were sold on to supply the city's food requirements and, in particular, its tanning trade (e.g. Sykes et al. n.d.1).

Several of the cattle metapodia exhibit evidence of pathology: periosteal growth is apparent on three metatarsal, one metacarpal demonstrated an extension of its medial condyle and another metacarpal showed an extension of its lateral proximal articulation. In the past these conditions have been linked to trauma associated with traction (Baker and Brothwell 1980), and the same explanation may apply here, although it is equally possible that the changes may
be age-related. Osteochondrosis was noted on five out of nine proximal metacarpals. The aetiology of this condition is not certain but current literature suggests that it may be congenital or perhaps linked to rapid growth (Ytrehus et al. 2007).

The cattle metacarpals, being sexually dimorphic (Albarella 1997b), provide an opportunity to consider the sexual composition of the assemblage. Figure 2 shows a plot of the shape indices for the Commonhall Street specimens against those from other contemporary sites. Two clusters are apparent and, if it is assumed that the lower cluster, of more slender specimens, represents females and the more robust group equates to males, all the Commonhall specimens plot within the slender 'female' group. Their size is consistent with specimens from other post-medieval sites in Chester, the average being slightly larger than from other areas in the country (Figure 3).

Few caprine measurements are available but, when shown in comparison with data from other contemporary sites, it would seem that the individuals represented at Commonhall are of a size representative of post-medieval sheep/goats (Figure 4). None of the pig bones were measurable but one unfused ulna was noted for its large size: this specimen must represent one of the fast-growing animals that came to prominence in the post-medieval period (Albarella 1997a, 25; Thomas 2005, 53).

Butchery marks were evident on several of the main domesticate bones. Perhaps the most interesting is the caprine scapula that demonstrated a series of cut marks on both its medial and lateral surfaces (Figures 5a-c). It is probable that the marks were created when the meat was filleted from the bone and, as such, they reveal something of carving techniques. Indeed, the butchery patterns conform closely to those that might have resulted from the carving etiquette described in Mrs Beeton (2006, 338 - my comments in parentheses):
'The knife should be drawn from the outer edge of the shoulder in the direction of the line from 1 to 2 [see Figure 5c], until the bone of the shoulder is reached. As many slices as can be carved in this manner should be taken [see Figure 5a] and afterwards the meat lying on either side of the blade-bone should be served, by carving in the direction of 3 to 4 and 3 to 4 [unfortunately this part of the blade is absent]. The uppermost side of the shoulder being now finished, the joint should be turned and the slices taken off along its whole length [see Figure 5b]'

## Dog and Cat

Two cat bones (a humerus and a tibia) were recovered from pit 1 (context 25) and three articulating cervical vertebrae (axis plus cervical 3 and 4) were retrieved from pit 2 (context 42). The dog vertebrae appear to have come from an old animal: they exhibit evidence of osteoarthritis, with periosteal bone growth around an area of eburnation on the articular surface. These specimens are presumably re-deposited and it may be assumed that the pathological condition, which caused slight ankylosis of the vertebrae, is why the bones were recovered in articulation.

## Birds

Of the birds, domestic fowl are the best represented taxon, followed by goose and then duck. All parts of the domestic fowl skeleton are present. Several specimens contained medullary bone, indicating that they came from hens killed whilst in lay. No male specimens were noted. Approximately half of the remains come from juvenile animals; this pattern is seen nationwide, suggesting that emphasis was being placed on meat production (Grant 1988; Albarella 1997a, 27). Geese are represented almost exclusively by their wing bones. Three of the six goose specimens (humerus, carpometacarpus and sternum) came from pit 1 (context 25), and may derive from one individual, perhaps the remains of a single meal. Fine cut marks are apparent on the sternum (Figure 6a-b), indicating that the meat was carved off the bone into slices, in the manner recommended by Mrs Beeton (2006, 484): 'Evenly-cut slices, not too think or too thin, should be carved from the breast in the direction of the line from 2 to 3 '.

