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Cover: The interior of St James' Priory Church, Bristol, showing columns dating to c1180, looking east.

CONTRIBUTIONS

All articles are subject to refereeing. Prospective contributors are welcome to discuss possible contributions with the Editor before submission. Statements in the journal reflect the views of the authors, and not necessarily those of the Society or Editor.

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ARCHAEOLOGICAL WORK AT 22-25 QUEEN SQUARE AND 42-44 WELSH BACK, BRISTOL, 2002-2006

by
Reg Jackson

SUMMARY

During the medieval period the area to the south of Bristol known as The Marsh was used mainly for agricultural purposes. However, in the second half of the 17th century the dumping of domestic and industrial rubbish took place on a large scale to reclaim The Marsh for the construction of Queen Square. This episode of dumping began on the site after 1678 but had stopped by 1709 when building work on the Queen Square houses commenced. Between 1713 and 1715 the first property on Welsh Back, to the rear of the Queen Square houses and fronting the quays on the River Avon, was built. The last property was built on the Welsh Back frontage in 1793. Archaeological and documentary evidence is used to record the history and development of the site and the subsequent changes, both in terms of structure and use, to the Queen Square and Welsh Back buildings. The important assemblages of artefacts and environmental material from the late 17th-/early 18th-century dump deposits are reported on in full.

INTRODUCTION

This report is concerned with the history and archaeology of nos. 22, 23, 24 and 25 Queen Square, nos. 1 and 2 Bell Lane and nos. 42, 43 and 44 Welsh Back, Bristol (Fig.1; NGR ST 5889 7248). The site is located 450 metres to the south-west of Bristol Bridge between the River Avon – now the Floating Harbour – and Queen Square in St Nicholas' parish. It is bounded on the north by no. 21 Queen Square, east by Welsh Back, south by Redcliffe Way and west by Queen Square.

Circumstances of the Project

In 1993 a planning application was submitted by NatWest Estates Management and Development Limited for the demolition and subsequent redevelopment of nos. 22 to 24 Queen Square and nos. 42 to 44 Welsh Back together with the sites of no. 25 Queen Square, nos. 1 and 2 Bell Lane and no. 42 Welsh Back which had been demolished in the 1930s for the construction of Redcliffe Way. Only no. 42 Welsh Back had subsequently been rebuilt.

As part of the planning process Bristol and Region Archaeological Services were commissioned to carry out an archaeological desktop study of the site (BaRAS 1993). It was considered to have archaeological potential due to its location on the waterfront downstream of Bristol Bridge, the lowest medieval crossing point on the River Avon, and as an area of post-medieval land reclamation and development. In Bristol a 'back' is a medieval term which refers to a street running along the top of, or alongside, a quay.

Research showed that this area was a marsh until the later 17th century. Then, after the deposition of considerable quantities of rubbish to raise the level of the land, work began in 1699 on the development of what was to become Queen Square, the second largest Georgian square in Britain. Initially no commercial development was allowed in the Square but by the end of the 18th century warehouses and lofts had been built in the back gardens of the Queen Square houses, especially where those gardens backed onto the Welsh Back quayside. Documentary evidence suggested that no. 42 Welsh Back was in existence by 1715 and that by 1793 the whole of the site had been developed.

The desktop study identified the presence of substantial cellars beneath no. 43 Welsh Back but it was considered that areas of archaeology would survive both around and even below the cellars due to the anticipated depth of the late 17th-century dumped deposits overlying the natural alluvium.

An archaeological mitigation strategy was put forward proposing the excavation of evaluation trenches to assess the degree of survival of archaeological deposits and features. In 1994 Bristol and Region Archaeological Services carried out the evaluation which involved the excavation of two trial trenches through the floors of the cellars under no. 43 Welsh Back (BaRAS 1994). This revealed deposits of ash and other material representing a series of dumping and levelling layers immediately pre-dating the start of the development of Queen Square and continuing into the early 18th century. The natural alluvial clay was located at 6.9 metres above Ordnance Datum (OD), some three metres below the present ground level. There was no evidence of occupation or for the type of land use on the site before the 17th century although sampling of the waterlogged alluvial clay for plant macrofossils and insect remains produced some information concerning the natural environment of the marsh area (Jones 1994).

Planning Permission and Conservation Area Consent for demolition of the buildings were granted in 2002 subject to a condition requiring the implementation of a programme of

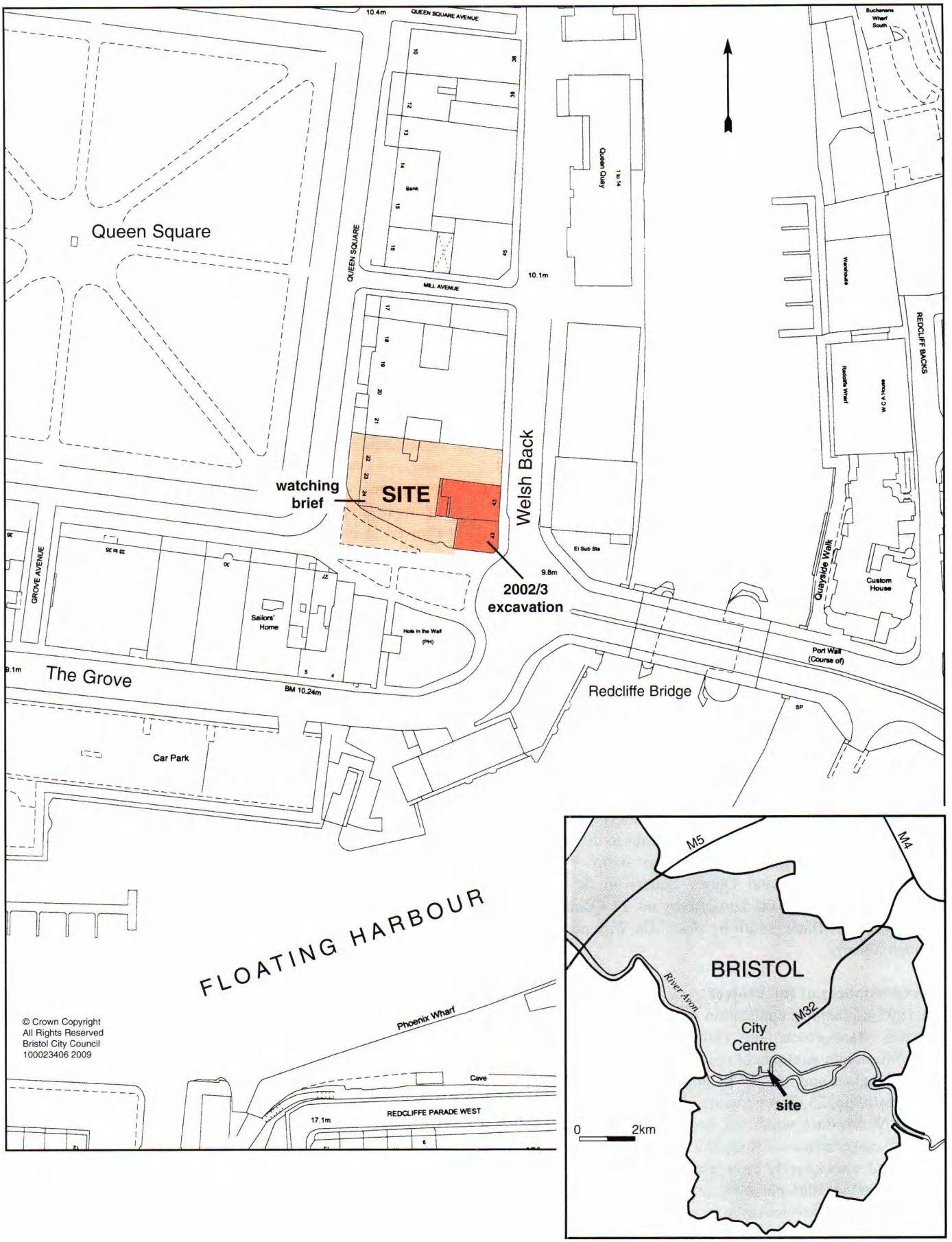


Fig.1 Site location map, scale 1:1500.

archaeological work by Bristol and Region Archaeological Services. This comprised an area excavation on the site of nos. 42 and 43 Welsh Back, a building survey of the cellars of nos. 22 to 24 Queen Square and no. 44 Welsh Back and a watching brief during groundworks on the Queen Square and Bell Lane properties. The excavation was carried out by Dave Stevens between November 2002 and January 2003 while the building survey and watching brief was undertaken by Kevin Potter and Stuart Whatley between August 2005 and October 2006.

Geology and Topography

The site is located on the west bank of the River Avon at a height of 9.8 metres OD. The channel of the river is filled with alluvial silt, largely composed of organic clays, laid down since the last Ice Age. In places the silt overlies, or lies against, the earlier gravel terraces. To the north, the ridge on which Bristol castle and parts of the city were built, are areas where Triassic strata overlie strata of the Quartzitic Sandstone Group of the Carboniferous system. The Triassic deposits are an irregular mixture of variable materials believed to have formed on a land surface from the weathering and disintegration of the rocks exposed at the time. These include the fine-grained Keuper Marl (now commonly referred to as Mercia Mudstone), the course grained Sandstone in Keuper and the very coarse grained Dolomitic Conglomerate.

The geology underlying the site comprise alluvial deposits of riverine origin, consisting of a soft to very soft brownish-grey clay becoming a dark bluish-grey silty clay at depth. These rest on Triassic sandstone and Mercia mudstone.

The site is situated some 570 metres to the south-west of the centre of the city, as defined by the crossing point of Bristol's four main medieval thoroughfares, and 280 metres outside the mid 13th-century defences of the city.

Although the site is located some 45 metres behind the modern waterfront on the west bank of the River Avon (Floating Harbour), it would have been very close to the river-bank during the medieval and post-medieval periods. The river was tidal until the construction of the Floating Harbour in the early 19th century.

The surface of the natural alluvial clay below the site lies at around the height of Mean High Water Spring tides which today are at about 6.9 metres OD, while in the medieval period they are estimated to have been somewhat lower at 6.4 to 6.7m OD (Jones & Watson 1987, 139-141). Consequently the area of the site and probably the whole of the low-lying land between the rivers Avon and Frome (now occupied by Queen Square) would have been subject to inundation during periods of high tide and flood. Early maps and documents refer to this area of Bristol as 'The Marsh' and it is possible that even agricultural use of this land was limited by its often waterlogged nature during the medieval and early post-medieval periods.

Historic Street Numbers

The street numbers of the properties have changed since the 19th century and these changes are listed below:

Modern Street No.	*Historic Street No.*
22 Queen Square	21 Queen Square
23 Queen Square	22 Queen Square
24 Queen Square	23 Queen Square
25 Queen Square	24 Queen Square
1 Bell Lane	Unchanged
2 Bell Lane	Unchanged
42 Welsh Back	44 Welsh Back (The Bell Public House)
43 Welsh Back	43 and 42 Welsh Back
44 Welsh Back	41 Welsh Back

The following report will be dealing with the properties mainly as they appeared in the 18th and early 19th centuries and will be quoting from and reproducing contemporary documents, maps and plans. Therefore, in order to avoid confusion, it has been decided to use only the historic street numbers.

THE HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

BRO = Bristol Record Office
BRSMG = Bristol City Museum and Art Gallery

Before the middle of the 13th century the marsh on which Queen Square was to be built had been separated from the city by the River Frome. At that time the course of the Frome probably followed the line of the present King Street, its confluence with the River Avon being about 130 metres downstream of Bristol Bridge.

It is clear from previous archaeological work that the Frome formed a boundary between the medieval town and the marsh. Excavations at no. 5 Welsh Back, on the north (city side) of the former river-channel, produced evidence of human activity dating to the 11th and 12th centuries while the presence of pits and postholes showed that occupation had certainly commenced there by the late 12th century (Rawes & Wills 1996, 170). However, excavations at nos. 1 and 2 King Street, close by but on the south side of the river-channel, revealed no evidence of occupation on the marsh which, although subject to low level flooding, had been dry enough to allow the development of two successive topsoil horizons containing residual finds of 12th- and early 13th-century date (Williams 2003, 117).

In about 1240 part of the marsh to the south of the Frome was purchased by the city from the abbey of St Augustine and between 1240 and 1247 a new channel for the river was cut across it to meet the River Avon at what is now Canon's Marsh (Veale 1933, 89-90). 'The Quay' was built on the east bank of this new channel and this began to handle the bulk of Bristol's shipping trade, in particular ocean-going vessels, while the old quays on the banks of the Avon were apparently relegated to dealing with mainly coastal traffic (Sherbourne 1971, 7).

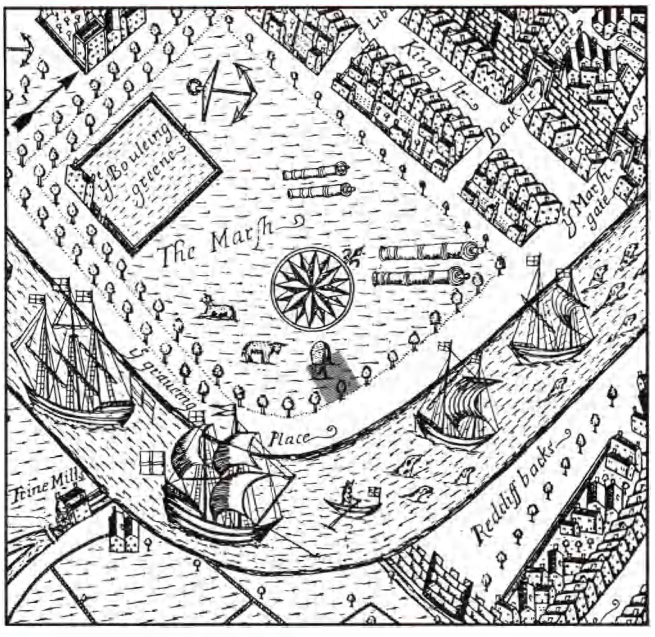


Fig.2 Millerd's map, 1673.

A new defensive line known as the Marsh Wall was built at the south end of The Quay in about 1250. It ran east to the River Avon along the northern side of what is now King Street and it seems likely that the ditch outside the Marsh Wall utilised the old channel of the Frome. From the 13th century the area of the river frontage between the Marsh Wall and Bristol Bridge to the north was being used as a quay, known variously as The Back, St. Nicholas Back or 'Avenbakke'.

The excavation at nos. 1 and 2 King Street showed that the diversion of the Frome had opened up at least part of the marsh for use by the inhabitants of the town. Here the bank of the Avon had been modified by a steep-sided cut through the alluvium which was perhaps associated with the provision of a quay. Reclamation of the marsh then took place and a stone wall was built together with a path leading down to the waterfront. Beside the path was a line of post-settings. A later phase of medieval activity, dating from the 15th century, was marked by an extensive, if somewhat rudimentary, stone surface thought to have been laid down to consolidate the river-bank for beaching vessels and other dockside activities (Williams 2003, 117). Further south along the bank of the Avon a deep layer of crushed limestone was noted immediately to the east of the present Welsh Back during the observation of building work. This was interpreted as a road or hard-standing of possible medieval date (Ponsford *et al* 1989, 248).

Despite this activity close to the bank of the Avon from the mid 13th century it is clear that the majority of the marsh was unoccupied during the later medieval period. It seems to have been used chiefly for agricultural purposes and during the 16th century there are records of the Bristol Corporation taking revenues from the city's butchers for grazing the marsh. Even by 1581 Georgius Hoefnagle's map shows the area to the south of the Marsh Wall as being unoccupied although this cannot be regarded as strictly accurate as the Mayor's Audit of 1557 mentions two rope houses in the area.

It has also been suggested that parts of the marsh were used for shipbuilding throughout the late medieval and early post-medieval periods and that docks had been constructed along the river-bank (Sherbourne 1971, 17; Farr 1977, iv-vi). Certainly the excavation in 1978 at Narrow Quay revealed two docks on the east side of the new Frome channel and immediately to the south of the line of the Marsh Wall. One of these was identified as St. Clement's Dock from which a ship known as the 'Minion' was launched in 1581. The dock was later filled with rubbish and a walled dock built to its south in about 1625. The latter was owned by Sir Robert Aldworth, a prominent Bristol merchant (Good 1987). In the later 17th century the docks went out of use and were built over as the quay was extended southwards along the river-bank, Aldworth's Dock being infilled in about 1687. Subsequently the shipbuilding industry was transferred to the opposite bank of the river (Farr 1977, iv).

In 1572 it was reported by Adam's Chronicle that a building had been constructed on the marsh 'for practice shooting with guns with bullets', and archery butts for the general use of the citizens had apparently existed there for some time. When Queen Elizabeth visited the city in 1574 a platform was erected on the marsh for the royal party to view a mock battle. The marsh also provided a public open space for walkers, although the Corporation tolerated the dumping of refuse in the area to the extent that the condition of the marsh became a 'scandal'. In 1610 provisions were made for reparation of the marsh and £4 per annum was paid to two labourers to keep the area clean.

In 1622 a bowling green was laid out towards the south-west corner of the marsh for 'gentlemen and merchants to recreate themselves on'. Apparently visitors described the marsh as 'pleasant' and 'delightful' and observed how the company of the town walked there in the evening (Lobel &

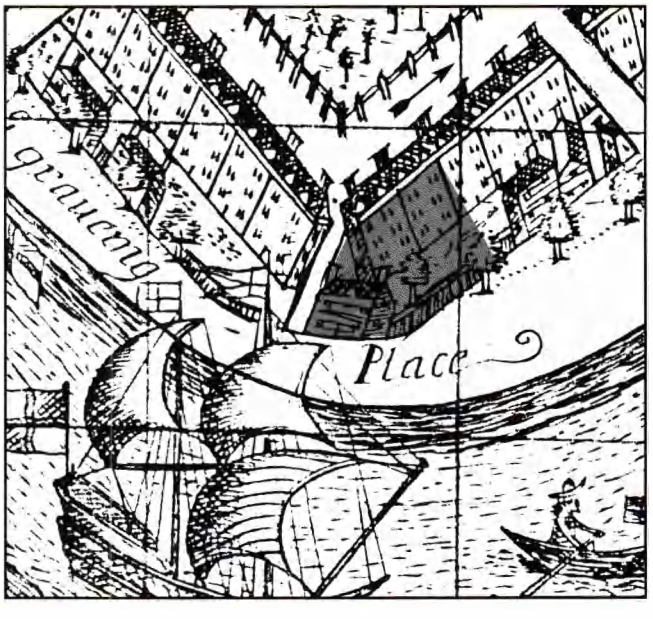


Fig.3 Millerd's map, c1715.

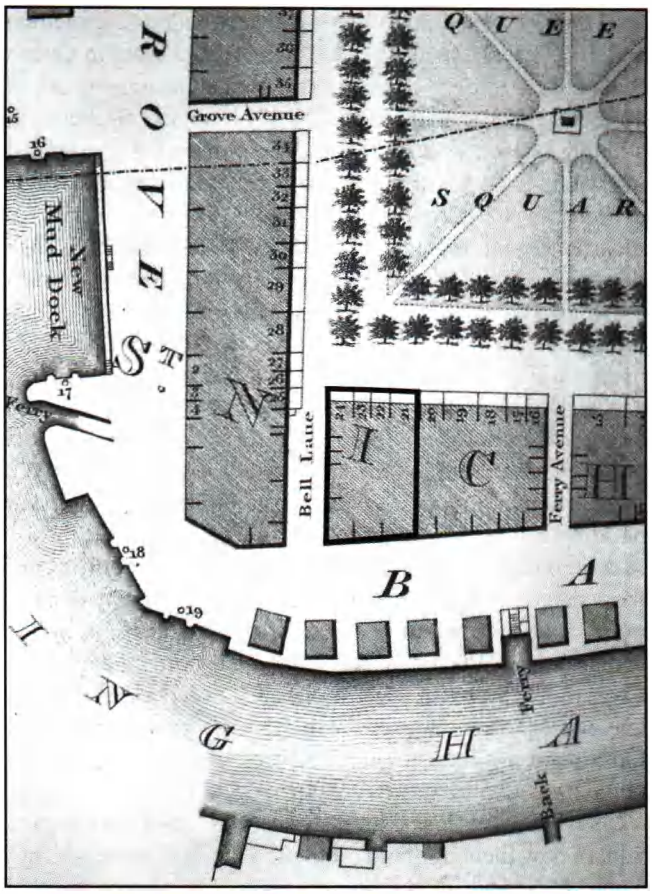


Fig.4 Plumley's map of the Queen Square area, 1817.

Carus-Wilson 1975, 18). The bowling green had to be removed for the construction of a gun battery during the Civil War but was reinstated in 1656 with a small lodge for the bowlers to use, as depicted on Millerd's maps of 1670 and 1673 (Fig.2).

After the Civil War the city began to expand to the south of the Marsh Wall. By 1650 five houses had been built against the outside of the Marsh Wall and an excavation in 1960 showed that a bastion on the Marsh Wall had been demolished for the construction of St Nicholas's Almshouses between 1652 and 1656 (Barton 1964). Encroachment onto the marsh continued and by 1673 Millerd's map shows houses built along the south side of King Street and on the west side of the marsh.

It seems likely that reclamation of the river-bank along Welsh Back probably began during the same period. In 1989 an observation of building work on the river frontage 130 metres to north of the present site revealed three clear post-medieval phases of reclamation of the river and the original bank of the Avon was found to lie 16 metres behind the present quay wall (Ponsford *et al* 1989, 248).

Jacobus Millerd's first map of Bristol of *c*1670, showed The Marsh as largely an open space with a few tracks, one of them laid out approximately on the line of the present eastern side of Queen Square and labelled as 'the Roperie' (*i.e.* a ropewalk). His slightly later map of 1673 showed nothing at all on the Welsh Back site although it refers to the waterfront on the south-east corner of the marsh, close to the site, as 'ye graveing place' (Fig.2). This implies that the waterfront was then being used for purposes connected with shipping – a 'graveing place' being an area of waterfront where boats were beached to enable their hulls to be cleaned and repaired.

The first proposals for the wholesale development of the marsh appeared on 1 March 1669 in the minutes of the Proceedings of the Common Council. There it was recorded that 'upon consideration of the City's engagements and the better discharging of debts and considerable sums owing --- surveyors of the city-land, to view the void ground about the Marsh --- to consider what number of plots may be conveniently allowed [and] to lease the same for the uniform building of houses'.

In order to develop the marsh it was necessary to raise the level of the land by up to two to three metres to prevent flooding and to provide a firm base on which construction could take place. Various excavations and other incidents of ground disturbance across the marsh have shown that during the latter half of the 17th century considerable quantities of industrial waste and domestic rubbish were systematically dumped over the surface of the marsh. This dumping was almost certainly carried out at the request and under the supervision of the city Corporation.

At nos. 1 to 2 King Street the upper two metres of stratigraphy comprised landfill dumps of 17th- and 18th-century date, mainly in the form of domestic fuel waste (Williams 2003, 117), while excavations in 1999 towards the centre of the marsh showed that approximately two and a half metres of black cindery deposits had been dumped on the marsh prior to development. The nature of the deposits suggest that the material mostly derived from industrial waste as it consisted of between 25% and 40% of spent coal cinders with only small quantities of domestic waste such as

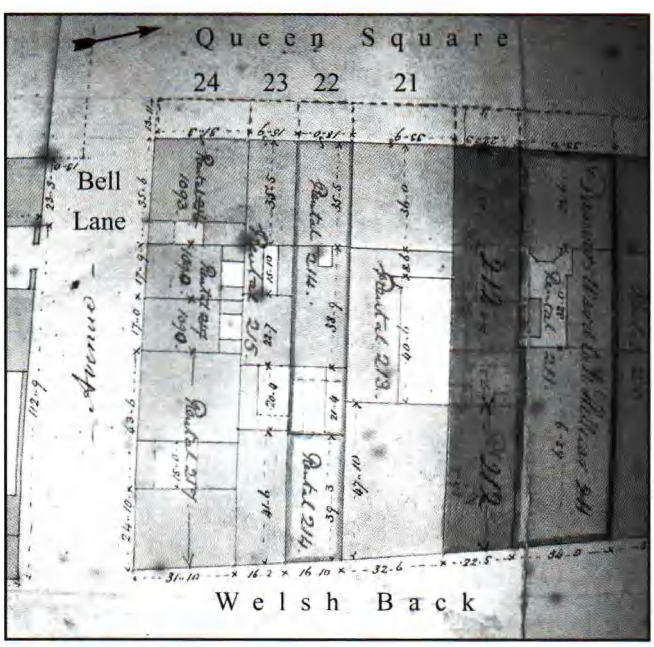


Fig.5 Premises on the east side of Queen Square, c1825.

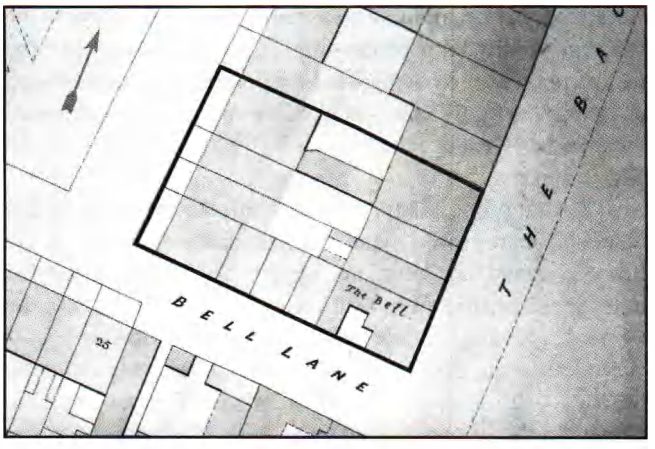


Fig.6 Ashmead's survey, 1854.

animal bone, oyster shell, glass and ceramics. Based on the 1999 findings it has been suggested that approximately 250,000 tonnes of waste was dumped over 100,000 square metres of the marsh prior to development taking place (BaRAS 1999).

Mowl (1991, 10-15) takes the view that the development of the marsh was a plan by the city council to raise funds at a time of limited finances and Mowl states that the original idea was John Romsey's, the Town Clerk, who with the mayor, John Bachelor, put the suggestion to the council of selling building plots on the marsh and charging ground rent. This suggestion was put forward on 23 October 1699 at the same time as a request was made by Dr John Reade for permission to build a house on the marsh. Only the request by Dr Reade is minuted in the Proceedings of the Common Council together with his belief that other citizens wished to do the same (BRO 04264). Three days later a lease of land was granted to Dr Reade with the condition that no rent was required until 1701 in order to allow time for the construction of the house. The council appointed a committee to 'lay out the ground for building sites, and to treat for their disposal' (Latimer 1900, 490).

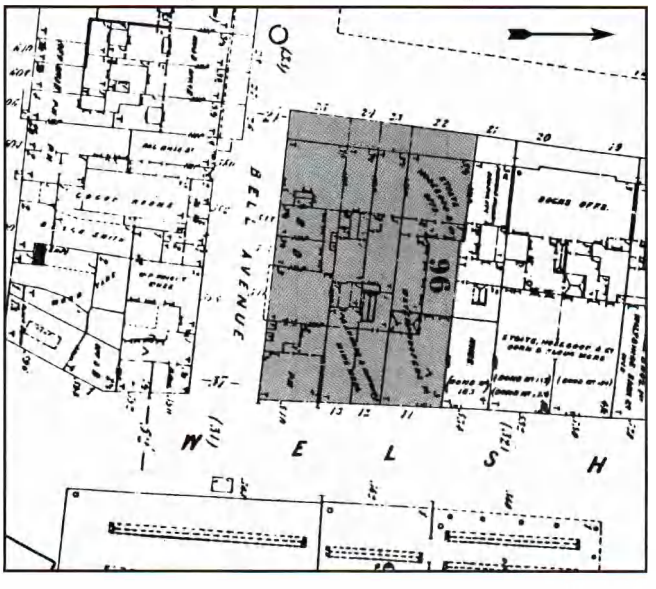


Fig.7 Goad's survey, 1887.

The plot leased in 1699 was 40 feet wide (12.2 metres) and 105 feet (32 metres) in length. All the plots in Queen Square were to be of a similar size with an average width of 40 feet (which actually varied between 30 and 50 feet) and a length of well over 100 feet. The plots usually extended rearwards to a back street. Plots were leased out, the details of each lease being recorded in the extensive series of records known as Bargain Books (BRO 04335(1-26)). Summaries were recorded in the City Rental books (BRO 04043(1-3)), 09082(1)). Land Tax returns and street directories record the occupiers of the premises, who in many instances were not the actual lessees.

The layout of Queen Square, together with that of Prince Street which ran parallel to the Frome, was planned by the city surveyor and when the land was leased conditions were made, as in London after the Great Fire, for the uniform building of the houses. Brick was extensively used for the first time in the city and when completed the proportions of the houses and their relation to the central square with its avenues of trees, made it a magnificent sight. Here, in due course, were erected an imposing Custom's House and Excise Office and in 1781 a private residence became the mayor's Mansion House. With the exception of Lincoln's Inn Square in London, Queen Square was the largest in the kingdom (Lobel & Carus-Wilson 1975, 23).

By February 1700, the scheme was described as 'the Square now there building', although the first house was not completed until 1701 (Latimer 1893, 43). Early in 1700 leases for the south, west and east sides of the square were granted to prominent members of the city. One such was James Hollidge, sheriff and future mayor of Bristol, who purchased the bowling green lodge for £100 so that he could build several properties in the south-west area of the square (BRO 04043; Latimer 1900, 490). The south side of the square proved to be the most popular, almost all the properties along this side being leased out at this early date while only about nine properties along the west side and four on the east were leased (BRO 04043).

In 1709 further leases were granted with 18 plots being taken (BRO 04043). The positions of these plots are not recorded, but it is likely that this accounted for construction work on the remaining sites on the east and west sides and the beginning of construction on the north side. Millerd's map of *c*1715 shows the Square close to completion with buildings, including the Custom House, almost encompassing the site (Fig.3). Bell Lane was shown (at an incorrect angle), with a building at its north-east corner. The map also shows that there were one or two rows of trees and a fence line around a central, informal, grassed area. Despite the two early flourishes in the issuing of leases it was not until 1727 that all building work in the Square was completed after the remaining plots on the north side were leased in 1725 (Ison 1978, 144).

It is not clear when Welsh Back became a functioning quay although Millerd's map of *c*1715 refers to this stretch of river-bank as 'The Back'. In 1776 a market for provisions from Wales was constructed on The Back opposite King

Plate 1 Rowbotham's view across Queen Square, 1827 (BRSMG M2206).

Street from which Welsh Back derives its name (Lobel & Carus Wilson 1975, 24).

Development on the Welsh Back frontage of the site started at its south end at the junction with Bell Lane sometime between 1713 and 1715 and progressed northwards: no. 43 Welsh Back being built in 1732, no. 42 developed as a warehouse and lofts by 1793 and no. 41 being used as a warehouse by the 1820s.

Rocque' map of 1742 showed the front courts on the Square, but everything else was shaded with no differentiation between buildings and open spaces. Plumley's map of 1817 also failed to differentiate, but did mark the divisions between the various frontages (nos. 42/43 Welsh Back excepted), and the Queen Square property numbers (Fig.4). For details of the layouts of the various buildings and yards, the earliest plan is one of *c*1825 (Fig.5; BRO 04479(2), fol. 96b) and the earliest view of this part of Queen Square is a watercolour painted by Rowbotham in 1827 (Plate 1; BRSMG M2206).

Prior to 1775 there was no organised street numbering in Bristol, but in that year James Sketchley produced the first directory for the city, during the preparation for which he numbered premises in the principal thoroughfares. Queen Square was dealt with in a clockwise fashion, commencing with no. 1 at the Custom House in the centre of the north side. Welsh Back (previously named The Back) was numbered consecutively, commencing at its northern end at the junction with Baldwin Street. Following destruction of houses in the Square during the Bristol Riots of 1831, the original seven dwellings to the east of the Custom House were replaced by a terrace of nine houses. Eventually it became necessary to adjust the property numbers, and for the Custom House to sacrifice its number to the house next door. Thus, in about 1876 the numbers around most of the Square were all increased by one (*e.g.* no. 24, on the north corner of Bell Lane, then became no. 25).

Ashmead's survey of 1854 shows the properties in some detail (Fig.6; BRO 04080/Map) while Goad's insurance survey of 1887 records all the buildings, including outbuildings, and gives the names of some of the occupiers (Fig.7).

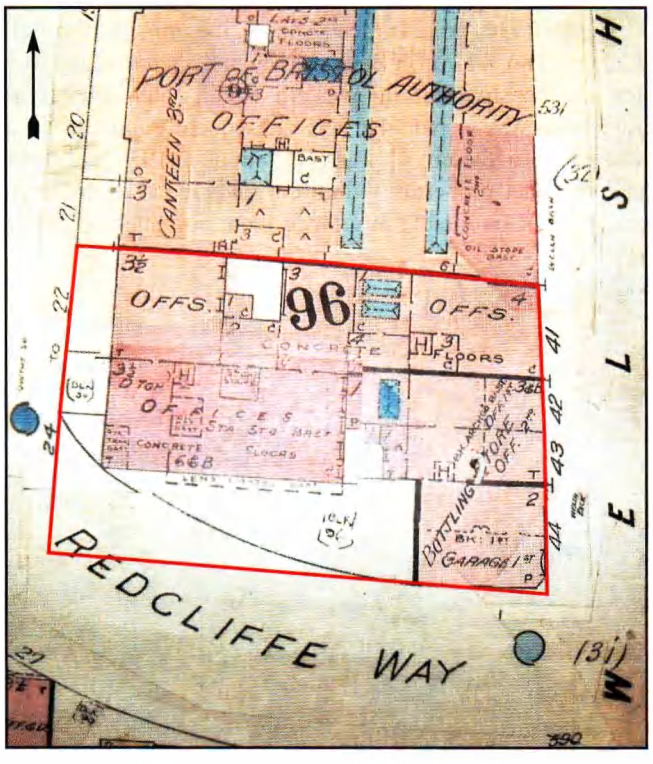


Fig.8 Goad's survey, corrected to c1961.

Plate 2 Properties in Bell Lane and Welsh Back viewed from Redcliffe Parade, 19th century.

A late 19th-century photograph looking towards Queen Square from Redcliffe Parade shows the upper storeys of the properties in Bell Lane and, to the extreme right, the southern end of Welsh Back (Plate 2; BRSMG 2305). Another, later, photograph is of the south-east angle of Queen Square, with the properties forming part of the study area on the left (Plate 3; Dening 1923, plate IV).

In the 1930s no. 24 Queen Square, the properties in Bell Lane, and no. 44 Welsh Back were demolished to make way for the construction of Western Road, later known as Redcliffe Way. No. 44 was subsequently rebuilt as a warehouse while no. 41 was also rebuilt in 1959 and these and the other properties within the study area are shown in some detail on Goad's insurance plan, corrected to *c*1961 (Fig.8).

Plate 3 The south-east angle of Queen Square, c1923.

THE EXCAVATION, BUILDING SURVEY AND WATCHING BRIEF

Note: True north is approximately 20 degrees west of the general north/south building line of the properties fronting Welsh Back. To avoid the use of long definitions of orientation in the site records and this report, site north is taken to mean a line parallel to this general north/south building line.

Objectives and Methodology

The archaeological work had the following key objectives:

1. To recover evidence for the development of Queen Square. Layers of dumped material were to be examined, particularly for artefacts which might be closely dated, together with any structures of this period.

2. To obtain evidence for the utilisation of the area before the late 17th century. Such evidence might comprise structures associated with the nearby waterfront or with the use of the marsh before the laying-out of Queen Square.

3. To study the environment of the marsh before the establishment of the Square. Samples were to be taken of suitable alluvial and immediately post-alluvial deposits for examination of the sediments and associated macro and microfossils.

4. To record by photography and a basic building survey the cellars at nos. 21 to 23 Queen Square (modern nos. 22 to 24) and at no. 41 Welsh Back (modern no. 44).

5. To record historic remains over the whole of the development area by means of an intensive watching brief during groundworks.

To enable these objectives to be achieved an area was selected for full excavation. This was located where preservation of the archaeological resource *in situ* could not be achieved and where the archaeology might be best preserved taking into account the presence of known 18th-century cellars and the results obtained from the evaluation trenches.

The excavation was carried out on the site of nos. 42 and 43 Welsh Back (modern no. 43) and on the northern part of no. 44 Welsh Back (modern number 42). An area suspected to contain undisturbed late 17th-/early 18th-century dumped deposits was also excavated to the west of no. 42 Welsh Back. The excavation measured 13 metres north/south by 12 metres east/west with an extension to the west measuring 5 metres north/south by 3 metres east/west and covered an area of approximately 171 square metres.

Initially the entire area of the excavation was stripped of modern overburden and the cellars emptied of backfill using a mechanical excavator. Machine excavation stopped at the top of the late 17th-/early 18th-century dumped material and the surface of the cellar floors. Thereafter, in selected areas (Areas 1 to 4), the post-medieval and early modern archaeological features and deposits were excavated by hand down to the natural alluvium.

During the excavation and watching brief all archaeological features, cuts, fills and layers were recorded using a continuous numbered recording system. No separate feature or structure numbers were used. The assignment of the context numbers was as follows:

Context Numbers	**Project Stage**
100 – 110	Evaluation Trench 1, 1994
200 – 209	Evaluation Trench 2, 1994
500 – 721	Excavation, 2002-2003
001 – 078	Watching Brief, 2005-2006

The evaluation carried out in 1994 was assigned the Bristol City Museum and Art Gallery accession number BRSMG 37/1994, the excavation in 2002 the accession number BRSMG 2002/43 and the watching brief and building survey between 2005 and 2006 the accession number 2005/74. All the paper archive and finds bear these accession numbers and have been deposited in the Archaeology Department of Bristol City Museum. The excavation has been given the Bristol Urban Archaeological Database event record no. 3930 and the watching brief and building survey the no. 4245.

The Site Phasing

The phasing of the excavation is based on an analysis of the stratigraphy, the physical sequence of structures and features, and a study of the finds.

Period I: Pre late 17th century.
Alluvial deposition and pre-development ground surface.

Period II: Late 17th century to *c*1709.
The dumping of domestic and industrial waste to raise the level of the marsh by up to three metres before the construction of Queen Square began in the early 18th century.

Period III: *c*1709 to *c*1715.
The construction of nos. 21 to 24 Queen Square began in about 1709. The Bell Lane properties appear to have been built at the same time. The area of the excavation was used as back yards or gardens to the rear of the Queen Square houses.

Period IV: *c*1715 to *c*1732.
The continuing occupation of the Queen Square and Bell Lane properties. The construction and occupation of no. 44 Welsh Back (the Bell public house) with the continuing use of the adjoining land as back yards or gardens.

Period V: *c*1732 to *c*1793.
The continuing occupation of the Queen Square and Bell Lane properties and no. 44 Welsh Back. The construction and occupation of no. 43 Welsh Back and the use of the adjoining land as a back yard or garden.

Period VI: *c*1793 to 1854.
The continuing occupation of the Queen Square and Bell Lane properties and nos. 44 and 43 Welsh Back. The construction and occupation of no. 42 Welsh Back in about 1793 and the construction and occupation of no. 41 Welsh Back by 1825.

Period VII: 1854 to 2002.
The continuing occupation of the Queen Square and Bell Lane properties and nos. 44, 43, 42 and 41 Welsh Back. The amalgamation of nos. 42 and 43 Welsh Back in about 1854. The demolition of no. 24 Queen Square, the Bell Lane properties and no. 44 Welsh Back in the 1930s, with the rebuilding of no. 44 Welsh Back by 1936. The demolition of nos. 21 to 23 Queen Square and no. 41 Welsh Back (except all or parts of their cellars) and their rebuilding in 1959. Continuing occupation and alterations to the remaining properties until their demolition.

The number of contexts, excluding those from the evaluation trenches, ascribed to each site period is as follows:
Period I: 8; Period II: 117; Period III: 3; Period IV: 46; Period V: 13; Period VI: 7; Period VII: 16.

The Results of the Evaluation, Excavation, Building Survey and Watching Brief

The results gained from the evaluation trenches are included within the following report where appropriate.

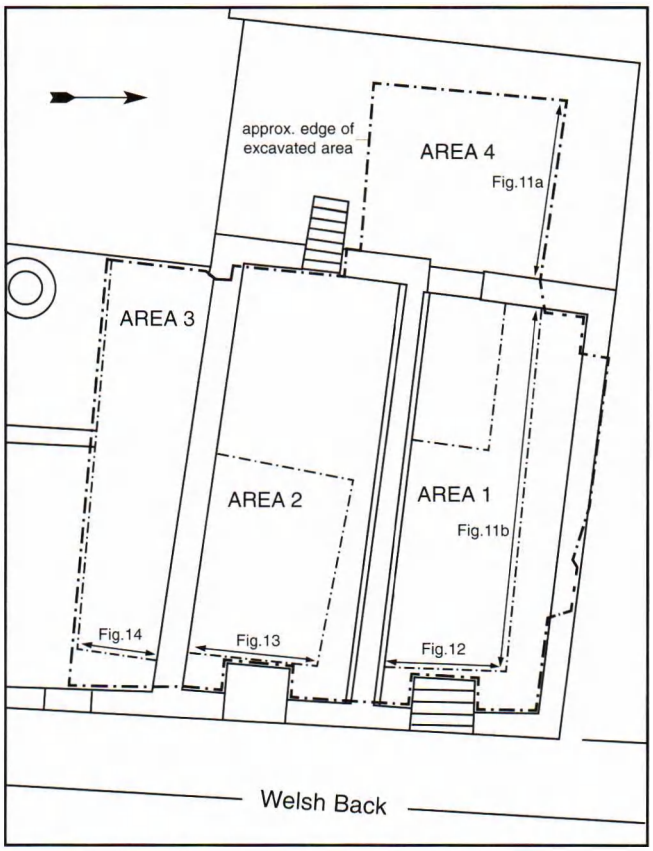


Fig.9 Plan showing the area of the excavation and the location of the illustrated sections, scale 1:200.

The numbers in brackets ( ) are the site context numbers. Where two or more numbers are given thus – 500/501 – it shows that more than one number had been assigned to the same context.

Measurements are given in metres, abbreviated to 'm'.

Figure 9 shows the extent of the excavated area and also provides a key to the location of the section drawings (Figs.11-14) illustrated in this report.

Period I

The Pre-Late 17th-Century Ground Surface Overlying Natural

(Figs.10-14; Plates 4-6)

The natural underlying the site was a plastic dark grey alluvial clay containing some organic matter with its surface at between 6.9m and 7m OD (598, 650, 665, 691), which is around the present height of Mean High Water Spring tides of 6.9m OD. Some 0.2m below this was a greyish brown clay containing patches of organic matter, including recognisable plant remains (684), and this overlay light brownish grey clay with occasional large root channels lined with black organic matter (685). The natural was excavated to a maximum depth of 6.60m OD below the cellar floor of no. 42 Welsh Back.

A monolith sample was taken through the lowest Period II deposits to a depth of 0.15m into the surface of the natural

Plate 4 Looking east: the cellar floors of nos. 42-44 Welsh Back.

alluvium (684) against the west facing section below the cellar floor of no. 43 Welsh Back and some 0.9m west of the present street frontage. An examination of the diatoms and pollen from the alluvial clay in this sample confirms that the pre-late 17th-century ground surface was part of a marsh where pools of water would have been subjected to periodic drying out between flooding caused by high tides. The diatoms present reflect the influence of tidal water with a large component of marine and brackish water species. Freshwater diatoms were present in low percentages but these species are typical of those associated with a marsh surface as they have wide salinity tolerances. The pollen present in the marsh sediments suggests that the marsh had been reclaimed by the late 17th century and was either waste land or used as poor quality grazing which was subject to occasional inundation at particularly high tides.

A number of ruts caused by the wheels of carts or the runners of sleds could be seen in the surface of the alluvium (693, 716-721). The ruts were about 80mm wide and, where two sets of parallel ruts occurred, they were 1.5m apart. The ruts were filled with red-brown sandy silt (694). The ruts could not be dated. They may have been the result of activity on the marsh at some time before it was sealed by dumped material in the late 17th century, or they may have

Plate 5 Area 2: looking east showing the surface of the alluvial clay 691 (scales 1m & 2m).