## Wild Animals

Red deer are represented exclusively by antler. The fragment from context 59 is a shed specimen but the second, unstratified, fragment is attached to the pedicle, so presumably came from a hunted animal. Both antler burrs appear to be waste from bone working, as they exhibit chop/saw marks created as the beam was removed. Whilst these deer may not have contributed to the diet of Commonhall's residents, it is clear that small amounts of game, in particular rabbits and hare, were being eaten. Figure 7 shows the plot of the lagomorphs' humerus measurements against those from modern and archaeological rabbits. It can be seen that the hare specimen plots far outside the cluster for rabbits, confirming its identification as Lepus sp. Commonhall's rabbit also fall towards the top end of the comparative rabbit
distribution, demonstrating that, by the post-medieval period, this introduced Mediterranean species had increased in size in order to adapt to the colder British climate (Sykes 2007). One vertebra from a large gadid was recovered but no other fish remains were noted.

## Discussion and Conclusion

The Commonhall assemblage, although small, is not without interest. In terms of economic evidence the data conform to national patterns. For instance, cattle are the best represented taxon and, together with pig, domestic fowl and goose, they appear to have been raised primarily for meat; although sheep were important as wool producers. The size of the main domesticates also appears consistent with evidence from other contemporary sites.

There is some indication that craft activities were being undertaken on site - not only were fragments of worked antler recovered but the slight over-representation of cattle feet suggests that low level butchery may have been practiced in the area, the primary waste retained on site whilst the meat-bearing bones were sold on. The presence of a goat horn-core also suggests craft activities: goat remains are scarce in the zooarchaeological record and when they are represented it is almost exclusively by horn-cores, generally found associated with tanning deposists. Albarella $(2003,81)$ has argued that goat skins (with horns attached) were imported to Britain to supply the tanning industry and, given that Chester was a centre of tanning, this seems a feasible explanation.

Whilst some of the assemblage may reflect craft activities, it is clear that most of the remains are derived from domestic refuse, some of which appear to be kitchen or table waste. This is indicated by the low representation of non-food species (cat, dog and horse - the last is totally absent) and the presence of rabbit, hare, bird and fish bones. Overall the assemblage suggests a varied diet: beef, pork and mutton would have provided the bulk of the meat consumed, whilst poultry and game made less frequent (but probably more socially significant) contributions to the diet. The dietary variation and, in particular, the consumption of game hint that the site's occupants were of some social standing. This is also suggested by the evidence for carving practices - apparent on the sheep scapula and goose sternum - which indicate that the consumers were keen to participate in the 'display' elements of dining, particularly fashionable between the between the $17^{\text {th }}$ and late $19^{\text {th }}$ centuries (Symmons 2002, 445). The dynamics and social meaning of carving are yet to be examined from a
zooarchaeological perspective and the Commonhall assemblage has highlighted this as a potentially fruitful area of research.

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Figure 1: Relative frequencies of the main domesticates, according to NISP and MNI


Figure 2: Shape of the Commonhall cattle metacarpals, shown against data from other post-medieval sites N.B. comparative data from ABMAP, Thomas (2005), Sykes et al. (n.d.) and Sykes (in prep)


Figure 3: Inter-site variation in the greatest length measurements of cattle metacarpals N.B. comparative data from ABMAP, Thomas (2005), Sykes et al. (n.d.) and Sykes (in prep)



Figure 5: Commonhall sheep scapula ( $a$, lateral view and $b$, medial view) showing cut marks indicative of carving etiquette, as described by Mrs Beeton (image c, which depicts a shoulder of mutton, is taken from Beeton 2006, 338).


C


Figure 6: Commonhall goose sternum (ventral view) showing cut marks indicative of carving etiquette, as described by Mrs Beeton (image b taken from Beeton 2006, 484).


Figure 7. Plot of commonhall's lagomorph humerii - greatest length against breadth of distal N.B. Comparative data taken from Sykes 2007.