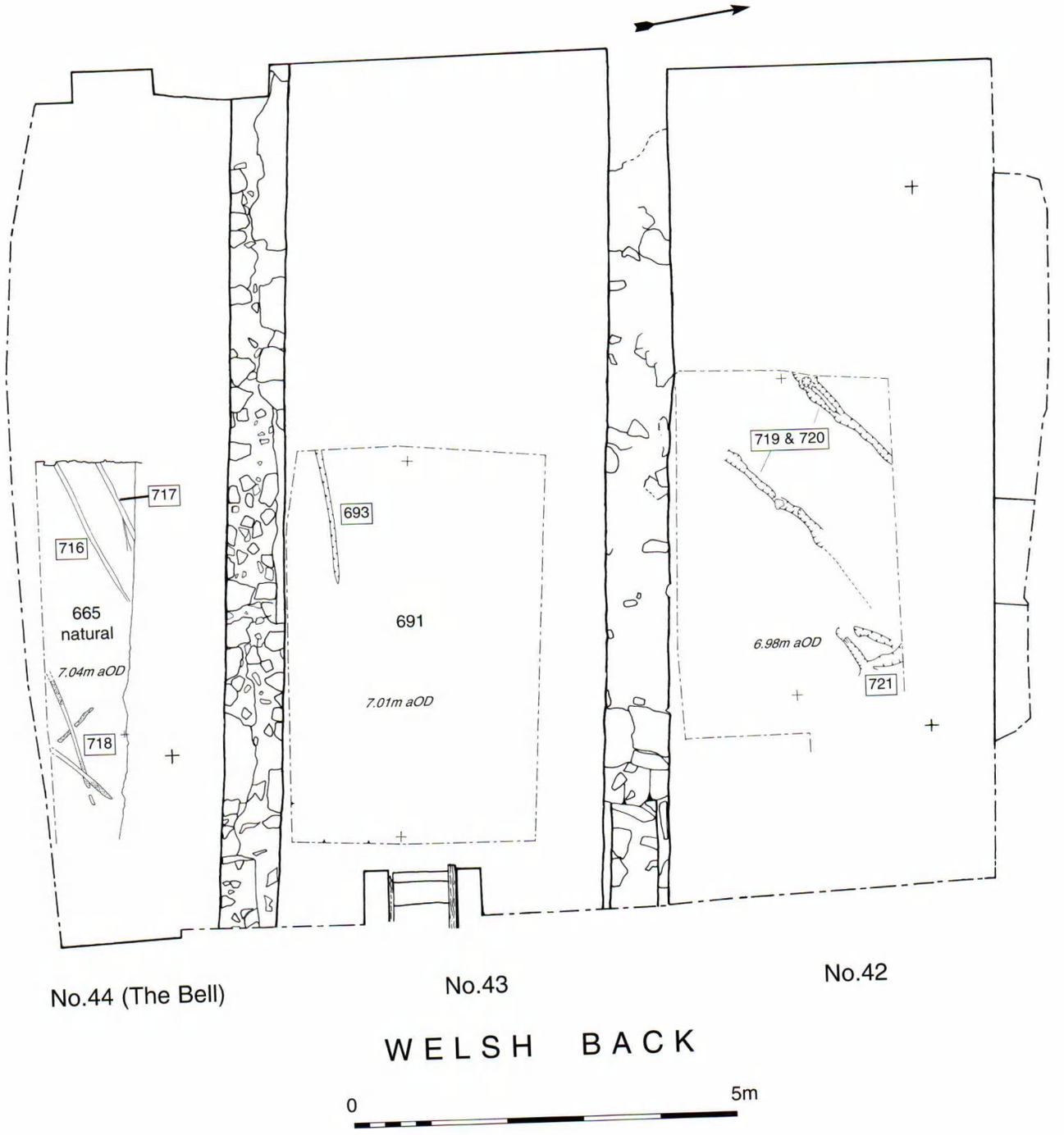


Fig.10 Period 1: wheel or sledge ruts.

Plate 6 Area 2: west-facing section through the alluvial clay 691 and overlying Period II deposits (scale 1m).

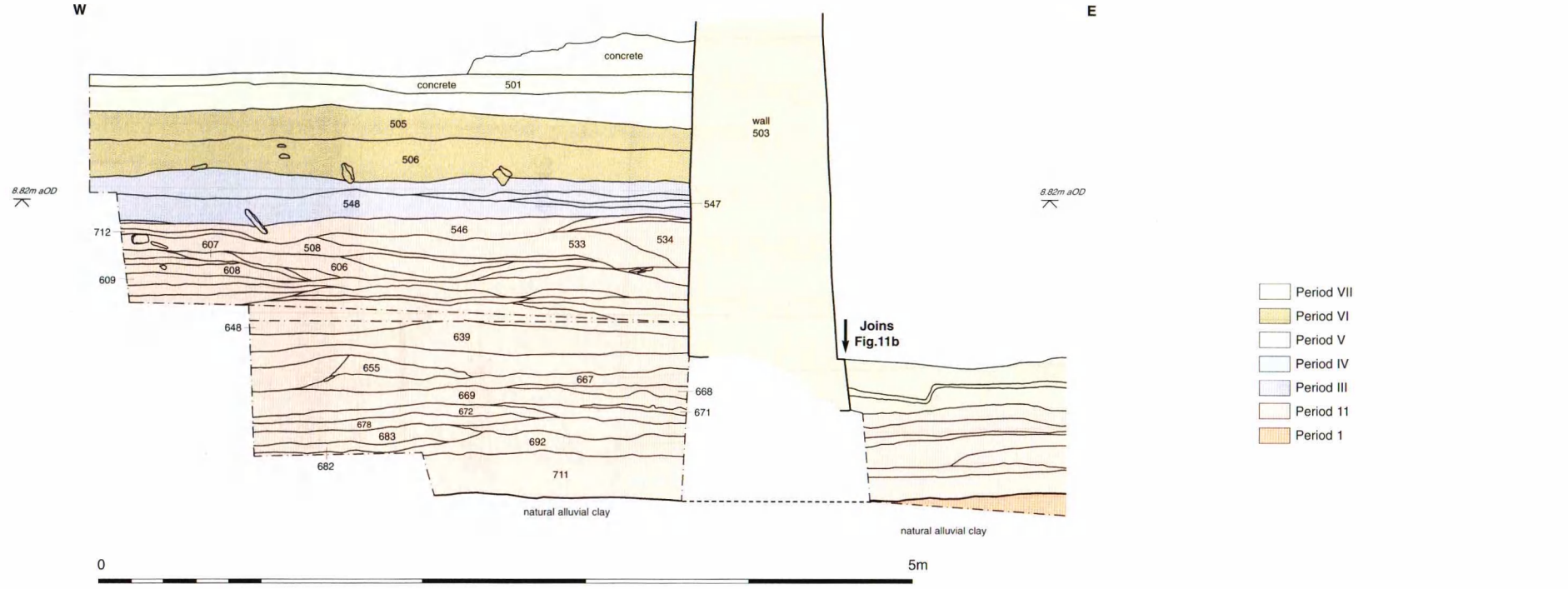


Fig.11a Area 1: south-facing section.

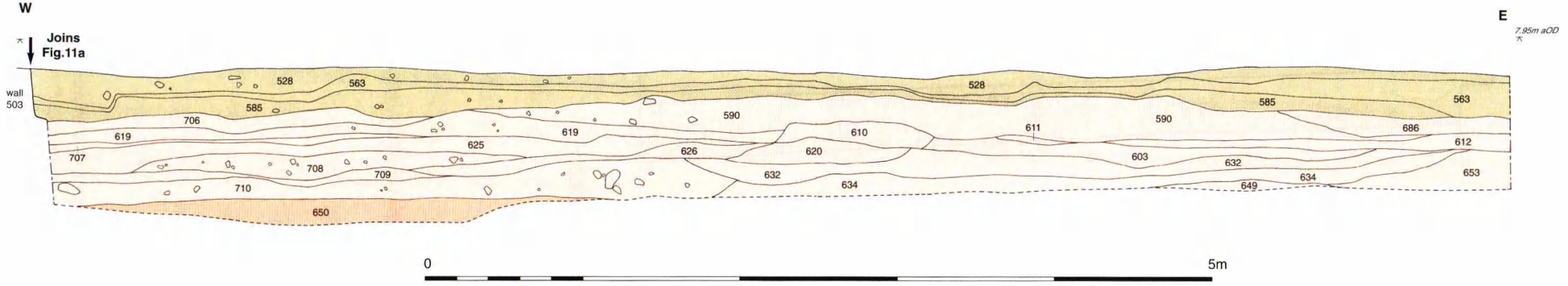


Fig.11b Area 1: south-facing section (continued).

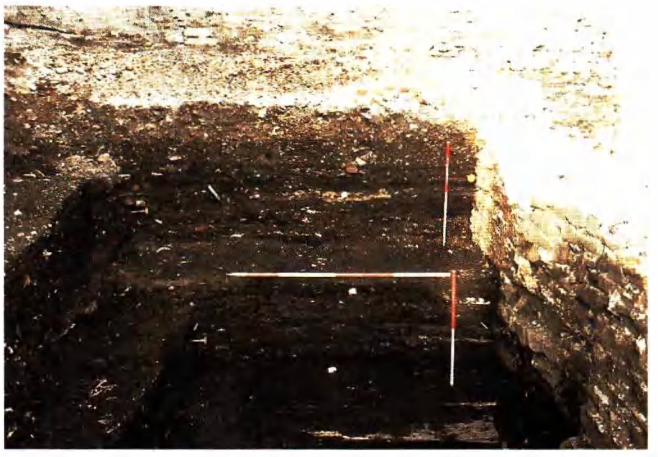


Plate 7 Area 4: south-facing section through Period II deposits (scales 1m & 2m).

been left by carts or sleds depositing the dumped material itself at the beginning of the Period II use of the site. The nature of 694 was identical to the landfill deposits.

Period II

Late 17th century to c1709

(Figs.11-14; Plates 7 & 8)

During Period II the site lay within the area identified by the Corporation as needing to be raised above the surface of the former marsh in order that the construction of Queen Square could take place well above the flood level of the adjoining rivers. Although excavations have been carried out elsewhere through the thick deposits dumped over the marsh at this time, a number of questions concerning the process of land reclamation had yet to be resolved. The most important of these were when did the dumping commence, how long did it take to raise the land to the required level and what type and quantity of materials were used in this process?

The first proposals for the development of the marsh were put forward in 1669 and it has been assumed that the dumping of material commenced shortly afterwards. The dumps encountered on the Welsh Back site contained large quantities of pottery although this can only be assigned a fairly broad production date ranging from the late 17th century to the early 18th century. However, the clay tobacco pipes from these deposits can be more closely dated.

The earliest dump deposit found on the site (634), which had been laid directly over the natural alluvial clay (650), contained a clay tobacco pipe bowl with the initials 'RT' stamped into the heel. Based on the form of the bowl and the style of the mark the pipe may be attributed to the Bristol pipe maker Robert Tippet II. Tippet did not take his freedom to work as a pipe maker in the city until 1678.

A dump deposit (580) towards the middle of the sequence at a height of 7.71m OD contained a clay pipe bowl with the two line mark 'IOHN/MASE' in a circle on the side of the bowl. This pipe was made by John Macey I who obtained his freedom to work as a pipe maker in the city in April 1700.

A further dump deposit (570) quite high in the sequence at about 8m OD contained a clay pipe bowl with the two line mark 'I/PIERCE' in a circle on the side of the bowl. This pipe was made by John Pearce (Pierce) I who did not take his freedom to work as a pipe maker in the city until November 1696.

Based on the clay pipe evidence it is clear that context 634 could not have been deposited before 1678, context 580 before 1700 and context 570 before 1696. This suggests that at Welsh Back, at least, dumping over the surface of the marsh began no earlier than 1678 and did not cease until after 1700.

The rubbish was dumped to a depth of up to 1.7m and the whole of the dump consisted of many interleaving deposits. The individual deposits varied in thickness from a few millimetres to about a quarter of a metre. Some covered very small areas while others extended across the whole area of the excavation.

The types of materials used and their sources seem to be very varied. Analysis of the deposits encountered at Welsh Back show that they were formed from domestic and industrial waste, building rubble and possibly spilt or spoilt cargoes from the nearby quays. However, the dumps often

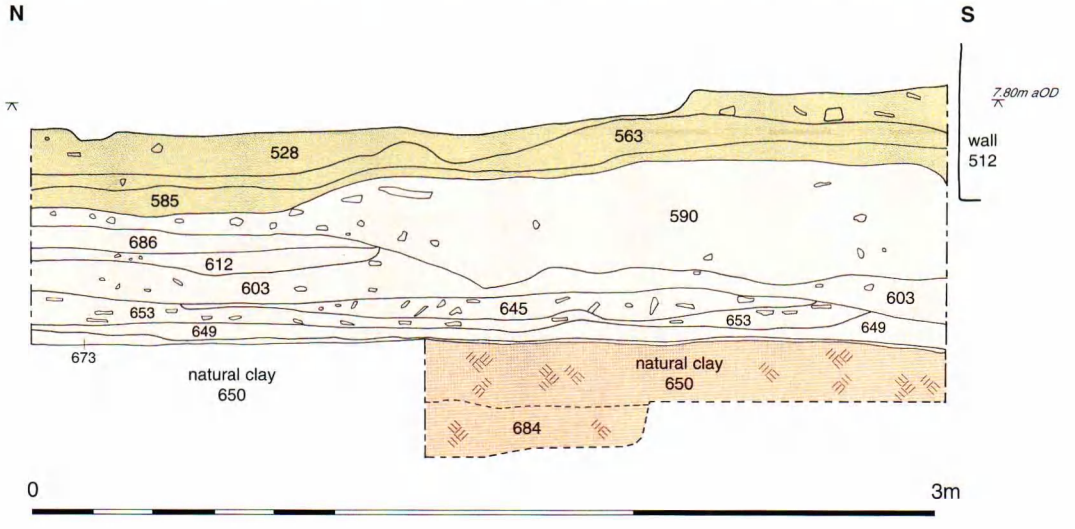


Fig.12 Area 1: west-facing section.

Plate 8 Area 2: north-facing section through Period II deposits below no. 43 Welsh Back (scales 1m & 2m).

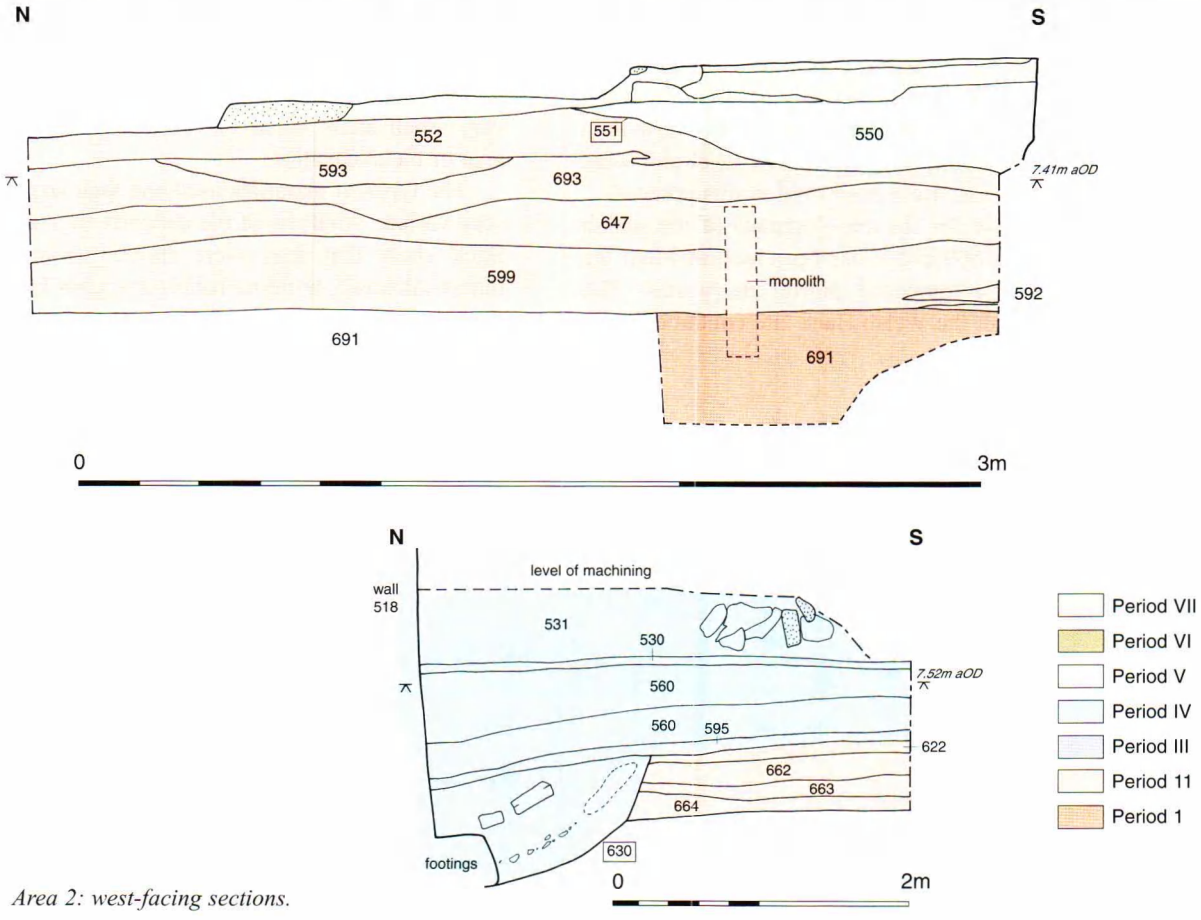
seem to be a mixture of domestic and industrial debris. Those containing large quantities of pottery, clay tobacco pipes, glass, animal bone and oyster shell indicate a domestic source, but they also produced slag (568, 603, 639, 681), fragments of a clay tobacco pipe kiln (552, 568), vitrified brick from a kiln (618), leather shoes from a cobbler's workshop or quantities of ash, clinker and coal (603, 605, 625, 669, 672, 692), although the latter ingredients could have had either a domestic or an industrial origin.

Those dump deposits which, from the rubbish they contained, were almost certainly of a domestic nature include 533, 584, 599, 601, 602, 609, 612, 626, 631, 634, 642, 654, 683 and 692. Those which appear to have an entirely industrial origin include 652, 667, 668, 678 and 686.

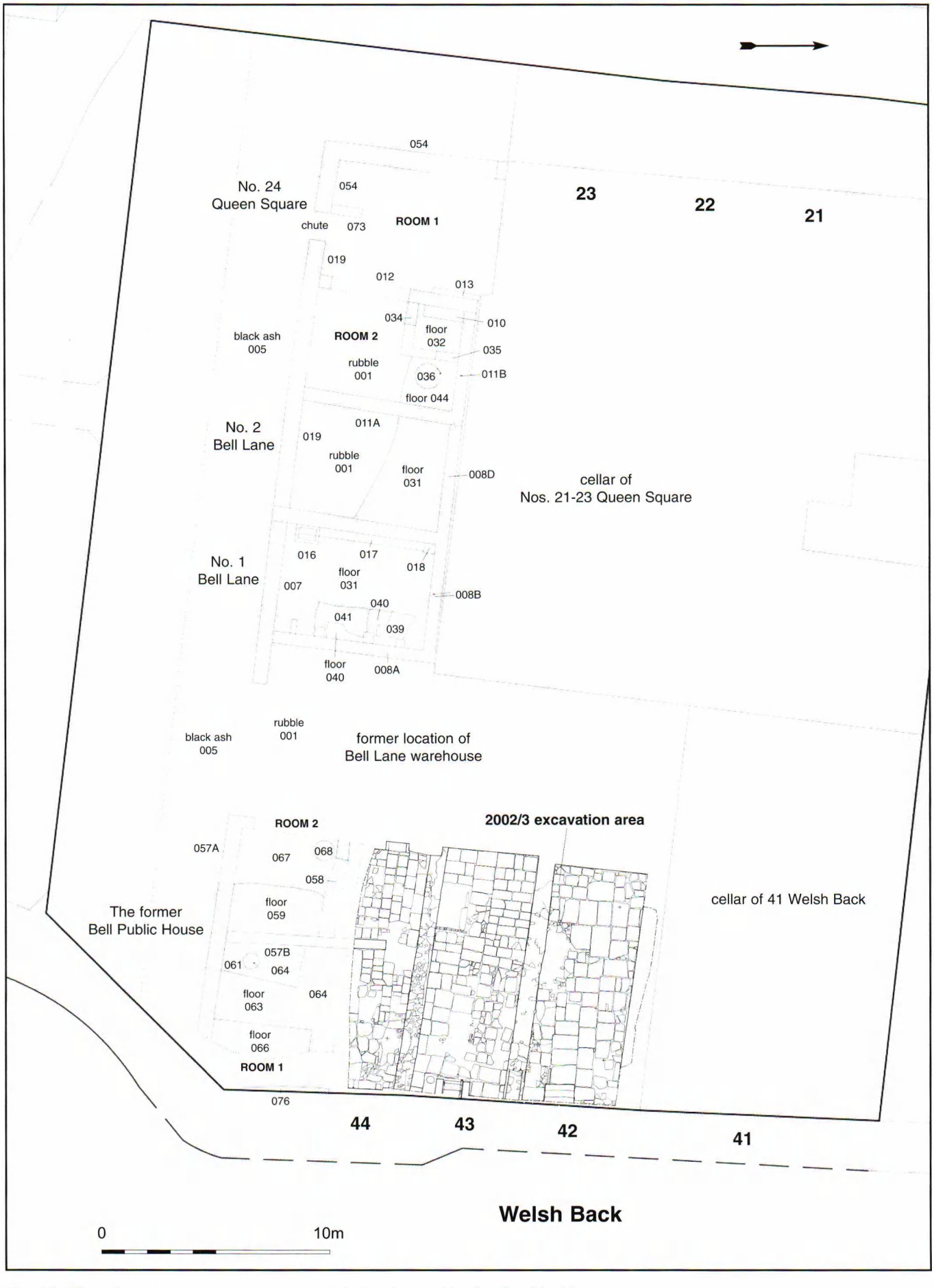
A number of dump deposits, especially those lower down in the sequence and therefore more likely to be subjected to waterlogging and the preservation of organic matter, consisted almost entirely of what appeared to be waste from stables or other animal husbandry and included straw and animal droppings (632, 643, 651, 658, 659, 673). Other waterlogged deposits contained organic material including wood (599, 603, 634, 642, 681, 706, 709, 711) and leather (567, 590, 594, 599, 603, 618, 619, 620, 632, 642, 651, 681, 683, 692).

One waterlogged deposit towards the bottom of the sequence and just above the surface of the alluvium consisted of large quantities of grape pips and stalks and partially decayed fleshy fruits within an orange-brown silty clay (682). This covered an area measuring at least 1.5m by 2m and was up to 0.10m thick. It is possible that the grapes were the remains of an imported cargo unloaded at a nearby quay which had either been spilt or become spoilt in transit.

Some dump deposits appear to be debris from demolished buildings. These were composed entirely of mortar (674-676) or roof slates (615) while other deposits included large quantities of roof slates (590, 600, 603, 605, 612, 618, 635, 642, 645, 652, 679, 681), Pennant sandstone roof tiles (599, 600, 624) and ceramic roof tiles (508, 546, 594, 599, 612, 617, 620, 626, 634, 641). Some deposits



Figs.13 & 14 Area 2: west-facing sections.



Figs.15 Plan of structures and features revealed during the watching brief and building survey.

consisted of a mixture of stone and brick rubble, mortar and plaster (508, 569, 590, 594, 604, 611, 618, 627, 645, 649, 653, 655, 666, 670, 680).

Towards the south end of the site the dump deposits had been cut by an oval feature measuring about 0.55m by 1m (591). This had vertical sides and was filled with dark brown-grey clayey silt containing clinker, charcoal flecks and white mortar fragments (592), and was interpreted as a possible well although it had no stone or brick lining. It pre-dated wall 518 (Period IV) which had been built over its backfill.

Period III
c1709 to c1715
(Figs.15 & 11)

In 1709 leases were granted on the properties fronting Queen Square. It is assumed that construction of nos. 21 to 24 Queen Square began shortly after and that the dumping of make-up deposits had stopped. Apart from no. 24 Queen Square, behind which were constructed the Bell Lane houses and warehouse, the new Queen Square properties had back yards or back gardens extending east to what was to become Welsh Back.

Building recording in nos. 21 to 23 Queen Square showed that there had been three large cellars contemporary with the construction of the houses. The cellar walls were built of Pennant sandstone rubble bonded with pink and grey lime mortar. They had vaulted roofs 1.8m high with the vaults oriented east/west. Observation of trenches dug by contractors through the floors of the cellars showed that they had originally been of Pennant slabs and had been laid directly on the Period II dump deposits.

During the watching brief the foundations and cellars of no. 24 Queen Square were exposed. The walls of the house were built of Pennant sandstone bonded with a grey mortar (011A, 011B, 012, 019, 054), the main front wall being 0.75m wide. A chute, formed partly by wall 073, entered cellar Room 1 from Bell Lane, while part of the vaulted roof (013) remained in the north-east corner. Wall 012 divided the two cellars. Cellar Room 2 contained a Pennant stone floor surface (044), two internal Pennant stone walls (034, 035), an un-mortared stone well (036), four small brick walls (023, 024, 037, 038) and a vaulted roof oriented east/west (010). Well 036, which was covered by floor slabs 044, was 0.85m in diameter internally and had a depth of 7.2m of which 6.5m contained water. Walls 035 and 034 appeared to be later in date than the construction of no. 24 Queen Square and formed a small room in the north-west corner of the cellar, within which were four brick wall (023, 024, 037, 038) that may have formed partitions or the bases for shelves.

Also during the watching brief it was noted that nos. 1 and 2 Bell Lane had been built at the same time as no. 24 Queen Square, as they were found to share the same walls 019, 011A and, probably, 008D/011B. Their cellars had been floored with Pennant slabs (031). In no. 1 Bell Lane the floor had been patched with pitched stones (039) and, at some stage, a brick floor (040) had been laid on mortar (041) over the original floor 031.

The remains of the Bell Lane warehouse, which was to the east of no. 1 Bell Lane, had been badly damaged, only part of its front wall having survived (007). However, it had obviously been built at the same time as the other properties in Bell Lane as they shared the same front wall.

Little evidence was uncovered during the excavation for this period of occupation, the majority of it having been removed by the subsequent construction of nos.42-44 Welsh Back. However, in the area to the west of the Welsh Back buildings, and immediately overlying the latest Period II dump deposits (508, 546), was a 0.18m thick layer of brown sandy-silt containing black ash and some white mortar flecks (507/547/548). This produced 18th-century pottery and a clay tobacco pipe bowl with the three line mark 'I/HAR/VEY' on the side of bowl. The pipe was made by John Harvey I who took his freedom to work as a pipe maker in Bristol in January 1706. The deposit therefore cannot pre-date 1706 and it seems likely that it was a garden soil associated with one of the Queen Square properties. The pottery and clay pipe evidence indicates that context 507/547/548 may have continued in use into the late 18th century.

Period IV
c1715 to c1732
(Figs.15, 16 & 11-14; Plate 9)

Documentary evidence shows that sometime between 1713 and 1715 a building had been constructed to the east of the properties in Bell Lane. Later known as no. 44 Welsh Back and fronting Welsh Back to the east and Bell Lane to the south it was originally used as a house or 'tenement'. From 1750 it was occupied by a succession of licensed victuallers and from at least 1832 it was a public house 'called or known by the Name or Sign of the Bell' with a warehouse and lofts adjoining.

Only the northern part of this property was excavated, its southern portion being recorded during the watching brief.

The north wall of no. 44, which survived to a maximum height of 7.92m OD following the demolition of the building in 2002, was about 0.45m wide and was constructed of Pennant sandstone bonded with a grey lime mortar (518). It had been set in foundation trench 587/630/695 which was up to 0.45m wide and had been taken down to a depth of 7.70m OD (Plate 9). Thus the walls of no. 44 were founded on the Period II dumped deposits and not on the natural alluvium. The fill of the foundation trench consisted of a grey-brown clay similar to the alluvium underlying the site (589/629/696). Wall 518 abutted the west wall (526) of the building.

The east (522), west (526) and south (057A) walls of no. 44 were of a similar construction to wall 518 and the south wall was about 0.7m wide. There was a construction trench (689) for wall 526 on its east side which was filled with dark brown clayey silt (690). A recess 0.4m deep and 1m wide in the west wall may have been the site of steps leading down

Fig.16 Periods III to IV: excavated features.

to the cellar although this had been blocked by a brick wall (527) probably in the late 19th century (Period VII).

The cellar of no. 44 had apparently originally been floored with a compacted white mortar surface (596) which had been laid on make-up deposits 566 and 568. This mortar floor had been replaced on at least two occasions by floors composed of creamy white mortar (574) and grey mortar (564) which had been separated from the earlier floor and from each other by deposits 578, 595/575 and 633. These floors and deposits contained pottery and clay tobacco pipes dating to the early 18th century.

Above mortar floor 564 were a series of make-up deposits of clinker, mortar, sand and clay (549, 560, 561, 565, 580, 581, 582, 064) on which grey mortar had been laid (530, 067) as a bedding for a floor made of large Pennant slabs – some measuring as much as 0.95m by 0.45m – with its surface at around 7.72m OD (515, 059, 066, 075). It is not clear when floor 515 had been laid although one of the deposits (554) below it contained clay tobacco pipes dating from the early to mid 19th century suggesting that at least part of floor had been repaired or re-laid at that time (Period VI). It had certainly been patched with concrete in the 20th century 063 (Period VII). However, in the north-east corner of the cellar of no. 44 a small area of Pennant sandstone slab

Plate 9 Area 3: looking east showing Period IV wall 518 and foundation trench 587/630/695 cut through the Period II deposits (scales 1m & 2m).

flooring (520) overlay floor 515 and was separated from it by a thin deposit of grey ash and mortar (531) containing pottery and clay tobacco pipes probably dating no later than the mid 18th century, suggesting that floor 515 may have been re-laid on a number of occasions.

Floor 515 abutted a north/south partition wall 0.45m wide which was constructed of Pennant sandstone bonded with a light grey lime mortar (519/057B). It ended 1.5m short of the east/west wall 518 with a length of timber which may have been part of a door frame (579). There was a narrow construction trench (687/704) for wall 519/057B which was filled with a brown clayey silt and stone rubble (688/705).

An internal east/west wall (058), 0.65m wide and abutting wall 519/057B further sub-divided the cellar. To the south of wall 058 was a brick-lined well (068) back-filled with concrete. To the east of wall 519/057B was a circular-shaped brick structure 0.75m in diameter, 0.5m deep and with a Pennant stone base (061). The purpose of this structure is unclear although it may have been used as a sump to drain the cellar.

Until the construction of no. 43 Welsh Back in about 1732 (see Period V) the land to the north of no. 44 was still used as the gardens or backyards of nos. 23 and 24 Queen Square.

Period V
***c*1732 to *c*1793**
(Figs.16 & 11-14)

Documentary evidence shows that a 'messuage or tenement and buildings behind the same' had been constructed in the plot to the rear of no. 23 Queen Square by February 1732 although it is not clear if the property was fronting Welsh Back. The tenement was mentioned again in 1735 but it was not until 1762 that it becomes clear from the documents that a workshop with lofts above had definitely been built on the site of what was later to become no. 43 Welsh Back.

The north wall of no. 43 was about 0.85m wide and was constructed of Pennant sandstone bonded with a light grey lime-rich mortar (512). There was no evidence of a foundation trench for this wall. Instead the dump deposits had been removed over the whole area of the building down to the level of the base of the wall at 7.45m OD. Wall 512 survived to a maximum height of 9.18m OD following the demolition of the building in 2002.

The north wall (518) of no. 44 Welsh Back had been re-used as the south wall of no. 43 when it had been re-faced, partly in brick, on its north side (514). A construction trench (551) had been dug against the north side of wall 518 in order that the re-facing could be carried out. The fill of the construction cut (550) contained pottery and clay tobacco pipes dating to the early 18th century, suggesting that no. 43 Welsh Back had been built by 1732 when it first appeared in the documents.

The west (524) and east (521) walls of no. 43 were of a similar construction to wall 512 although their widths could not be determined as they extended outside the excavated area. A recess in wall 521 contained a flight of stone steps between walls 0.3m wide (517) which gave access from the cellar to Welsh Back. A similar recess in the centre of the west wall (524) contained a flight of steps (525) leading out of the cellar to the rear of the property.

The cellar of no. 43 had been floored with large Pennant slabs – some measuring as much as 0.98m by 0.80m – set in mortar, the surface of the floor being at around 7.85m OD (513).

Until the construction of no. 42 Welsh Back in about 1793 (see Period VI) the land to the north of no. 43 was still used as the garden or backyard of no. 22 Queen Square.

Period VI
***c*1793 to 1854**
(Figs.16 & 11-14)

Documentary evidence shows that 'a warehouse and lofts' had been built behind no. 22 Queen Square on the Welsh Back frontage by 1793. This was later numbered 42 Welsh Back. The site of no. 41 Welsh Back initially formed part of no. 21 Queen Square which was described in 1735 as the 'Mansion House Warehouse Lofts Coachhouse Stable Outhouses and Premises with their Appurts' and it is not clear from this description whether there was any building on the Welsh Back frontage. However, by about 1825 a single block is shown as having been built at no. 41 Welsh Back.

The north wall of no. 42 was at least 0.7m wide (510) although its full width could not be determined as it was immediately adjacent to the standing wall (509) of a modern office building. It was constructed of Pennant sandstone

bonded with a dark grey lime-rich mortar. Excavation did not take place against the south face of this wall so the presence of a construction trench for it could not be determined. Wall 510 had been founded on the Period II dump deposits at a depth of 7.75m OD and it survived to a maximum height of 7.95m OD following the demolition of the building in 2002.

The north wall of no. 43 Welsh Back (512) formed the south wall of no. 42. The west (503) and east walls of no. 42 were of a similar construction to wall 510 although their widths could not be determined as they extended outside the excavated area.

Flights of stone steps led down into the cellar through the centre of the east wall (516) and in the south-west corner of the cellar through wall 503. The latter had been blocked during Period VII.

The cellar of no. 42 had been floored with large Pennant slabs (511) set in mortar (562), the surface of the floor being at around 7.85m OD. Three make-up layers of ash and cinder had been laid below the floor to a depth of 0.5m (528, 563, 585). The bottom of these coincided with the base of wall 503.

The cellar of no. 41 Welsh Back was recorded during the building survey but this had been largely rebuilt in 1959. However, part of the north wall of the cellar was constructed of Pennant sandstone bonded with a grey mortar and presumably belongs to the early 19th-century building.

At some time during this period of occupation of the site the Period III-V garden soils (507/547/548) between the Welsh Back and Queen Square properties were covered to a depth of up to 0.55m with deposits of ash and building debris (505, 506).

Period VII
***c*1854 to 2002**
(Figs.16 & 11-14)

In 1854 Mathew's directory carried a combined entry for nos. 42 and 43 Welsh Back, which housed Garrard and Bartram, importers of foreign wines and spirits. The histories of the two properties were thereafter combined and there was an opening knocked through wall 512 which connected the cellars of nos. 42 and 43. Wall 713 blocked the access steps through wall 503 in the south-west corner of the cellar of no. 42. Outside wall 503 the ground had been cut away (544) to allow the construction of blocking wall 713 and then the cut backfilled with grey-brown silt (557).

The upper make-up layer (528) below the cellar floor (513) of no. 43 Welsh Back contained a late 19th-century clay pipe indicating that the floor had been re-laid at that time.

West of, and outside, nos. 42 and 43 two pits had been dug through the Period II dump deposits. The earliest of these (540) measured 2.3m by 1.6m and was up to 0.35m deep. It had been filled with dark grey-brown sandy silt (555). Cutting pit 540 was another shallow pit (541) measuring 2.1m by 1m and 0.7m deep which had a similar fill (556) to the earlier pit.

Sealing these pits and overlying the Period VI deposit 505 was a layer of white lime mortar and rubble up to 0.2m thick (501).

The steps leading down into the cellar of no. 44 Welsh Back through wall 526 had been blocked by a brick wall (527) probably during the late 19th century.

No. 24 Queen Square, the Bell Lane properties and the Bell public house at no. 44 Welsh Back had been demolished by 1935 and by 1936 no. 44 Welsh Back had been replaced with a two-storey brick-built warehouse.

During the 1950s nos. 21 to 23 Queen Square and no. 41 Welsh Back were demolished apart from all or parts of their cellars and then rebuilt in 1959.

A layer of debris derived from the demolition of the buildings in 2002 sealed the excavation site (500).

HISTORIES OF THE PROPERTIES

By John Bryant

Introduction

During the leasing of the marsh, plots of various sizes were measured out, usually extending rearwards to a back street. The east row, or 'angle' ran back as far as the Back (now Welsh Back). Plots were leased out, the details of each lease being recorded in the extensive series of records known as Bargain Books (BRO 04335(1-26)). Summaries were recorded in the City Rental Books (BRO 04043(1-3), 09082(1)). Land Tax returns and street directories record the occupiers of the premises, who in many instances were not the actual lessees.

In the following account, in order to avoid confusion, the historic street numbers of the properties have been used.

The Individual Properties

The plot later occupied by 24 Queen Square (modern number 25) was granted by a lease dated 28 May 1709 to John Mann, a sailmaker. This measured 30 feet in the front to the Square and about 141 feet in depth and on it was to be built a mansion house in the manner directed (strict construction specifications were then listed). No 'meane sordid building' was to be erected on any of the ground.

Joseph Smith, a merchant, was granted the adjoining plot to the north a few weeks later, on 16 June 1709. With a frontage of 87 feet to the Square, it also had a depth of about 141 feet. A subsequent agreement of 8 November 1709 saw Smith divide the plot in three: 22 feet to the north to James Biggs, a gentleman; 33 feet in the centre to George Stephens, esquire; while 32 feet on the south was retained by Joseph Smith. These would later become nos. 20, 21 and 22/23 Queen Square (modern numbers 21 to 24).

The subsequent history of these plots is given below. Documentary references are not given but the sources from which these histories are compiled are listed under the Bibliography section at the end of the excavation report.

21 Queen Square

19 January 1735	Lease granted to Isaac Elton, merchant. The property, with a breadth of 33 feet on the Queen Square frontage, was described as 'All that the sd Mansion House Warehouse Lofts Coachhouse Stables Outhouses & Premises ...' with a yard or pavement between the mansion house and the back buildings.
1750	Renewal of lease granted to Isaac Elton, the premises being occupied by John Noble.
1764	Isaac Elton junior was in possession at the time of the renewal of the lease.
1779	Renewal of lease granted to Isaac Elton junior, the premises being occupied by John Fisher Weare. The property was described as 'Mansion House Warehouse Lofts Coachhouse Stables Outhouses & Yard'.
1820	Lease granted to George Weare Braikenridge.
c.1825	A plan showed the house as being 33 feet 9 inches on the Queen Square frontage and 36 feet long. Behind this was an L-shaped block. North of the block was an open yard, 40 feet 6 inches in length and about half the plot in width.
1825 & 1849	Lease granted to George Granger, a cooper.
1827	A watercolour shows a 3-storey building with four windows and an entrance south of centre.
1841	George Granger was resident with a son, two daughters and a family servant.
1862 & 1876	Lease granted to Emily and Amelia Granger, spinsters.
1884, 1900, 1923	Premises occupied by Stoate, Hosegood & Co., corn merchants.
1887	A survey recorded that in addition to its three principal floors the property possessed an attic storey and that the block south of the yard was of two storeys.
1891	Lease granted to William Hathaway.
1923	Described as 'another of the few all-stone fronts, with its rusticated ground floor storey'. The entrance piers and the wrought iron gates were described as 'straightforward in design' (Dening 1923, 39).
1930s to late 1950s	Occupied by Henry Hosegood & Son. By the late 1950s they were sharing with Hosegood Industries, millers.
1949	A plan indicated the whole property through from Queen Square to Welsh Back was a single, undivided unit.
1959	This building, together with 22 and 23 Queen Square and 41 Welsh Back, was redeveloped by Hosegood Industries as an office complex.
2004/5	The building was demolished.

22 Queen Square

February 1732	Occupied by one Morey, a mariner.
1735	Leased to the Reverend Mr. Coopey although in the occupation of Edward Willcocks, a merchant. The property was described as 'a messuage or tenement' and included a garden and appurtenances.
1750	Edward Willcocks renewed the lease.
1762	Occupied by Henry Jefferis, a sailmaker.
1764	Lease granted to Isaac Elton, the premises being occupied by Catherine Lancashire, a widow.
1779	Renewal of the lease granted to Isaac Elton, the premises being occupied by William Brown, a corn factor. The garden behind the house still existed.
1790	Occupied by one Concklin, a widow.
1793	Lease granted to David Evans, the premises being occupied by Hannah Hopkins, a widow. The main dwelling was described as 'a messuage, tenement or mansion house' while to the rear was 'a Warehouse and Lofts' occupied by Thomas Vaughan, a timber merchant. This is the earliest indication that the garden had been built over to become 42 Welsh Back (see below).
1806	Lease renewed by David Evans, the house being occupied by Noblett Ruddocke, a clerk, and the warehouse and lofts occupied by Grace and Cole, mealmen.
1820	Leases were granted to John Butter for the house on Queen Square and to John Harris, a corn factor, and George Wills, a grocer, the executors of John Davis, for 'a Warehouse and Lofts situate on the Back'.
c.1825	A plan showed the house as 18 feet wide on the Queen Square frontage and 35 feet 5 inches long. Behind lay a 38 foot 9 inches block with only a small yard or lightwell immediately at the back of the house. Further back again was a yard, 21 feet 4 inches long, with a narrow outbuilding along its northern edge.
1827	A watercolour shows a 3-storey, 2-window front to the house.
1831	Occupied by William Phillips, a timber factor, with an office at 41 Welsh Back.
1835	The two parts of the property were under a single lease again, granted to Henry Chidgey Quinton.
1841	Occupied by James Linton, a customs officer, with his wife Emma, six children and a nephew.
1848	Lease granted to William Miles, a banker, and others.
1866	John Hellicar was based in the building but was resident in Clifton.
1862 & 1876	Leases granted to George Garrard, a wine merchant.
1884	Occupied by John Garrard, a wine merchant.
1887	A survey showed that, apart from the house on Queen Square and the warehouse on Welsh Back, the site was occupied by single-storey structures.
1891	Leases granted to George Garrard's two spinster daughters: Alice Maud for the Queen Square house and Marianne Edith for the Welsh Back warehouse.
pre-1910	A plan of the entire plot survives (BRO 04479(2)).
early 1920s	Occupied by Lovell and Son, shipping contractors, and the Newfoundland and Labrador Fish Oil Company.
1923	Part of the front elevation was recorded as well as the brick and stone front court wall (Dening 1923, plate IV).
mid 1930s	Occupied by a manufacturers' agent.
1959	This building together with 21 and 23 Queen Square and 41 Welsh Back were redeveloped by Hosegood Industries as an office complex.

23 Queen Square

February 1732	Lease granted to Nathaniel Day, the house being occupied by Peregrine Stockdale, a mariner. The property, with a frontage of 16 feet on Queen Square and a length of 141 feet, was described as 'All that Messuage or Tenemt. & Buildings behind the same', which indicates that there may already have been a structure fronting Welsh Back.

1735	The back part of the plot was described as a 'Coach house & other back Buildings', although these were not necessarily at the very end of the plot where 43 Welsh Back later stood (see 43 Welsh Back below).
1747	Lease granted to Edward Wilcox.
1762, 1775 & 1790	Lease granted to Richard Hayward, a blockmaker. Property described as a messuage or tenement together with 'a Work Shop behind the same' in Richard's possession and 'also Two Lofts over the sd. Work Shop' lately in the occupation of William Bundy, a sailmaker, but now unoccupied.
1803	Lease granted to John Noble although Richard Hayward continued to occupy the premises.
1818	Lease granted to Thomas Bird and others.
c.1825	A survey showed that the house was 15 feet 9 inches wide on the Queen Square frontage and 35 feet 5 inches long. There was a narrow yard, 15 feet 10 inches long, immediately behind it with shallow outbuilding to either side; behind again was a full-width, 22 feet 7 inches, block, while towards the rear of the plot was an L-shaped block 20 feet 4 inches long, with its eastern wing apparently open to the west.
1827	A watercolour shows a narrow 3-storey house.
1831	Lease granted to Mary Davey, a spinster.
1845 & 1859	Lease granted to Lewis Langdon of London.
1870 & 1877	Lease granted to John Fisher.
1878	Lease granted to William Hathaway, a woollen draper.
1881 & 1885	Leases granted to members of the Wood family.
1887	Apart from the house all the structures were recorded as single storey.
1898	Lease granted to Alice Maud Garrard.
1923	Recorded as having a 2-window elevation and brick stone front court wall (Dening 1923, plate IV).
to mid 1930s	Occupied by various produce and flour brokers.
1959	This building together with 21 and 22 Queen Square and 41 Welsh Back were redeveloped by Hosegood Industries as an office complex.

24 Queen Square

1735	The original plot of 31 feet in width on the Queen Square frontage and 141 feet long had been divided down its length into two plots approximately 50 feet and 110 feet long. Thomas Buckler was given the lease of the front part on 25 June (the house fronting the Square and a small yard with outbuildings) while Charles Harford, a deal merchant, had been granted the larger part by a lease 13 days earlier (two messuages or tenements fronting the lane, a 'Warehouse & Lofts' doing the same, and a third messuage or tenement fronting the River Avon). The two dwellings on the lane were occupied by Captain William Clerk, a mariner, and Anthony Kibblewaite. Harford occupied the dwelling fronting the Avon (i.e. Welsh Back) and the warehouse and lofts. (See below: Bell Lane Houses, Warehouses and Lofts on Bell Lane and 44 Welsh Back for the subsequent history of these rear properties).
1750	Lease of the house fronting the Square granted to Thomas Holmes.
1764 & 1778	Lease renewed by his widow, Mary.
1792	Lease granted to Mary Bannister.
1806 & 1820	Lease granted to Ann Bannister, a spinster.
c.1825	The house was 31 feet and 3 inches in width on the Queen Square frontage. The whole plot was 35 feet 6 inches in depth, but this included a small yard with outbuildings both to north and south: the latter appears to have been open-fronted towards the yard.
1827	A watercolour shows the house although it is partly obscured by a tree.
1834	Lease granted to Elizabeth Jacks Hawkins, a spinster.
1841	Harriet Oram was running a lodging house.
1845	Lease granted to Elizabeth Jacks Frenfield.
1851	William Tapson was operating a boarding and day school, the census listing his wife, daughter, sister-in-law, three servants and thirteen pupils.
1867, 1871 & 1884	Still recorded as a school or 'Academy'.
late 19th century	Occupied by Strong Brothers, corn and produce brokers.
1923	Recorded as having a 5-window 3 storey front elevation with a central entrance. It had a unique over-door or shelter on the main elevation, which was larger than the normal hood (Dening 1923, 39 & plate IV).
to late 1930s	Occupied by corn merchants, brokers and grain shippers.
late 1930s	Demolished to make way for the new Western Road, later called Redcliffe Way.