## REPORT 9. FAUNAL REMAINS II

## Commonhall Street faunal assemblage from environmental samples Hannah Russ (University of Bradford)

## Introduction

Faunal remains were recovered by flotation from a 40litre sample from context (25) at the 10 Commonhall Street site in Chester City centre (CHE/10 CMS 07). The material represents mammal, fish and bird species. 266 bone fragments could be assigned to bird, mammal or fish, with 53 fragments remaining unidentifiable due to fragmentation.

## Method

The faunal remains were identified using reference material at the University of Bradford and published identification guides (Cohen \& Serjeantson 1986; Hillson 1986; Yee Cannon 1987).

## Bird remains

28 fragments of bird bone were present in the Commonhall Street sample. These represented a minimum number of individuals (MNI) of three, based on tarsometatarsus presence. The remains represent at least one small, most likely Turdus merula (blackbird) and two larger birds, one Columbidae (pigeon and dove family) and one possible Anatidae (duck family). Remains were well preserved, no cut-marks were observed.

## Fish remains

141 fragments of fish bone were recovered from the sample, of which 119 ( $84 \%$ ) are rib and spine fragments, see Table 1.

| Element | Frequency |
| :--- | :---: |
| Ribs and Spines | 119 |
| Vertebrae | 9 |
| Cranial | 11 |
| Other | 2 |
| Total | $\mathbf{1 4 1}$ |

Table 1: Fish remains from 10 Commonhall Street, Chester.
Several fragments could be identified to family level, see Table 2.

| Family | Species | Common names | Frequency |
| :--- | :--- | :--- | :---: |
| Clupeidae | cf. Clupea <br> harengus | Atlantic herring | 1 |
| Gaididae (small) | $?$ | Cod family | 1 |
| Pleuronectiformes | lf. Pleuronectes <br> platessa | European plaice | 6 |
| Acipenseridae | $?$ | Sturgeon | 1 |

Table 2: Species identification for fish remains at 10 Commonhall Street, Chester.
In any case not more than one individual of each species was present. A range of marine species are represented. Acipenseridae (Sturgeon) is represented by a single scute; this is a rare find for an English site. Although their flesh is edible they are
more frequently exploited for their eggs, which are sold as caviar. King Edward II (1284-1327) passed a law stating that all sturgeon caught in English waters became property of the Royal Family. This law was not eliminated until 1971. Species in the Acipenseridae family are anadromous, migrating into rivers and streams to spawn but spending much of their life in the sea. They are most frequently caught during migration, from rivers and streams, as during marine life they are bottom feeders and more difficult to catch during this phase. The sturgeon is now considered an endangered species and is almost extinct in Britain (Birstein et al. 1997). Gadids, clupeids and pleuronectiformes are edible marine species, the specimens represented in the Commonhall Street assemblage are small examples.

## Mammal remains

97 fragments of mammal bone were recovered from the 10 Commonhall Street faunal assemblage. The mammal remains are well preserved and they do not display evidence for butchery. As with the fish remains, no more then one specimen of each species was represented in the skeletal remains. The most common elements by far were vertebrae (19) and phalanges (21). Vertebrae represented the whole range of species present. While phalanges were unidentifiable to species level, they were consistent in size with Oryctolagus cuniculus, (European rabbit); the frequency recorded still does not exceed what might be expected for a single specimen. Based on such few remains any interpretation of the element representation pattern within the mammal remains at Commonhall Street is not possible. Should a pattern of high vertebrae and phalange element representation continue across the site or within this context, and should cut-marks be recorded, they may be interpreted as butchery waste.

|  | Species | Common <br> Name | Frequency | MNI |
| :--- | :--- | :--- | :--- | :--- |
| Small <br> carnivore | Cf. Felis catus | Domestic <br> cat | 3 | 1 |
| Lagomorph | Cf. <br> Oryctolagus <br> cuniculus | European <br> rabbit | 7 | 1 |
| Large rodent | Cf. Rattus sp. | Rat | 5 | 1 |
| Juvenile rodent | Juvenile <br> Rattus sp. | Juvenile <br> rat | 5 | 1 |
| Small ungulate | Ovis/Capra | Sheep/goat | 1 | 1 |

Table 3: Identifiable mammal remains from Commonhall Street, Chester.