Bell Lane Houses

	For their early history see 24 Queen Square above.
1750	Lease granted to John Read, the houses being occupied by one Thompson, a mariner, and one Rossiter, a widow.
1764	Lease renewed by John Read. The western house occupied by William Baker, a mariner, and the other occupied by William Carter, also a mariner.
1779	Lease renewed by John Read, the houses occupied by William Bell and Thomas Vaughan.
1793	Lease granted to Hester Bell who occupied one house and John Lovelace, hallier, the other. The combined frontage width was given as 36 feet and the depth as 31 feet.
1807	Leased to the Revd. Andrew Daubeny and Hester and Mary Bell, spinsters, daughter of the late Hester Bell. John Lovelace occupied both properties.
1820	Leased to Hester and Mary Bell.
c.1825	A survey showed both houses as virtually identical and each had a small rear yard with an outbuilding to either side.
1841	Hester and Mary Bell occupied one house, with the other occupied by Thomas Bland, a hoop bender, and his wife Mary, William Grey, a tide waiter, and two others.
1851	The eastern house (1 Bell Lane) occupied by Thomas Bland and his wife, four lodgers, Thomas Cluett, a mariner, his wife and niece; the western house occupied by William Bland, a hoop bender, his wife, and Mary Bell as lodger.

late 19th century	An undated photograph recorded each of the houses with two windows per storey and one in the attic under a relatively shallow gable; a cross-roof connected the rears.

Warehouse and Lofts in Bell Lane

1715	The building was described as 'Green's Warehouse'.
1735	Lease granted to Charles Harford, a deal merchant. Described as a 'Warehouse and Lofts'.
1750, 1764 & 1779	Lease granted to John Read. Warehouse occupied by Thomas Deane in 1750.
1755-60	Occupied by Captain Read.
1765	Occupied by John Williams.
1770	Occupied by George Bush.
1775	Occupied by Bush and Elton.
1780	Occupied by Thomas and Richard Haynes.
1793	Lease granted to Thomas Skenfield, a victualler, who was also the occupier.
1795	Occupied by John Davis.
1800-5	Occupied by Thomas Clent.
1810	Occupied by John Pugh.
1820-25	Occupied by James Rossiter.
c.1825	A survey showed the frontage to Bell Lane measured 28 feet 6 inches, with the depth of the property about 31 feet 8 inches.
1832-35	Lease held by Robert Smart, a victualler, who occupied the warehouse and The Bell (see below).
1838	John Reed, a victualler, who also occupied The Bell (see below), held the combined premises.
1840-49	Occupied by John Reed.
1865	Occupied by George Garrard, wine merchant.
1887	No use was specified but the building was shown as a single unit of three storeys.
late 19th century	A photographic view from Redcliffe Parade shows the property had a double pitched pantiled roof with deep eaves.

44 Welsh Back (The Bell)

1715	Occupied by Charles Nicholas who continued as occupant until well into the 1720s.
1730-44	Occupied by Charles Harford, a deal merchant.
1735	New lease granted to Charles Harford.
1750, 1764 & 1779	Lease granted to John Read.
1748-50	Occupied by Thomas Lacey, a victualler.
1755	The licensee was John Williams (McGrath & Williams 1979, 4).
1755-71	Occupied by John Williams, a tailor.
1779-80	Occupied by John Caines.
1785-93	Occupied by Thomas Skenfield, a victualler.
1793	Lease granted to Thomas Skenfield.
c.1825	A survey recorded frontages of 31 feet 10 inches to Welsh Back and 24 feet 10 inches to Bell Lane. West of the main building was a 15 foot long yard with a small block on its north side and a shallower, possibly open-fronted, structure between yard and lane.
1832	Lease held by Robert Smart, a victualler, for the messuage or tenement 'called or known by the Name or Sign of the Bell, together with a Warehouse and Lofts thereto belonging situate on Bristol Back' (see above).
1838	John Reed occupied the premises and also the warehouse and lofts in Bell Lane (see above).
1917	Occupied by Mary Ann Boulton.
1923	Occupied by Thomas Ross.
1935	The street directory did not mention The Bell which may already have been removed and the property was listed with nos. 42 and 43 Welsh Back as part of Spackman and Gosling. (For its subsequent history see 43 Welsh Back below).
June 1936	Two photographs show a 2-storey brick block erected on the site of The Bell and its yard (Winstone 1986, plates 70 & 71).
2002	The building was demolished.

43 Welsh Back (behind 23 Queen Square)

	For much of its history this property was part of the 23 Queen Square premises and included in those leases (see above).
1735	The back part of the Queen Square plot was described as a 'Coach house & other back Buildings', although these were not necessarily at the very end of the plot where 43 Welsh Back later stood.
1762	There was a 'work shop' in the possession of Richard Hayward, a blockmaker, above which were two lofts, late in the possession of William Bundy, a sailmaker. This building must have been at the end of the plot, fronting the Back and facing the Avon beyond it, the future 43 Welsh Back. Hayward continued to occupy the building into the early 1800s.
1823	Occupied by Nathaniel James as a 'Bottled Liquor Warehouse'.
c.1825	A survey recorded a block 41? feet long by 16 feet 2 inches wide.
1829-1851	Occupied by John Fisher, importer of foreign wines and spirits.
1852-53	Occupied by Garrard and Bartram, importers of foreign wines and spirits.
1854-early 20th c.	43 and 42 Welsh Back occupied by Garrard and Bartram.
1887	The building shown as three storeys.
1935	Occupied by Spackman and Gosling (B.W.T. Moran and B. Mabon Moran), wine and spirit merchants, who also occupied nos. 42 and 44 Welsh Back.
post 1945-1950s	Occupied by Morans (Bristol) Ltd.
1980s	Peter Dominic, off licence, etc.

c.1991	The property was vacated and left empty.
2002	The building was demolished.

42 Welsh Back (behind 22 Queen Square)

	For much of its history this property was part of the 22 Queen Square premises and included in those leases (see above).
1779	As late as 1779 the site of 42 Welsh Back was still described as a garden.
1793	Described as 'a Warehouse and Lofts' behind 22 Queen Square, occupied by Thomas Vaughan, a timber merchant.
1806	Occupied by Grace and Cole, mealmen.
1820	Leased to John Harris, a cornfactor, and George Wills, a grocer.
1823	Warehouse occupied by Thomas Vining.
c.1825	A survey shows the building had a frontage of 16 feet 10 inches on Welsh Back and was 39 feet 3 inches in length.
1825-49	Occupied by Henry Chidgey Quinton, a timber merchant.
1851	Occupied by Thomas Swift.
1852	Occupied by Garrard and Bartram, importers of foreign wines and spirits
1854	42 and 43 Welsh Back occupied by Garrard and Bartram (for its subsequent history see 43 Welsh Back above).
1887	The building shown as three storeys.

41 Welsh Back (behind 21 Queen Square)

	Until well into the 19th century this property was no more than the rear part of what was then 21 Queen Square (see above).
1735	The future 41 Welsh Back was presumably the 'Warehouse Lofts' etc to the rear of the mansion on the Queen Square frontage.
1823	The premises on Welsh Back was listed independently of the house on Queen Square and was leased to George Weare Braikenridge, a merchant.
c.1825	A survey recorded a single large block with the Welsh Back frontage as 32? feet and the depth at the southern edge as 47 feet 10 inches, reducing towards the north.
1824-1891	George Granger and his family held leases of the combined 21 Queen Square/41 Welsh Back property.
1851	41 Welsh Back, a warehouse, was occupied by William and George Granger.
1862 & 1871	Occupied by William Granger as a cooperage.
1887	The building shown as three storeys with a pitched, tiled roof.
1889-1935	Occupied by Niblett and Foden, cloth workers.
1907	Depicted by Samuel Loxton, it was shown with a right hand loading slot, with windows and a first floor loading door to its west, and with a pitched roof with a C-shaped plan (Stone 1909, 296).
1959	The property was rebuilt.
c.2000	The premises were vacated.
2005	The building was demolished.

THE FINDS

Pottery

By Rod Burchill and Reg Jackson

Introduction

The pottery assemblage recovered from the site of nos. 42 and 43 Welsh Back consisted for the most part of domestic wares common between about 1650 and *c*1750.

The pottery was mostly recovered from a series of dumped deposits originally thought likely to be of industrial origin. However, although only a limited number of fabrics were found the disparate local and non-local sources represented by this material together with the variety found in each context suggests the pottery represented general domestic waste.

Although the excavator identified a number of phases of activity on the site there was no significant difference in the pottery recovered from each phase. It was therefore decided that the following report would take the form of a discussion of the principal pottery types present in the assemblage.

Methodology

The ceramic material was quantified by sherd count and weight. The fabrics were visually examined using a hand lens (x10) where necessary, and identified by comparison with the Bristol Pottery Type Series (BPT). The full details of the Type Series (Ponsford 1988, Ponsford 1998) and recently updated and amended by Rod Burchill is not presented here; however, each of the pottery types recovered is described.

The Assemblage

Quantification

The pottery assemblage consisted of 1,680 sherds weighing 66.154kg. The pottery is quantified by context, type and sherd count in Table 1.

Of the thirty-one different fabrics present, three, BPTs 99, 100 and 112, accounted for 60% of the pottery.

Most numerous at 31% of the assemblage was North Devon gravel-tempered ware (BPT112), which was almost double the next most common type, English tin-glazed

	507	508	528	529	531	532	533	534	539	547	549	550	552	554	556	559	560
BPT																	
82											1						
95	3			3								1					
96	1		1			1					5	1	1				
99	21	3	10	1	2		1				4		22		1		1
100	15	1	2	4	3		4				7	9	5			1	
108	2									1		2					
109	3				1						1						
112	55	18	14	1	17	2		5	1		5	17	9		1		1
118																	
179			4														
186			3														
197																	
201							1				1						
202														11			4
203			3														
211	3				3		1					2					
212			1									2					
223	10		5														1
264					1							4		1	3		
268	5		2	1	1								1				
277	1		1									1		3			1
278	2	3		1										4			4
280												2	2				
282																	
285					1							2					
310														1			
311																	
334			2														
340														8			1
341																	
349											2						1
Misc																	
Total	**121**	**25**	**48**	**11**	**29**	**3**	**7**	**5**	**1**	**1**	**26**	**43**	**40**	**28**	**5**	**1**	**14**

	561	564	565	566	568	570	571	575	580	581	582	584	585	586	587	590	592
BPT																	
82																	
95		1			13			1			1		2		1	2	
96						3										6	
99	8	3		2	1	1		2	2	8	7	1	3	2	8	36	
100	4	1		6	3			1	3	1	8	6	2	3	3		
108	1	2		1						2	1		1		6		
109															7	3	
112	2		1	3	5	15	7	1	3	8	7	10	2	3	7	13	2
118																1	
179																	
186																1	
197										1							
201																	
202																	
203	1																
211																	
212																	
223																	
264										1		1			12		
268	4		1	6		1			2	1							
277	3				2												
278																	
280										1	5		1	3	2		
282															1		
285																1	
310															3		
311																	
334																	
340																	
341									1								
349																	
Misc					2										3		
Total	**23**	**7**	**2**	**18**	**26**	**20**	**7**	**5**	**11**	**23**	**29**	**18**	**11**	**11**	**53**	**64**	**2**

Table 1 The pottery quantified by context, type and sherd count (contexts 507-592).

	593	594	595	598	599	600	601	602	603	609	610	611	612	617	618	619	620
BPT																	
82																	
95		1			3	1	7		74			1	6				
96	2				10	2	8		1				1				
99		6	3		8	12	12		17		6			8	2		
100	2	6	3	1	12	3			13				15				2
108	1	3			6				1			1	4				
109													4				
112	2	9		1	26	36	7	1	23	3		2	3	1	2	1	7
118					1				3								
179																	
186																	
197									1								1
201																	
202																	
203																	
211					2												
212																	
223																	
264			1	3		9	2		16	1			3				
268		3			31	2											
277													1				
278																	
280		3			1				3								
282																	
285														2			
310						7				1							
311					1												
334																	
340																	
341																	
349																	
Misc									7								
Total	**7**	**31**	**7**	**5**	**101**	**72**	**36**	**1**	**159**	**5**	**6**	**4**	**37**	**11**	**4**	**1**	**10**

	622	624	625	626	627	629	631	632	633	634	635	636	637	638	639	641	642
BPT																	
82																	
95		3				1	1								5		
96														1	7		
99	2	2	1	1	1	5		6	1	1				3	12		
100	7			3		2		1		10			1	3	10	4	
108									1						1		
109															2		
112	10	5		2		9	6	2	1	1	1	3			50		
118																	
179																	
186																	
197																	
201																	
202																	
203																	
211						1											
212																	
223																	
264	3		1		2	1	12					1			7		
268						2									2		
277																	
278																	
280													1		3		
282																	
285															2		
310																	1
311																	
334																	
340						2											
341																	
349																	
Misc															1		
Total	**22**	**10**	**2**	**6**	**3**	**23**	**19**	**9**	**3**	**12**	**1**	**4**	**2**	**7**	**102**	**4**	**1**

Table 1 The pottery quantified by context, type and sherd count (continued, contexts 593-642).

	644	645	650	652	653	654	655	656	657	659	665	669	670	672	681	683	692	Total
BPT																		
82																		**1**
95		2	1				3									2		**139**
96												2		1			1	**55**
99				1			13			1			1	1				**276**
100	4					1	10		2			6	1	4	1			**219**
108		1			2											3	1	**44**
109						1	3					5			1			**31**
112			1	1	4	10	42	4		4	1		1	4		5	4	**530**
118													1					**6**
179																		**4**
186						6	1											**11**
197																		**3**
201																		**2**
202																		**15**
203							1											**5**
211																		**12**
212																		**3**
223																		**16**
264			1	2		2				1	1			4		1	2	**99**
268							6					9						**81**
277							2					4		3				**22**
278																		**14**
280												1	1	1				**30**
282																		**1**
285							1						1					**10**
310			1		2					1								**17**
311							1											**2**
334							2											**4**
340																		**11**
341																		**1**
349																		**3**
Misc																		**13**
Total	**4**	**3**	**4**	**4**	**8**	**20**	**85**	**4**	**2**	**7**	**2**	**27**	**6**	**18**	**2**	**11**	**8**	**1680**

Table 1 The pottery quantified by context, type and sherd count (continued, contexts 644-692).

earthenware (BPT99) at 16%. Yellow slipware, mostly of local Bristol origin, accounted for a further 13% of the group (BPT100).

Pottery produced in Somerset, often amongst the commonest material in Bristol deposits of the later 17th and 18th centuries, accounted for only 10% of the assemblage. Interestingly, pottery produced by the Donyatt kilns in south Somerset (BPT268), which is usually under represented on Bristol sites was the most common Somerset fabric found, comprising 5% of the total assemblage. Production centres at Wanstrow in east Somerset (BPT96) and Nether Stowey in west Somerset (BPT280) represented only 3% and 2% of the assemblage respectively.

Of particular interest was the presence of a significant amount of stoneware produced by the Westerwald industry in the German Rhineland. Totalling 8% of the assemblage, it was the fourth most common fabric found.

Medieval and Early Post-Medieval Pottery

The earliest pottery recovered from the site was six sherds in the ubiquitous late 13th- or early 14th-century Bristol/Redcliffe ware (BPT118). Three sherds of Malvernian redware (BPT197) might be as late as the end of the 16th century and a sherd of Italian marbled slipware (BPT82) found in context 549 is dated between 1600 and 1650. A single sherd of Merida-type ware (BPT282) in context 587 is probably of a similar date. All are residual in the contexts in which they were found.

Later Post-Medieval Pottery

Pottery types produced in the period between the mid 17th and mid 18th centuries accounted for most of the ceramic material recovered from the site, although the absence of pottery produced after 1720 from all but 12 of the 82 contexts suggested that most of the material had been deposited by the end of the first quarter of the 18th century.

Vessels produced by the North Devon industry centred on Bideford, Barnstaple and Great Torrington dominated the assemblage (Grant 1983). Coarse wares including pancheons, basins and cream pans were the most common (BPT112). Other forms found included jugs or pitchers, jars and chamber pots. Identifiable fragments of at least three pipkins were found along with four examples of dripping pans. The bunghole spout from a cistern was recovered from context 590. Likely to have been produced by the Barnstaple kilns were a number of slip and sgraffito decorated dishes and plates in a partially reduced gravel-free fabric with deep yellow glaze (BPT108). Fragments from a similarly decorated deep plate found in contexts 600, 601 and 639 differed from the others being in an orange-red gravel-

tempered fabric with a very pale yellow glaze (Fig.18.24). It seems likely that the latter vessel represents an attempt by one of the other North Devon kilns to copy the Barnstaple sgraffito wares.

An unusual product of the North Devon kilns was part of a decorated spit-support or stand (Fig.19.30, context 566, SF6). This measures 151mm high by 85mm thick by at least 95mm wide. Although badly damaged it has a 'rose' impression on one face with traces of a similar impression on the reverse. On one end of the support is a fragment of decoration that cannot be identified. The fabric is coarse gravel-tempered, the decoration being glazed yellow with patches of dark brown over a white slip. Other spit-supports are known from North Devon and South Wales and one with a similar decoration to that from Welsh Back was found at Blackpill, Swansea (Redknap 1992, 57, Fig.5). They are generally though to date to the 17th century.

Close dating of the North Devon wares is difficult as the kilns operated over a long period. However, most of the slip and sgraffito decorated vessels were probably made between about 1650 and 1700 and a similar mid 17th-/early 18th-century date can probably be applied to most of the coarse ware.

Tin-glazed earthenware was the second most common material found on the site, representing 16% of the assemblage. Much of this material was too fragmentary to identify its source with any certainty. However, most was probably made locally: tin-glazed earthenware was produced at Brislington near Bristol from about 1650 (Jackson 1999).

The most common form of tin-glazed earthenware recovered was the small open bowl with simple rim and foot-ring base. These were mostly decorated internally with floral or geometric patterns in cobalt blue, manganese-purple and turquoise. Wide dishes with foot-rings and shaped rather like flattened versions of the bowls were also common. Many of these vessels had a lead rather than tin-glaze on the external surface suggesting a date in the second half of the 17th century for their production. Chamber pots in a plain undecorated all over white tin-glaze occurred in a number of contexts. Ointment pots were few in number and just two drug jars or albarello were noted. At least two porringers - small bowls with a flat, pierced handle, were found in context 632; the sherds had a blackened tin-glaze probably the result of smoke damage during firing (Fig.17.10).

Recovered from context 550 was part of a vessel of uncertain form in an orange-pink fabric with overall tin-glaze decorated with blue floral and geometric patterns in bands set between green coloured cords and reeds. There was at least one perforation in the vessel wall (Fig.17.3).

Slip decorated vessels (BPT100) were common across the site. Broadly similar vessels were produced by both the Bristol and Staffordshire industries from the third quarter of the 17th century until well into the second half of the 18th century. However, the pale colour and appearance of the glaze suggests that most of the vessels found on the present site were of local Bristol origin.

Only a few of the vessels could be identified with certainty. Drinking mugs similar to Barton (1961) Fig.2.4, cups as Barton's Figs.2.13 and 18 and posset pots probably similar to Barton's Fig.2.8 were common as were press-moulded plates, most with a cockleshell impressed piecrust edge again indicating a Bristol origin. Most of the yellow slipware from this site probably dates between *c*1680 and 1710. Part of the base of a slipware cup with kiln debris adhering to the underside was the only waste pottery found.

From context 559 came the rim of a vessel with reversed decoration similar to some examples of BPT100 but in unusual thin reddish firing clay. It was not possible to make a direct comparison but this sherd might be similar to a type (BPT337) found in the Greyfriars Conduit in Lewins Mead in 1973. The source of this fabric is not certain but it is clearly not typical of the Bristol or Staffordshire industries.

Probably similar in date to the BPT100 vessels were a small number of tankards in a buff fired fabric similar that of BPT100 but with a mottled brown glaze (BPT211).

The fourth most common pottery numerically was Westerwald stoneware at 8% of the assemblage, some 139 sherds. However, 63% of this number was found to be from a single vessel, a jug or Krug, probably dating to the second half of the 17th century (Fig.18.15). Other Westerwald vessels included Humpen (cylindrical tankards) and Kugelbauchkrug (globular drinking jugs or mugs). The vessels were decorated with complex moulded patterns often infilled with cobalt blue and manganese purple and all could be dated between about 1650 and a decade either side of 1700.

Unusually, Somerset wares (BPT96, 268, 280 and 334), so often a major element of later 17th- and 18th-century Bristol pottery assemblages, were found only in small numbers. Also unusual was the presence of sherds from all four known kiln sites: Wanstrow (BPT96), Donyatt (BPT268), Nether Stowey (BPT280) and Wrangway (BPT334). The latter was a production centre operating in the 16th and 17th centuries whose products were apparently only rarely traded to Bristol.

Vessels found at Welsh Back and typical of the Somerset industry included pancheons, bowls, dishes, pipkins, jars and chamber pots. Dishes and chamber pots occurred in both plain and slip decorated forms. A less common form, found in context 639, was the base and near complete bowl of a chafing dish (Fig.19.36), a product of the Wanstrow, east Somerset kilns (BPT96). The production of chafing dishes at Wanstrow appears to have had a short life with most being made between about 1600 and the third quarter of the 17th century (Good & Russett 1987).

English brown stoneware occurred in a number of contexts but represented only 1.3% of the assemblage (BPT277). The production of brown stoneware, which started in the later 17th century, was a major element of the Bristol pottery industry throughout the 18th century and the paucity of such material at this site reinforces the conclusion that pottery deposition had generally ceased by the early

18th century.

Of particular interest in context 568 was the upper body profile of a stoneware jug with a crudely stamped Bellarmine style facemask and a brown salt-glaze (Fig.18.19). A glazed over scar on the front of the vessel suggested that it originally had a medallion decoration, which had become detached prior to firing. Although Bellarmine jugs are more often found as German imports, copies with crudely formed German-style masks were being produced at Woolwich, London prior to 1660 and at Fulham by the 1670s (Green 1999). The example from this site is likely to be from one of the London potteries.

Other stoneware included sherds in a pale creamy-white firing fabric similar in form and decoration to Westerwald tankards. Westerwald stoneware usually fires to an even pale grey finish and whilst white German stoneware was imported into England, the quality of the Welsh Back examples identifies them as probably being English copies. The Fulham pottery was certainly making vessels in the style of Westerwald in a cream-white salt glaze in the 1670s. It is unlikely that they represent a local Bristol production as, although a cream-firing stoneware was being made in Bristol in the 18th century (Burchill *et al* 1987), the known examples of this fabric were all covered in a pale brown salt-glaze.

Late post-medieval redware comprised about 6% of the assemblage (BPT264). None of the vessels were unusual and all dated to the 18th century.

The remainder of the assemblage consisted of typical Bristol and Staffordshire wares and individually none represented more than 1% of the assemblage.

Conclusion

Generally, the pottery was typical of that found on Bristol sites dating to the later 17th and early 18th centuries. With the exception of 17 sherds from moulds and jars associated with sugar production, the assemblage comprised general household wares mostly for use in the kitchen and at table.

Although a very small quantity of potential waste or second quality tin-glazed earthenware was present, it was insufficient to suggest that any of the dumped deposits represented material obtained from the local kilns.

As already stated, the general lack of material that could be later than about 1720 suggests that most of the pottery was deposited before that date.

Bristol Pottery Types Present in the Assemblage

BPT82 North Italian slipware. A hard red earthenware with creamy white inclusions. Decorated with red and white or red, green and white marbled slip. 1550-1725.

BPT95 Westerwald stoneware. Grey stoneware with an overall light blue-grey glaze. Applied decoration with blue and purple infill. Forms vary with date. 1600-1800.

BPT96 Wanstrow (east Somerset) redware. Forms vary with date. 1550-1800.

BPT99 English tin-glazed earthenware. Normally white tin-glaze but occasionally tinted blue or pink. Seventeenth century examples often have an external lead glaze. 1640-1770.

BPT100 Bristol or Staffordshire yellow slipware. It is difficult to distinguish the production site but this can sometimes be determined by style/decoration and/or quality. 1650-1800.

BPT108 North Devon (Barnstaple) slip and sgraffito wares. Gravel-free fabric. 1650-1900.

BPT109 Staffordshire red ware. Hard pink or red earthenware decorated with thick white trailed slip under a clear lead glaze. External red wash. 1630-1750.

BPT112 North Devon gravel-tempered fabric. 1600-1900.

BPT118 Bristol/Redcliffe jug fabric. 1275-1500.

BPT179 White to white-buff stoneware with 'scratch-blue' decoration. 1700-1770.

BPT186 Bristol or Staffordshire white salt-glazed stoneware. 1700-1770.

BPT197 Malvernian redware. 1400 to early 17th century in Bristol.

BPT201 Flower pot or other 'garden' wares. 18th century or later.

BPT202 White china. 1770 and later.

BPT203 English porcelain. 1700 and later.

BPT211 Bristol or Staffordshire mottled brown (manganese) glazed ware. 1690-1800.

BPT212 Nottingham stoneware. 1690-1900.

BPT223 Mocha ware. Late 18th century to 20th century.

BPT264 Locally produced (mostly Bristol) late post-medieval redware. 18th and 19th centuries.

BPT268 Donyatt (south Somerset) redware. 1550-1900.

BPT277 English brown stoneware. Mid 17th to early 19th centuries.

BPT278 Transfer-printed ware. 1770 and later.

BPT280 Nether Stowey (west Somerset) redware. 1550-1750.

BPT282 Merida-type ware. 1250-1650.

BPT285 Miscellaneous unsourced Somerset post-medieval redware. 1550-1800.

BPT310 Sugar moulds and syrup jars. 1650-1800.

BPT311 Black basalt ware. 1740-1900.

BPT334 Wrangway (Somerset) redware. 16th/17th centuries.

BPT340 Miscellaneous Staffordshire wares. 1770 and later.

BPT341 Werra-type ware. 1600-1650.

BPT349 Cream ware. Probably mostly locally made. 1765-1830.

Catalogue of Illustrated Pottery

All the illustrated pottery is from Period II deposits unless otherwise stated.

Fig.17

1. Profile of bowl with foot ring. Internal white tin-glaze decorated with dark blue multiple bands and geometric patterns. External lead glaze with splashes of cobalt. BPT99. Context 601.

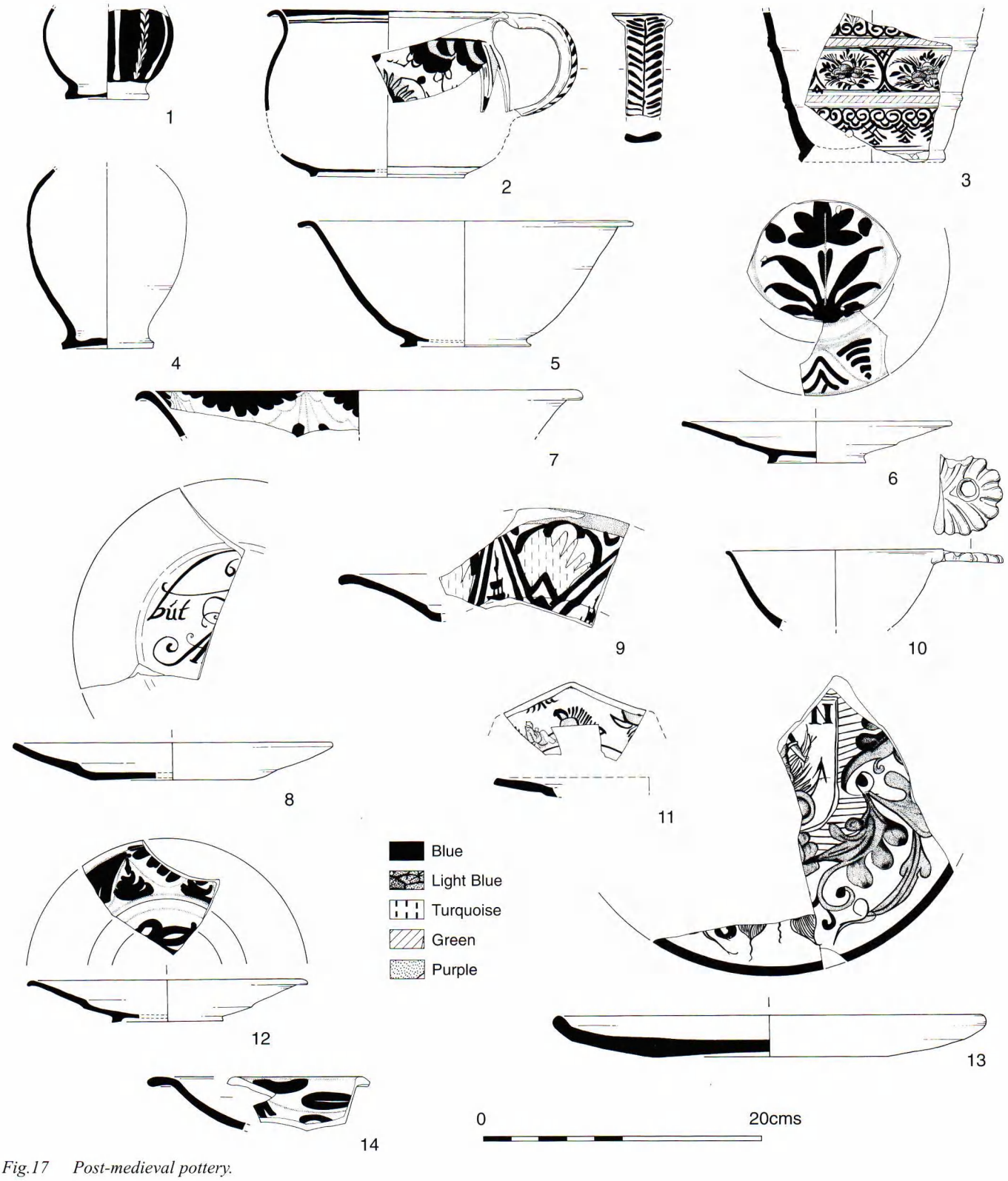


Fig.17 Post-medieval pottery.

2. Small chamber pot. Overall white tin-glaze decorated with poorly executed floral pattern in light and dark blue. BPT99. Contexts 600 and 601.

3. Overall white tin-glaze decorated with dark blue floral and geometric patterns separated with raised cords and reeds coloured green. There is at least one small perforation in the vessel wall close to the base. The use of the vessel is not known although it may have been a flower vase or bowl. BPT99. Context 550. Period V.

4. Base and part profile of bottle. Unglazed. BPT99. Context 594.

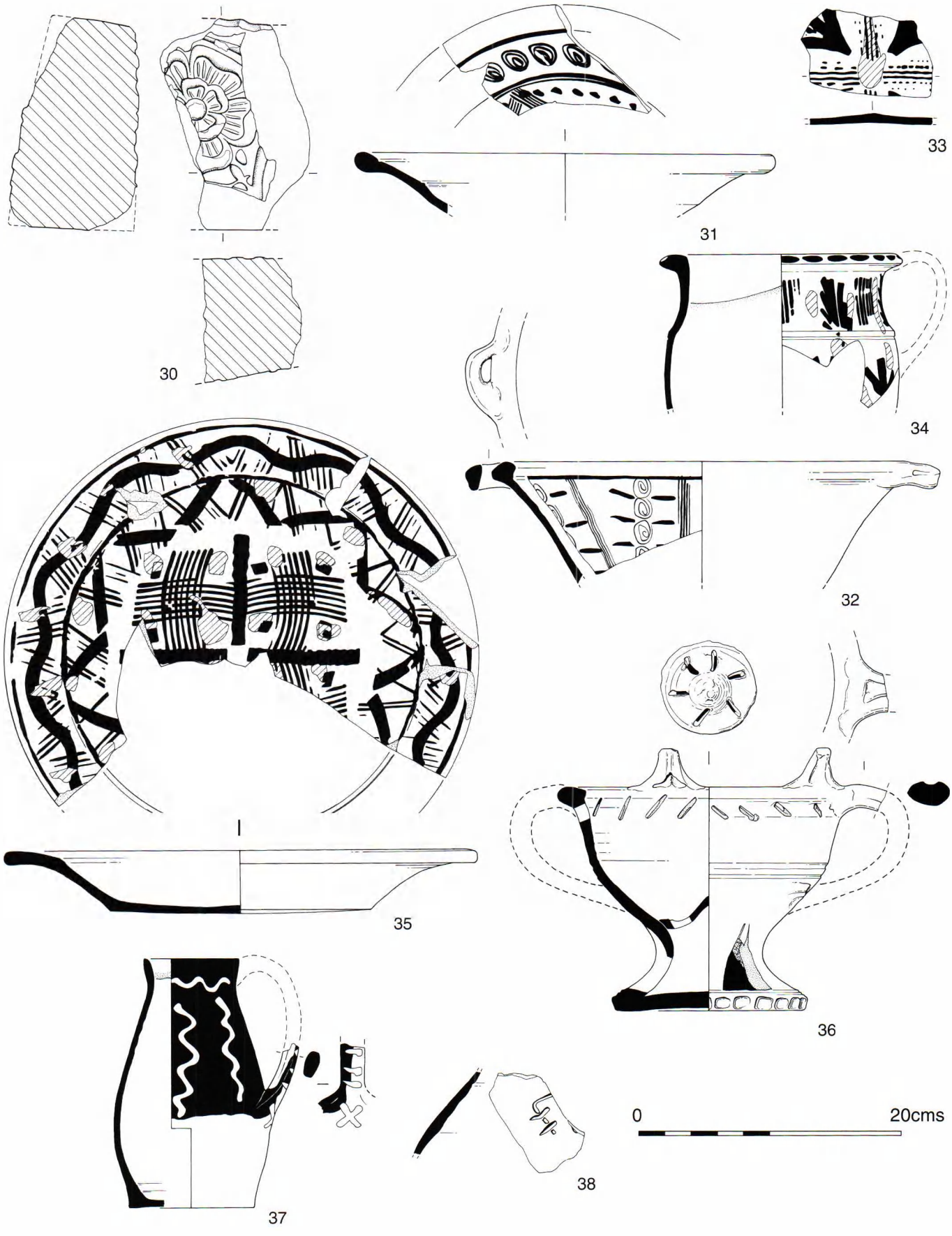


Fig.19 Post-medieval pottery.

29. Rim of bowl. BPT112. Context 584.

Fig.19

30. Part of a spit-support or stand. It has a 'rose' impression on one face with traces of a similar impression on the reverse. On one end of the support is a fragment of decoration that cannot be identified. The decoration is glazed yellow with patches of dark brown over a white slip. BPT112. SF6. Context 566.

31. Dish with white slip cut through by sgraffito decoration. Internal yellow-brown glaze extending over rim. Fragment of another vessel adhering to patch of external glaze. BPT108. Context 599.

32. Deep dish with horizontal handle on rim. Internal yellow-brown glaze extending over rim and handle. Decorated in sgraffito with vertical combing and horizontal slashing separated by faint swirls. BPT108. Context 585. Period V.

33. Base of bowl or jar. Copper stained white slip with sgraffito decoration. BPT268. Context 599.

34. Upper part of chamber pot decorated with white slip cut by sgraffito and with random smears of copper. BPT268. Context 669.

35. Dish with pale yellow internal glaze. White slip below glaze cut through by sgraffito decoration. Patches of copper staining which extends over the sgraffito decoration in places. There are splashes of white slip externally and excess white slip has been partly wiped off around the outside of the rim. BPT268. Context 599.

36. Chafing dish. Pedestal base with triangular cut-outs in the sides. Six slashed openings, each approximately 18mm long by 3mm wide, allowed hot air to escape from the base into the main body of the dish. Three or possibly four upward projecting lugs act as plate supports and the dish has two opposed handles. The bowl of the dish has an overall light green to brown-orange glaze although the exterior of the pedestal base has only splashes of glaze. BPT96. Context 639.

37. Jug with narrow strap handle. External patchy olive green glaze with white slip decoration. Probably BPT264. Context 587. Period IV.

38. Part of flask with incised decoration. External olive green glaze. Unsourced sandy dark grey fabric with occasional limestone inclusions. Context 603.

Ceramic Roof-tile

By Rod Burchill

Fifty-two sherds of ceramic roof-tile, weighing 5.683kgs, were found. The tile was identified by comparison to the Bristol Roof-tile Fabric Series (Williams & Ponsford 1988; Burchill 2006). The type series is not repeated here in full but a list of fabrics present in the assemblage is set out below.

The assemblage comprised six fabrics of which two, BRF1 and BRF7, were represented by single sherds. The most common type, comprising 29 sherds (56% of the assemblage), was pantile. Thirteen sherds (25%) were of BRF10 which is presently unsourced and undated. There were six sherds of North Devon tile (BRF11). Two sherds could not be attributed to a known type although one was almost certainly a Somerset fabric similar to that produced by the Nether Stowey pottery industry.

Roof-tile Fabrics Present

BRF1 Variable in colour and containing common lumps of unhomogenised clay of up to 4 to 6mm. Green glaze. Bristol. 14th century.

BRF7 Tiles in Malvernian fabric as described by Vince (1977).

BRF10 Hard orange-brown fabric, poorly mixed with unhomogenised clay lumps, iron ore and rock up to 7mm. Glaze where present is thick and purple-brown.

BRF11 Tiles in the North Devon gravel-tempered fabric.

BRF13 Pantiles, generally a hard orange-red fabric.

BRF14 A category of miscellaneous types.

Clay Tobacco Pipes and Pipe Kiln Material

By Reg Jackson

The Clay Tobacco Pipes

The excavation produced 529 clay tobacco pipe fragments from 84 contexts. The clay pipe material has been fully described and quantified by context and this information is available for study in the site archive. Only the more interesting examples bearing makers' marks or decoration are discussed here. The assemblage included 528 pipe bowls or bowl fragments of which 55 (10.4%) bore makers' marks. Two pipe bowls were decorated but did not have makers' marks. Five pipe stems were decorated.

Of the identifiable bowls 388 were spurred, 139 were heeled and one had neither heel nor spur. In general the heels were of a small diameter, some resembling a cut-off spur.

All but four of the bowls could be dated on typology alone to the late 17th and early 18th centuries but, except where marked, could not be more closely dated.

Two bowls are not of forms typically made in Bristol. One heeled bowl (context 655) has its closest parallel amongst those made in Broseley, Shropshire between 1660 and 1680 (Atkinson 1975, Fig.1, bowl form 2). Another heeled bowl had a possible initial 'C' or a crescent in relief on the side of the bowl immediately above the heel (context 507). Such a mark occurs on pipes made in London during the 18th century (Oswald 1975, Fig.12).

Two pipes had crude, but elaborately patterned, milled decoration on their stems (context 603). Although rouletted

stem decoration is known to occur on 17th-century Bristol pipes it normally takes the form of concentric bands around the circumference of the stem and often included makers' marks. The more random decoration on the two pipes from this site are paralleled by examples from a pipe kiln dump excavated in 1979 at Quay Street in Gloucester dating to the late 17th century (Peacey 1996, 249-252). Nevertheless, the bowl forms of the two examples from Welsh Back suggest that they were made in Bristol.

Forty pipes can be attributed to known Bristol makers (Price & Jackson 1979):

Richard Abbotts
One heeled bowl had the initials 'RA' incuse on the heel (context 507). This was probably made by Richard Abbotts who was free in 1690 and still working in 1727.

Philip Edwards II
Two heeled bowls had the initials 'PE' incuse on the heels (contexts 599, 603). These were made by Philip Edwards II who was free in 1681 and had died by 1705.

Llewellin Evans
Ten pipes had the initials 'LE' incuse on the heels or on the rear of the bowls (contexts 507, 550, 593, 604, 639, 655, 672, 683, 692). These were made by Llewellin Evans who took his freedom in 1661 and died in 1688.

William Evans II
One heeled bowl had the initials 'WE' incuse on the rear of the bowl (context 566). This was made by William Evans II who was free in 1667 and still working in 1713.

John Harvey I
Two spurred bowls had the three line mark 'I/HAR/VEY' in relief within a circle on the side of the bowl (contexts 507, 582). These were made by John Harvey I who was free in 1706 and still working in 1722.

John Masey I
Three spurred bowls had the two line mark 'IOHN/MASE' in relief in a circle on the side of the bowl (contexts 550, 580). These were made by John Masey I who was free in 1700 and dead by 1739.

Richard Nunney
Five heeled bowls had the initials 'RN' incuse on the heel (contexts 568, 590, 601), one with the initials within a circle (context 594). One spurred bowl had the initials 'RN' incuse on the rear of the bowl (context 604). These were made by Richard Nunney who was a founder member of the Bristol Pipemakers' Guild in 1652, taking his freedom in 1655 and was dead by 1713.

John Pearce (Pierce)
Two bowls had the two line mark 'I/PIERCE' with decoration all in relief in a circle on the side of the bowl (contexts 531, 570). These were made by John Pearce I who was free in 1696 and was still working in 1738.

IS
One bowl fragment had the initials 'IS' incuse on the rear of the bowl (context 507). Another had the initials 'IS' on either side of an anchor all in relief in a circle on the side of the bowl (context 531). A number of makers with these initials were working in Bristol during the late 17th and early 18th centuries.

William Taylor
One spurred bowl had the circular mark 'W.TAYLOR' in relief in a circle on the side of the bowl (context 531). This was made by William Taylor who was free in 1689 and dead by 1721.

Robert Tippet II or III
Nine pipes had the initials 'RT', sometimes embellished with decoration, incuse on the heels or on the rear of the bowls (contexts 529, 561, 566, 581, 599, 625, 626, 629, 655). One heeled bowl had the three line mark 'R/TIPP/ET' in relief in a circle on the side of the bowl (context 531). These were made by Robert Tippet II or III. Robert Tippet II took his freedom in 1678 and died in 1722. His son, Robert Tippet III, took his freedom in 1713 but was dead by 1716.

The Clay Pipe Kiln Material
Period II contexts 550, 552 and 568 produced 115g, 3.4kg and 4.8kg of pipe kiln material respectively. This took the form of fragments of kiln muffle, the largest piece measuring 225mm by 115mm, and over-fired and warped pipe stems which had been used in constructing the muffle. In the following description the kiln material from the three contexts will be considered together.

Pipe bowls from contexts 552 and 568, although apparently domestic debris and not from the kiln, suggest a late 17th- to early 18th-century date for the deposition of this material. No pipe makers are known from documentary sources to have been working in Welsh Back or Queen Square and the kiln muffle presumably derives from one of the pipe factories operating at that time in the Lewins Mead area of the city.

Clay pipe kilns consisted of an outer furnace structure usually built of refractory bricks in which were located the fireboxes and flues. Within this outer furnace was a chamber, case or box of refractory material known as a muffle in which the pipes were placed to keep them out of direct contact with flames or other products of combustion. It served a purpose similar to a saggar in pottery manufacture but was much larger. In all but two of the 90 examples recorded, the muffle fabric was reinforced with pipe stems and, at the junction of wall and base, with pipe bowls (Peacey 1996, 15). Pipes seem to have been loaded through an opening in the top of the muffle which was then sealed with layers of clay.

Muffles appear to have been adopted as a means of firing pipes from as early as 1612. The common form to the end

of the 17th century was that of a circular vessel with external prop type buttresses which rested against the outer furnace wall. Although 18th-century material is scarce it is clear that radical developments took place culminating in a refined type of greater height and having both external buttresses and internal peripheral shelves on which the bowls of the pipes to be fired were rested. In the mid 19th century some pipe makers started to use saggars as containers for pipes during firing, although other pipe factories continued to use muffles until the 20th century.

The Welsh Back kiln muffle is hard and brittle and varies in colour from cream through to a light grey. The fabric is coarse and appears to include grog, in the form of clay pellets. All the muffle fragments are reinforced with pipe stems, laid either horizontally or vertically. One fragment shows the use of both horizontal and vertical pipe stems within the muffle wall.

Most are fragments from the core of the muffle wall, displaying broken surfaces from every aspect.

Four are parts of the inside lining of the muffle being smooth on one surface to which layers of white slip had been applied – a process known as luting. One fragment is clearly curved and an extrapolation of this curve suggests that the muffle had an internal diameter of around 1.2 metres (context 568).

The same fragment also shows what might be the remains of a peripheral shelf. If so, then it is a step-type shelf where the kiln wall was reduced in thickness to provide the shelf. The earliest evidence so far recorded for a peripheral shelf within a muffle was found in kiln material from Gravel Street, Bristol and dates to around 1800 (Peacey 1996, 156). This makes the occurrence of a peripheral shelf in the late 17th- to early 18th-century Welsh Back material of some significance.

One fragment of muffle may have been part of an opening towards the top of the kiln (context 552). Although only the outer face of the muffle was present it exhibits a smooth top which, longitudinally, was convex in shape. However, 85mm below this possible opening the muffle had been cut off horizontally – clearly a feature of its construction and not a fracture during demolition. This feature so close to an opening does not seem to correspond with any known muffle example.

A fragment with at least two alternating bands of diagonally placed stems may be part of the base of the muffle (context 552). The surviving original surface is covered by a number of layers of vitrified material, including pieces of what appear to be clinker, suggesting it comes from part of the muffle close to a firebox.

Glass

By Reg Jackson

The excavation produced 75 fragments of glass from 39 contexts. Most of the glass came from the Period II dump deposits with only two fragments assigned to Period III, four to Period IV, twelve to Period V and one to Period VII.

The majority of the glass fragments came from thick-walled, dark green bottles with pronounced concave bases and tall necks typical of those dating from the late 17th to the mid 18th centuries. Four fragments came from small phials of light green glass also dating from the late 17th to the mid 18th centuries. Only four pieces of window glass were found and these were in the Period II dump deposits.

Six fragments of drinking glasses in clear glass included one base and part of a fluted body above a pedestal base (contexts 529, 549, 560, 581, 582, 631).

The more unusual glass fragments included the pointed base of a possible clinical or medicinal vessel in light green glass (context 561, Period II), a jug handle in dark green glass (context 577, Period II) and a lid with a knob in dark green glass (context 609, Period II).

A glass bottle and a bottle seal are described in the Small Finds section (see below).

Small Finds

By Rod Burchill and Elizabeth Davis,
with comments on a pipeclay moneybox by Reg Jackson

Personal Items

Jewellery, dress ornaments

Beads

Fig.20.1. Wood. Hemispherical bead. Diam. 15mm; height 9mm; hole 3mm. (SF62, context 642, Period II).

Wood. Hemispherical bead. Diam. 13mm; height 8mm; hole 2mm. (SF109, context 681, Period II).

Wood. Hemispherical bead. Diam. 20mm; height 10mm; hole 3mm. (SF106, context 711, Period II).

Fig.20.2. Wood. Undecorated barrel bead. Diam. 7mm; height 5.5mm; hole 2mm. (SF60, context 594, Period II).

Fig.20.3. Wood. Biconvex bead. Diam. 12mm; height 4mm; hole 2mm. (SF59, context 642, Period II).

Fig.20.4. Wood. Biconvex bead. Diam. 9mm; height 2mm; hole 2mm. (SF61, context 681, Period II).

Fig.20.5. Wood. Small hemispherical bead – completely charred. Diam. 12mm; height 4mm; hole 1mm. (SF58, context 642, Period II).

Wood. Biconvex bead. Diam. 20mm; height 6mm; hole 3mm. (SF123, context 599, Period II).

Fig.20.6. Opaque glass biconvex bead. Diam. 5mm; height 3mm; hole 1mm. (SF63, context 639, Period II).

Fig.20.7. Multi-facetted bead. Possibly obsidian. Diam. 12mm; height 8mm; hole 2mm. (SF64, context 603, Period II).

Buttons

Copper alloy domed button with integral loop. Diam.

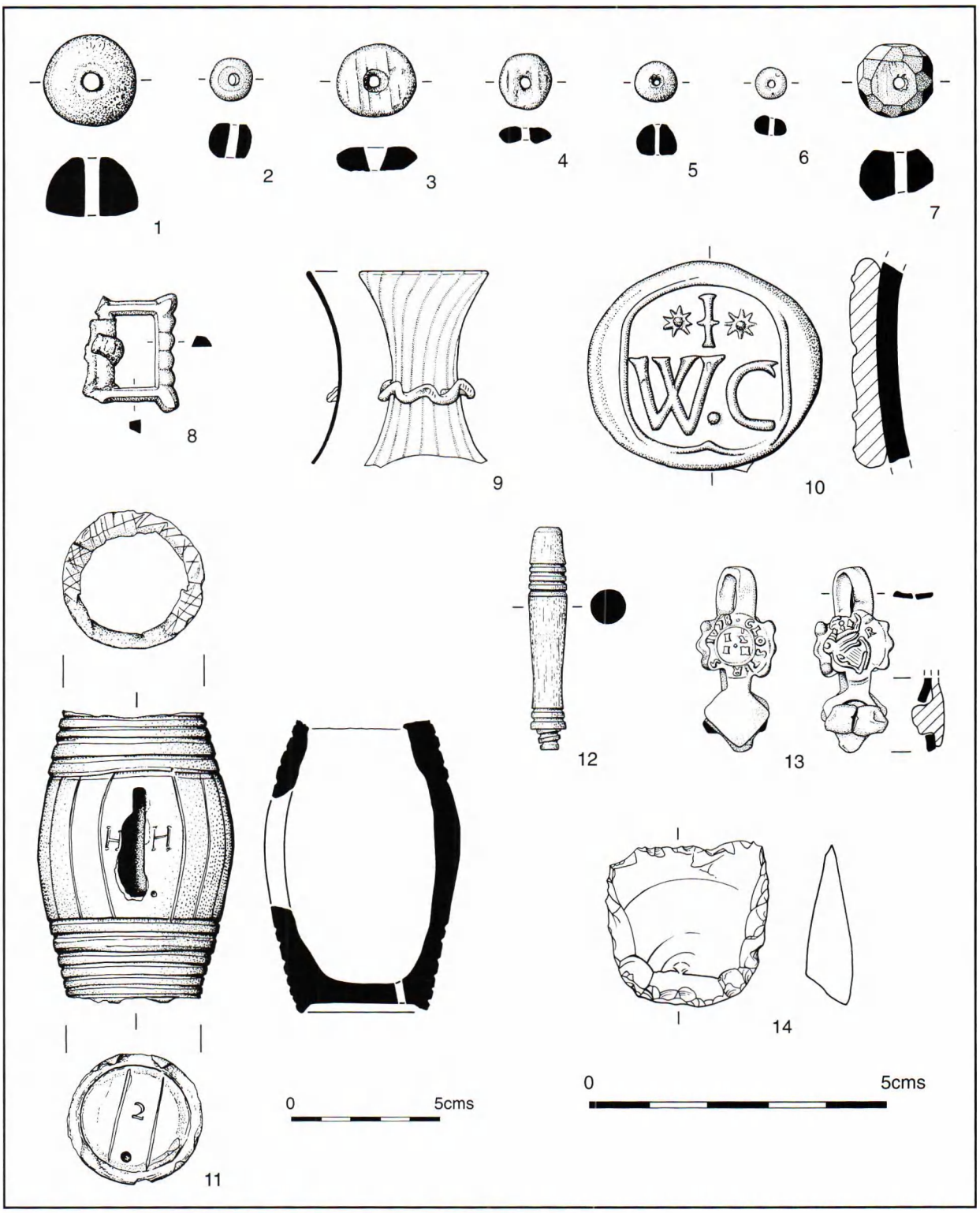


Fig.20 Post-medieval small finds.

18mm. (SF4, context 550, Period V).

Corroded copper alloy circular object, probably a button (SF34, context 600, Period II).

Copper alloy domed button or stud fragment (SF72, context 600, Period II).

Buckle

Fig.20.8. Ornate rectangular iron buckle frame with missing pin. The object was possibly tinned to give a silver effect. Outer edge has scalloped edge with lobed corners. Probably early 18th century. 17mm x 15mm. (SF67, context 581, Period II).

Coin
Copper alloy, very worn; obverse letters [GULIE]MUS TE[RTIUS]. William III farthing, 1694-1702 (SF2, context 531, Period IV).

Toothbrush
Bone, bristles absent. Down-turned handle. Five rows of six holes for bristles. The absence of grooves for retaining wires suggests that the bristles were glued in place. Overall length 153mm; length of head 20mm x 16mm. (SF39, context 507, Period III).

Fan blade
Fragment of worked bone, possibly part of a fan blade (SF40, context 599, Period II).

Comb
Fragments of a double sided bone comb with plain end-plate. Teeth: 8 fine and 5 coarse per 10mm. (SF44, context 600, Period II).

Knives
Tapering bone whittle-tang cutlery handle sub-rectangular in section. Length 74mm x 15mm x 15mm. (SF36, context 599, Period II).

Incomplete bone whittle-tang cutlery handle. Surviving length 80mm x max diam. 18mm. (SF37, context 612, Period II).

Incomplete bone whittle-tang cutlery handle probably from an eating utensil. Surviving length 78mm x max. diam. 15mm. (SF38, context 529, Period V).

Glass bottles
Fig.20.9. Rim and neck of a small flask with constricted neck decorated with vertical ribs in the manner of the Italian *Vetro a fili* and an applied horizontal dark green wavy trail at its narrowest point. The rim and neck is similar to the bi-conical decanter flasks of the second half of the 17th century although the present vessel is clearly smaller than the examples described by Willmott (2002, 84-85). Willmott suggests a Venice source for such flasks but does not rule out an English provenance. Diameter of rim 43mm. (SF42, context 599, Period II).

Fig.20.10. Bottle seal stamped 'I' over 'WC'. Diam. 40mm. (SF41, context 598, Period II).

Pipeclay Moneybox
Fig.20.11. A barrel-shaped, hand-modelled pipeclay moneybox. It stands 98mm high, has a maximum diameter of 64mm and a diameter of 46mm at its single intact end. The moneybox has been carefully modelled to resemble a wooden barrel with vertical staves inscribed, each approximately 14mm wide, and raised hoops at each end – six hoops at the intact end and 4 at the other. There is an almost central slot for inserting coins in the area of the staves. This was intended to be 4mm wide but has been damaged. On each side of the slot is an inscribed initial 'H', each approximately 7mm high. The intact end of the barrel has three planks defined, the central plank having an inscribed number '2' (5mm high) and at one end a spigot hole 3mm in diameter. The other end of the barrel has been crudely removed, presumably to extract the money which it contained. Ceramic moneyboxes are common but no similar pipeclay examples have been found in a search of the available literature. Other modelled pipeclay objects are known, such as the figurine from Pottergate in Norwich (Margeson 1993, 219, fig.168.1791) and three figurines from Exeter (for more details visit www.exeter.gov.uk.timetrail/10_goldenage/object). All are fragmentary but that from Norwich appears to be a man wearing 17th-century costume and came from garden soils dating to the period 1690 to 1760. Those from Exeter are both male and female and wear late 17th-century costume. Margeson (1993, 219) refers to a pipeclay figurine from Southampton in armour and dated to the 17th century. All these examples are considered to be toys. A pipeclay lion was found in a clay tobacco pipe maker's kiln waste dump from St Bartholomew Street in Exeter dating to the period 1690 to 1730 (Allan 1984, 282, fig.155.11). This had been produced in two moulds rather than hand-modelled, and as such had been made in a similar way to a clay tobacco pipe. However, this is the only known example of an object other than a clay tobacco pipe or a wig-curler having been conclusively made by a pipe maker. The moneybox may have been made by a clay tobacco pipe maker but could also have been produced by a toy maker who specialized in such objects. (SF1WB, context 005, Period II).

Household Items
Iron fastenings and attachments
Incomplete rectangular section spike. Surviving length 86mm; shaft 11mm x 10mm. (SF33, context 581, Period II).

Incomplete spike. Length 115mm; shaft 9mm x 5mm; sub-rounded head 17mm. (SF30, context 599, Period II).

Wrought iron hook with spike at straight end (SF31, context 529, Period V).

Part of strap fitting? Mineralised wood attached (SF76, context 618, Period II).

Structural nails were recovered from contexts 533 (SF29), 568 (SF82), 575 (SF27), 577 (SF28), 592 (SF79), 594 (SFs93, 94), 603 (SF89), 605 (SF86), 620 (SF74), 634 (SFs90, 97), 642 (SF98), 652 (SF78), 681 (SF99) and 711 (SF100).

Window fittings
Fragments of window came from contexts 550 (SF69, Period V) and 568 (SF68, Period II).

Spigots or Stoppers
Wood. Possible spigot or stopper. Maximum diam. 25mm tapering to 20mm; length 30mm. (SF120, context 634, Period II). There were three other examples but poorly preserved (SF114, context 642, Period II; SFs116 & 117, context 603, Period II).

Textile Working
Fig.20.12. Bone handle, possibly from a lace bobbin. Decorated with two sets of machine turned grooves: one of three and one of two. There is a screw terminal at one end. Length 38mm x max. diam. 7mm. (SF5, context 549, Period VI).

Fig.20.13. Lead four-disc cloth seal stamped 'Gloster 1678' with lettering in centre (indistinct); reverse crown over harp, letter 'R' to right; stamp is off-centre. The central discs are in the form of debased stars with the outer discs lozenge-shaped (SF66, context 642, Period II).

Copper alloy dressmaking pins were recovered from contexts: 599 (SF92), 600 (SF71), 603 (SF88), 634 (SF75), 639 (SF85), 642 (SF77), 652 (SF83), 681 (SF84) and 711 (SF80).

Weaponry and Ammunition
Fig.20.14. Gun flint. 27mm x 25mm x 7mm. (SF65, context 681, Period II).

Lead shot. Diam. 3mm. (SF87, context 603, Period II).

Lead shot, two pieces. Diams. 6mm and 3mm. (SF81, context 600, Period II).

Leather

By Quita Mould

Methodology
An assessment was made and a basic record compiled when the leather was wet shortly after excavation in 2003. Subsequently selected items were conserved and the remainder air-dried under controlled conditions to permit permanent storage. A detailed record of the leather has been updated and is available for study in the site archive while a basic quantification is provided here (Table 2).

The seam and stitch conventions used in the illustrations are after Goubitz (1984, 188-190, fig. 1). All measurements are in millimetres (mm). The estimation of modern shoe size has been calculated from original measurement of the insole before conservation. Shoe sizing has been calculated according to the modern English Shoe-Size scale with the insole measurement rounded up to the nearest size as necessary, continental sizing is provided in brackets.

Species identification
Leather species were identified by hair follicle pattern using low powered magnification. Where the grain surface of the leather was heavily worn identification was not always possible. The grain pattern of sheep and goat skins are difficult to distinguish and have been grouped together as sheep/goat when the distinction could not be made. The distinction between immature (calfskin) and mature cattle hides is not always easy to determine and the term bovine leather has been used when in doubt. Shoe soles and repairs are assumed to be of cattle hide unless stated otherwise.

Context	Period	Shoe parts	Primary waste	Secondary waste	Tertiary waste	Waste other/scrap
598	I alluvium	0	1	0	0	0
567	II dumping	0	0	1	0	0
590	II dumping	2	0	0	0	0
594	II dumping	1	0	0	0	1
599	II dumping	8	2	10	5	0
603	II dumping	2	2	15	5	5
618	II dumping	1	2	2	3	0
619	II dumping	1	0	0	0	0
620	II dumping	1	0	1	0	0
632	II dumping	1	0	0	0	0
642	II dumping	0	0	1	4	0
651	II dumping	1	1	1	0	0
681	II dumping	10	0	0	0	0
683	II dumping	9	0	0	0	0
692	II dumping	6	0	0	0	0
592	II well fill	5	0	0	0	0

Table 2 The leather items quantified by type and context.

Introduction
The overwhelming majority of the leather recovered from these excavations came from Period II dumped deposits used to raise the level of the marsh prior to the construction of Queen Square. Dating of the clay tobacco pipes and documentary evidence for the leasing of property on Queen Square suggest that this episode of dumping may be closely dated to a period of approximately thirty years from *c*1678-1709. The leather in the dumps includes both worn shoe parts and waste leather and represents debris from a cobbler's workshop(s); that is a workshop where worn shoes were repaired and old shoes refurbished for re-sale. Aspects of the shoes recovered suggest this rubbish had been collected from a cobbler whose stock derived from an area of the city with a certain amount of affluence. In addition, part of a shoe was found discarded in a possible well also attributed to Period II.

The shoes from Period II
Forty-eight shoe parts were found representing no more than twelve shoes. Shoes worn by men, women and children were present. While no complete shoes were found, substantial remains of four shoes were recovered and are catalogued below (Figs.21-24). The remainder comprised shoe soles, heel lifts, heel stiffeners and a sole repair. It was notable that the shoe parts were not as heavily worn as is often the case with discarded footwear.

Shoe construction
Diagnostic parts showed that all the shoes are of welted construction and are made straight, being neither distinctly shaped for the left or the right but capable of being worn on either foot, as was the practice at the time. Shoes of welted construction have soles made of several layers. These layers, usually comprising an insole, a middle sole,

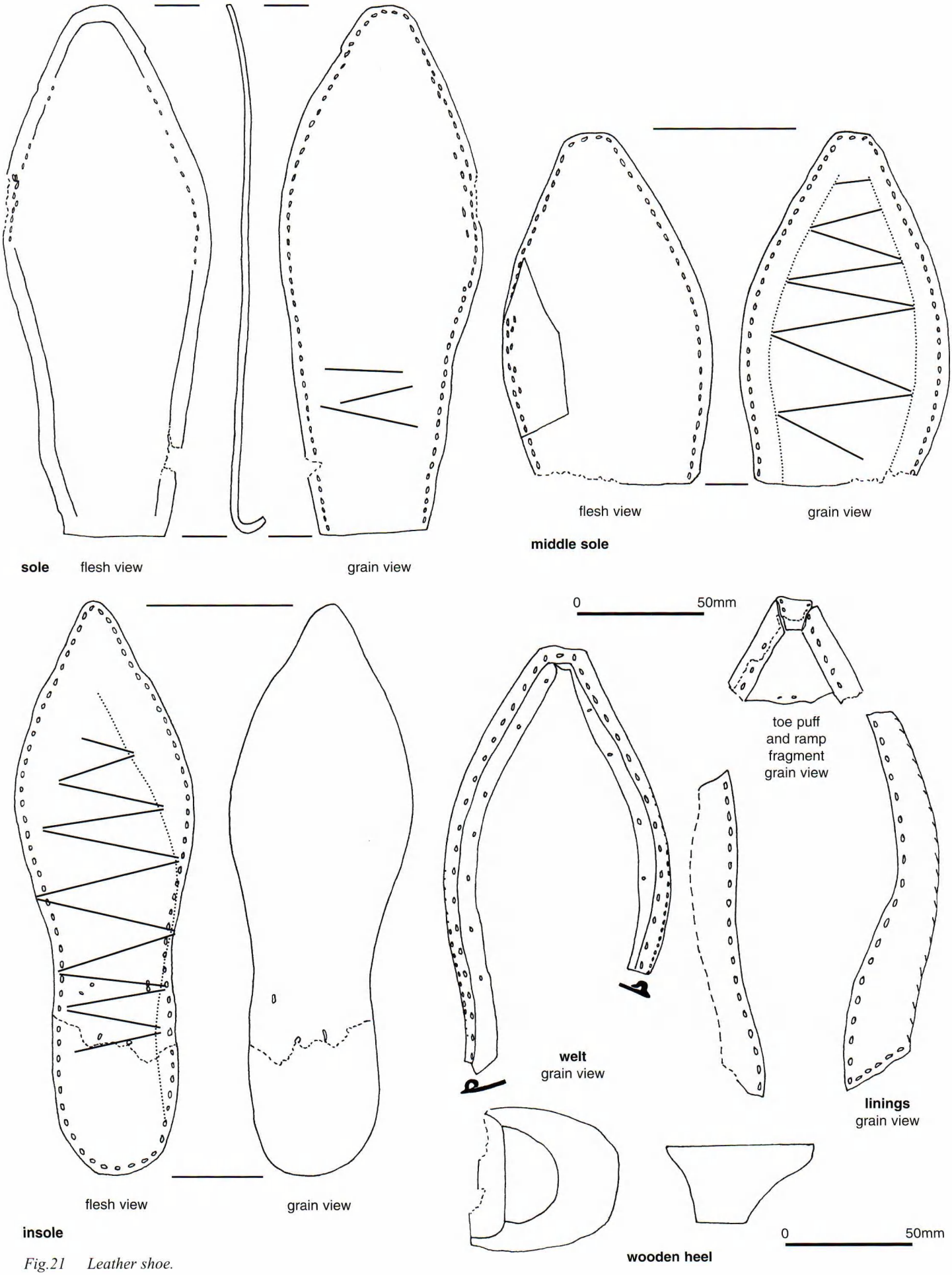


Fig.21 Leather shoe.

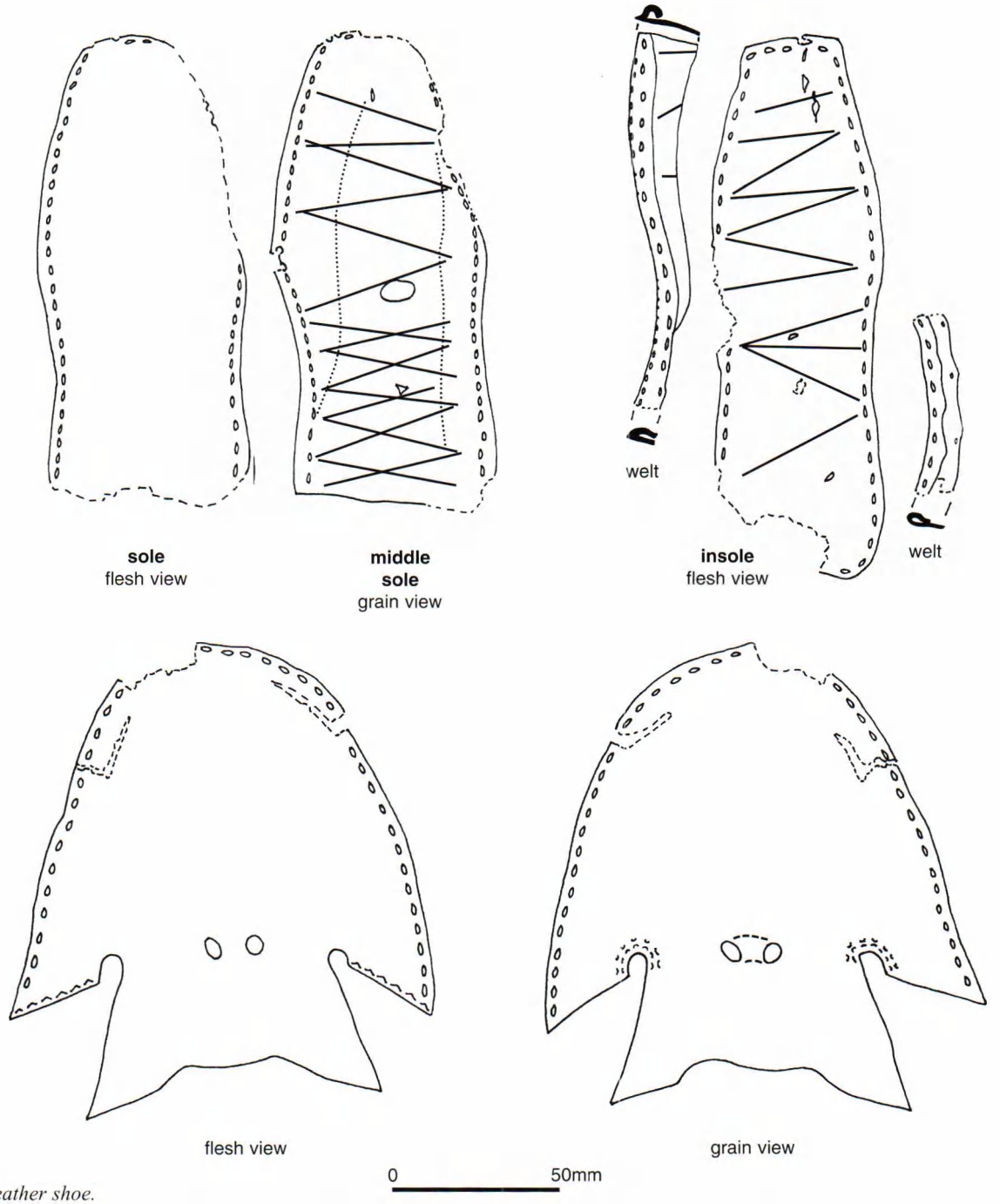


Fig.22 Leather shoe.

occasionally with small pieces of middle packing, and an outer sole, are known collectively as the bottom. The bottom parts of the Welsh Back shoes all have a grain/flesh seam around the edge, the sole seam being protected within a stitching channel. The edges of the insoles are curved over slightly to accommodate the grain/flesh seam. The rolled welts have braced edges; the impression of bracing thread is visible on the underside of the insoles and the corresponding faces of the middle soles and soles. The Welsh Back shoes differ slightly from the majority of shoes of this welted construction in having a grain/flesh insole seam rather than an edge/flesh seam. Two examples (Figs.21 & 22) have the flesh side of the sole placed to the ground perhaps to provide better grip than the more usual grain side. Surviving parts indicate that the shoe uppers comprised a vamp and two quarters supported internally with a heel stiffener at centre back.

Shoe styles

The shoes have square toes; while those for men and children are wide (Figs.22, 23 & 24 and SF10, SF14, SF15, SF17), the toe of a woman's shoe (Fig.21) has a narrow, 'chisel' ended square toe, the vamp supported internally by a toe puff. The woman's shoe (Fig.21) has a wooden 'louis' heel, *c*30mm (1 inch) high, made of willow (Salix spp.). The wooden heel originally had a leather cover and a separate top piece, now missing. The sole was moulded down the heel breast. Few upper shoe parts that are diagnostic of shoe

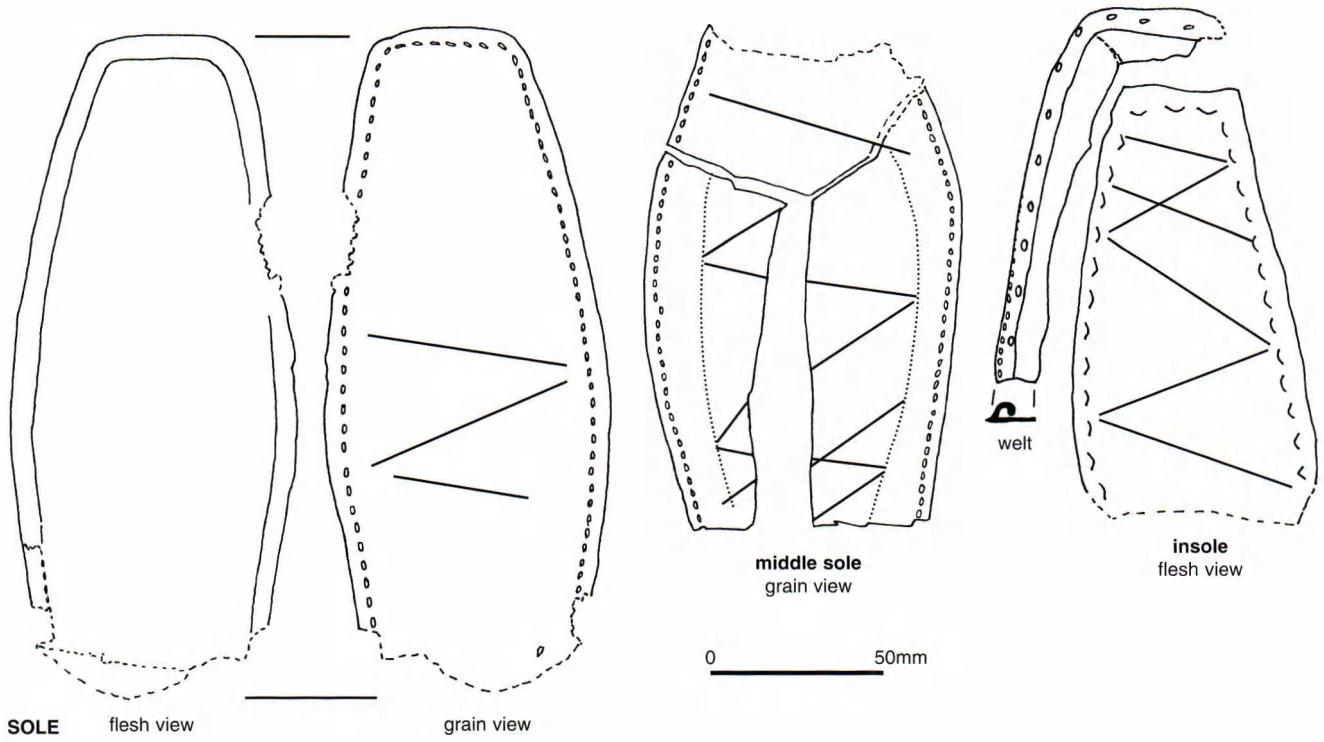


Fig.23 Leather shoe.

style were recovered. The two vamps that survive (Fig.22 and SF9) come from closed-sided, latchet tie shoes with high tongues and straight, side seams. These vamps, and the other upper fragments found, are of suede leather with the flesh side outward and grain side inward to the foot. They are made of bovine leathers either cattle hide or calfskin; one shoe lining of sheepskin, a heel stiffener (SF7), was also noted. The best-preserved shoe is for a child (Fig.22). It has a calfskin vamp, flesh outward, with the top edge of the high tongue decoratively shaped and intended to turn over in wear to form a fashionable 'Cupid's bow' revealing a decorative lining in a contrasting colour (Swann 1982, 21). No indication of a lining has survived on this example. The fashionable nature of this shoe, particularly as it was for a child, suggests the wearer's family was not poor. The presence of tie holes might suggest that the shoe was worn by a young girl, as women continued to wear laced rather than buckled shoes long after it had become usual for men to fasten their shoes with buckles (Swann 1982, 20).

The leather from the well

The bottom of a man's shoe (Fig.24) was found in the backfill (context 592) of a possible well. The shoe is of the same welted construction as those from the dumping but has a broad square toe and a large D-shaped stacked leather heel 34mm (*c*1? inches) high secured by a series of iron nails. It comes from practical, working footwear, in contrast perhaps to those from the dump deposits that are of more elegant shape.

The waste leather

Small groups of waste leather were found, along with shoe parts, in dump deposits in Period II. The waste leather includes primary waste, that is discarded areas of unusable hide, secondary waste from pattern cutting and tertiary waste resulting from the trimming away of excess material during shoe manufacture or repair. A small number of intersectional cutting pieces, characteristic of shoemaking waste, produced when cutting out shoe soles, were present in contexts 599, 603 and 642. A small amount of scrap leather, with all edges torn and no diagnostic features, likely to be broken shoe parts, was also present. The waste leather was primarily of bovine leather, mainly cattle hide with a smaller amount of calfskin; only two pieces of sheep/goatskin were noted. All but two leather-bearing dumps (contexts 567, 642) from Period II contain both waste leather and worn shoe parts (see Table 2). The nature of both the shoe leather and the waste leather suggest that these groups represent the small-scale clearance or sweepings from a cobbler's workshop or shops. As it is difficult to be certain how old the shoes were before they were finally thrown away they cannot be used to date the individual dumping episodes more precisely.

A single piece of primary waste cut from the edge of a cowhide was found on the surface of the natural alluvium (context 598) in the pre-development phase, Period I: it is likely to come from one of the dumping episodes above, in Period II.

Catalogue of illustrated items

Fig.21 Welted shoe, with narrow, square toe, made straight but worn on right foot. Bottom with sole moulded down the heel breast, middle forepart with piece of middle packing, and complete insole. Insole, middle and sole have

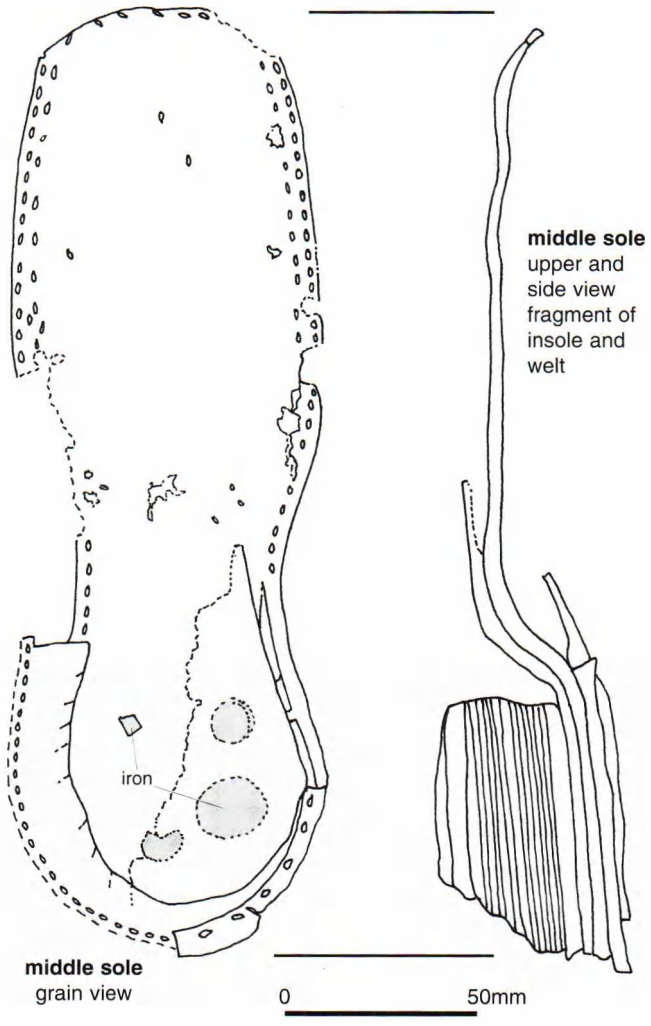


Fig.24 Leather shoe.

a grain/flesh seam, the sole seam lying within a stitching channel and the impression of bracing thread visible. Rolled welt around the forepart. Worn wooden 'louis' heel with pronounced curved back edge and straight breast, originally with a leather cover, now missing. Toe puff with fragment from toe area of upper adhering, vamp linings, that from the right side complete with closed grain/flesh side seam and whip stitched top edge. Leather cattle hide. Insole length 230mm, tread width 72mm, heel height *c*30mm (*c*1 inch). Adult size 2(34). (SF22, context 683, Period II).

Fig.22 Welted tie shoe with square toe, made straight but worn on right foot. Bottom with sole, middle and insole all with a grain/flesh seam, impression of bracing thread visible on middle and insole. Two pieces of rolled welt, the larger also with impression of bracing. Vamp, worn at the toe, with long, shaped tongue and edge/flesh stitched side seams with tunnel stitching on the interior (grain) to reinforce the junctions of seams and tongue. Pair of fastening holes with impression from the lace on the interior. Quarters with fastening latchets now missing. Leather calfskin 1.48mm thick flesh outward. Insole length 167mm, tread width 53mm. Child's size 8(26). (SFs23-6 and 51-2, context 692, Period II).

Fig.23 Welted shoe with square toe, made straight but worn on left foot. Forepart of bottom, torn across the waist. Insole with edge/flesh seam, three pieces of middle and sole with grain/flesh seam, sole seam within a stitching channel. Impression of bracing thread visible. Three pieces of rolled welt (one illustrated) and fragment of upper (not illustrated). Leather cattle hide. Surviving insole length 126+mm, tread width 71mm. Adult size. (SFs19-21, 46-50 and 57, context 681, Period II).

Fig.24 Welted shoe bottom with square toe, made straight but possibly worn on the right foot. Fragmentary sole, complete middle and fragment of right side of the insole seat and with a grain/flesh seam. Iron staining suggests a repair had been attached to the tread area with nails. Rolled welt fragment present around the seat area. Large D-shaped stacked leather heel, the original number of heel lifts now uncertain, four iron nails secure the heel from the sole seat, others attach the top piece. Heel height 34mm (*c*1? inch). Middle sole length 260mm, tread width 88mm. Estimated Adult size 6(39). (SF8, context 592, Period II).

Iron Slag and Related Debris

By Lynne Keys

A small assemblage (almost 9.5kg) of iron slag and other high temperature debris was recovered by hand and from samples during excavations at the above site. Most came from the dumping of domestic and industrial waste to raise the level of the marsh in the late 17th to early 18th centuries (Period II). Very little related to other periods.

For this report the slag was examined by eye and categorised on the basis of morphology. Each slag type in each context was weighed and details are given in Table 3.

Most of the slag had been broken up and so could not be identified with either smelting or smithing activity. For this reason it is referred to as undiagnostic slag. A tiny amount of hammerscale was present in the deposits but only reached its final deposition as a result of adhering to soil on other slags. Vitrified hearth lining and cinder (the inner, highly fired, portion of hearth lining) do not necessarily represent industrial activity; they could equally have come from domestic hearths.

The Period II deposits are very mixed with most of the iron slag having fragmented during removal from its original position and dumping on the marsh. The contents and the state of the material are what one would expect from dumps gathered from various places, thrown together in carts for transportation, and then dumped onto the ground.

PALAEOENVIRONMENTAL EVIDENCE

Introduction

One of the aims of the excavations at Welsh Back was to provide evidence for the early utilisation and nature of the local environment of the area adjacent to the river-bank, known as 'The Marsh' and later development of Queen

Context	No.	Identification	Weight (g)
531		Cinder	14
539		Cinder	136
550	1	Undiagnostic	20
568	4	Cinder	260
568	4	Hammerscale (flake and occasional tiny spheres)	0
568	4	Run slag	88
568	4	Runs	112
568	4	Undiagnostic	4412
587		Glass furnace fragment	316
592	24	Clinker and ferruginous concretion	56
592	24	Undiagnostic	52
594	11	Undiagnostic	510
600	8	Fired clay	56
600	8	Undiagnostic	430
603	17	Cinder	306
603		Glass waste	4
605	10	Undiagnostic	912
639	19	Undiagnostic	156
652	27	Undiagnostic	52
681	31	Undiagnostic	1510
711	35	Undiagnostic	44
711	35	Vitrified hearth lining	4
		Total weight	**9450**

Table 3 Quantification of the slag.

Square in the 18th century. A monolith sample was taken from the alluvial and pre-development ground surface for examination of the sediments, diatoms and pollen. Bulk samples for plant and animal remains were recovered from deposits associated with the dumping of industrial and domestic waste that seems to have occurred from the late 17th century.

Sediment Assessment

By Jen Heathcote

Introduction

A key question posed at the site was whether the surface of the marsh was deliberately cleared prior to building and dumping of the landfill or whether construction took place directly on the natural marsh surface. It was proposed that more detailed examination of the boundary between the landfill/construction deposits and the underlying alluvium may refine the interpretation of the nature of the ground surface prior to construction.

Deposits: field description

In the field, the deposits were interpreted as comprising late 17th-/18th-century landfill overlying alluvial clay (Table 4).

Keeley (2003) suggested that the good organic preservation and limited mottling in context 598 (alluvial clay) indicated the sequence had remained waterlogged until relatively recently, and that therefore it was likely that the area was marshland, with a high water-table and subject to periodic flooding.

The monolith sample

It should be noted that the descriptions of the contexts as seen in the monolith tin do not coincide exactly with those recorded in the field (cf. Table 4). This is particularly evident when descriptions of structural properties are compared, the variability being due to the much smaller sample being examined in the monolith tin.

Examination of the monolith in the laboratory led to further sub-division of contexts 637 and 684 although this did not affect the overall interpretation of their formation and significance (Table 5).

Context 637 had three clear sub-units defined by differences in texture and inclusions. However, they all represent anthropogenic deposits (landfill) and simply represent slight variations in the make-up of these, as would probably have been seen across the site and the variability does not have any clear interpretative significance.

Context 684 had two sub-units, both of which were alluvial silty clays that were differentiated principally on the basis of subtle colour variations and the degree of iron mottling. These properties suggest that the lower part of the alluvial sequence (684.2) has experienced a greater degree of weathering than the upper (684.1) indicated by the more strongly developed iron oxides present both as mottles and background colour. This could be because either:

a) 684.2 is much older and has been well drained for a significant portion of its life prior to the deposition of 684.1 (and 598), or
b) the sequence is more likely to have been affected by flooding (from the nearby River Avon) and standing surface water than a permanently high water-table.

Returning to the question about whether the surface of the marsh (598) was deliberately cleared prior to building and dumping of the landfill (637) or whether construction took place directly on the natural marsh surface. Examination of the boundary between these two contexts showed that although it is sharp (typically indicative of an eroded surface), there is a very limited amount of intrusion of context 637 (fine particles only) down into the underlying material up to *c*5mm depth. This suggests that when the

Context	Description	Interpretation
637	reddish brown (2.5YR 4/4) sand containing abundant stones *very sharp boundary*	17th-century landfill
598	dark grey (10YR 4/1) clay; firm; plastic; moderate medium angular blocky structure; organic matter in root channels and amorphous black coatings on ped faces; rare fibrous roots and fine, distinct rusty mottles in root channels; stone-free	alluvial clay
684	greyish brown (10YR 5/2) clay with patches of organic matter, including plant macrofossils	alluvial clay
685	light brownish grey (10YR 6/2) clay with rare large root channels lined with black amorphous organic matter	-

Table 4 Field description of Area 3 west sequence.

Depth in monolith tin (cm)	Context & sub-unit	Description	Interpretation
0 – 10	637.1	very dark brown, organic clayey sand; very coarse granular structure; friable; few (5%) small to medium stones; common small (<5mm) inclusions of coal, charcoal, oyster shell (complete & fragmented) & rare large fragments of clay pipe *graded, smooth boundary*	anthropogenic deposits (landfill)
10 – 18	637.2	very dark brown, organic sandy clay; massive (lacking structure); few (2%) small stones; *graded, smooth boundary*	anthropogenic deposits (landfill)
18 – 32	637.3	very dark brown, organic clayey sand; massive (lacking structure) structure; friable; few (5%) small to medium stones; common large (>10mm) inclusions of iron, slate, sandstone, woody organic material & small fragments coal, clay pipe *sharp, micro-wavy boundary*	anthropogenic deposits (landfill)
32 – 35	598	grey silty clay; massive (lacking structure); rare fine (<1mm) iron mottles; few decomposed plant macrofossils; stone-free; few, very small (<1mm) fragments coal/coke/charcoal randomly embedded; upper 5mm shows limited intrusion of overlying material (Unit 637.3) in very small irregular pockets *graded boundary*	fine-grained alluvial deposits (marsh)
35 - 41	684.1	grey silty clay; differentiated from overlying unit by gradual darkening of deposit moving down sequence; massive; few iron mottles *graded boundary*	fine-grained alluvial deposits
41 - 50	684.2	greyish brown silty clay with common iron mottles; massive	fine-grained alluvial deposits

Table 5 Description of monolith sample from Area 3 west.

landfill was deposited, it was onto sediment that was quite firm and reasonably consolidated. As the mixing appears very limited, it probably occurred due to settling of the deposits and overburden pressure.

Had the landfill been deposited onto soft, unconsolidated, water-saturated material (such as those deposits likely to be found at the marsh surface) then a greater degree of mixing would be expected (*e.g.* pockets and involutions) with features that would have been clearly identifiable in the field. This mixing would have occurred both as a consequence of the weight of material deposited and the traffic of people trampling across the site depositing the landfill. The surface of water-saturated sediment has little internal strength so that poaching and churning of sediment through trampling are to be expected.

Consequently, based on the characteristics of the boundary between the landfill and the underlying deposit, evidence suggests the marsh deposits were truncated prior to dumping/construction.

Microfossil evidence from the monolith sample

Two samples for pollen and diatom analysis were removed from the 50cm monolith described above (Table 5). They were taken from context 684.1 (38-39cm), within the marsh sediments and context 598 (33-34cm) from the upper most surface of the marsh at its junction with the overlying anthropogenic material.

Diatom Analysis

By Nigel Cameron

Methods

Diatom preparation followed standard techniques: the oxidation of organic sediment, removal of carbonate and clay, concentration of diatom valves and washing with distilled water. Two coverslips, each of a different concentration of the cleaned solution, were prepared from each sample and fixed in a mountant of a suitable refractive index for diatom microscopy (Naphrax). Counts were made under phase contrast illumination at a magnification of x1000. Several diatom floras and taxonomic publications were consulted to assist with diatom identification, including Hendey (1964), Hustedt (1930-1966) and Krammer & Lange-Bertalot (1986-1991). Diatom species' salinity preferences were classified using the halobian groups of Hustedt (1953, 1957: 199), these are summarised below:

1. Polyhalobian: >30 g l^{-1}
2. Mesohalobian: 0.2-30 g l^{-1}
3. Oligohalobian - Halophilous: optimum in slightly brackish water
4. Oligohalobian - Indifferent: optimum in freshwater but tolerant of slightly brackish water
5. Halophobous: exclusively freshwater
6. Unknown: taxa of unknown salinity preference.

Diatom data were entered into the Amphora database at ECRC, UCL and data manipulation and plotting carried out using a number of programs (Tran, Tilia, Tiliagraph, TiliagraphView). The principal source used for diatom ecological data was Denys (1992).

Results and Discussion

The quality of diatom preservation in both samples was poor, particularly in the lower sample (38-39cm). However, for each sample by making several traverses of the coverslip with the best particle concentration it was possible to make diatom counts. Consequently the counting sum for the lower sample (38-39cm) was very low (48 valves) whilst 213 valves were counted from the upper (33-34cm) sample. Valve preservation was fairly poor with many broken specimens and many fragments showing evidence for dissolution. These observations are consistent with the idea that the sedimentary environment was within a marsh where the pools would have been subject to periodic drying-out that would cause damage to the diatom record. A total of 24 taxa were identified in the sample from 33-34cm, whilst only 13 taxa were identified in the lower sample.

The diatom assemblage from 38-39cm (context 684.1) is dominated by polyhalobous (marine) diatoms, which

comprise over 65% of the total valves counted. The most common species are the marine planktonic species