## Discussion

The faunal remains from (25) represent a diverse range of wild and domestic animals. While the fish remains are likely to represent food waste, smaller bird and mammal remains (e.g. Rattus sp.) are more likely to have accumulated though natural processes, or disposal of natural or accidental death carcasses. The presence of Acipenseridae (Sturgeon) is interesting, given contemorary laws that stated that all sturgeon caught in the Britian belonged to the Royal Family, however, permits were available that allowed them to be caught and eaten by non-Royals and consumption may not have fallen within the law. The limited material recovered from the sample prevents further interpretation.

No further work on the faunal remains from Commonhall Street could provide additional data for interpretation of the site.

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## OASIS FORM <br> APPENDIX 4

## OASIS DATA COLLECTION FORM: England

List of Projects | Search Projects | New project | Change your details |HER coverage | Change country | Log out

## Printable version

## OASIS ID: Iparchae1-71306

## Project details

Project name
10 Commonhall Street
Short description of the Archaeological excavation of land to the rear of 10 Commonhall Street, Chester project
Project dates Start: 20-10-2007 End: 28-01-2010
Previous/future work Yes/No
Any associated project CHE/10 CMS 07 - Sitecode
reference codes

| Type of project | Recording project |
| :--- | :--- |
| Site status | Area of Archaeological Importance (AAI) |
| Site status | Conservation Area |
| Current Land use | Industry and Commerce 3 - Retailing |
| Monument type | NONE None |
| Significant Finds | TILE Post Medieval |
| Investigation type | 'Full excavation' |
| Prompt | Direction from Local Planning Authority - PPG16 |

## Project location

Country
Site location
Postcode
Study area
Site coordinates

Height OD / Depth

Project creators
Name of Organisation
Project brief originator
Project design originator
Project director/manager

England
CHESHIRE CHESTER CHESTER 10 Commonhall Street
CH1 2BJ
220.00 Square metres

SJ 34048136621452.9226334516 -2.9810927705 525521 N 0025851 W Point

Min: 23.00 m Max: 25.00 m

L-P : Archaeology
Local Authority Archaeologist and/or Planning Authority/advisory body
L-P : Archaeology

Blair Poole

| Project supervisor | Matthew Williams |
| :---: | :---: |
| Type of sponsor/funding body | Developer |
| Name of sponsor/funding body | Got Wine |
| Project archives |  |
| Physical Archive recipient | Grosvenor Museum |
| Physical Contents | 'Metal','Animal Bones','Ceramics',''Glass' |
| Digital Archive recipient | Grosvenor Museum |
| Digital Contents | 'none' |
| Paper Archive recipient | Grosvenor Museum |
| Paper Contents | 'none' |
| Paper Media available | 'Context sheet','Drawing','Manuscript','Map','Matrices','Photograph','Plan','Report','Section' |
| Project bibliography 1 |  |
|  | Grey literature (unpublished document/manuscript) |
| Publication type |  |
| Title | Archaeological Excavation of land off 10 Commonhall Street, Chester |
| Author(s)/Editor(s) | Hall, J. |
| Author(s)/Editor(s) | Poole, B. |
| Other bibliographic details | LP0609C-AMR-v1.6 |
| Date | 2010 |
| Issuer or publisher | L-P : Archaeology |
| Place of issue or publication | Chester |
| Description | Grey literature report concerning excavation carried out at 10 Commonhall Street, Chester |
| Entered by | B Poole (b.poole@lparchaeology.com) |
| Entered on | 28 January 2010 |

## OASIS:

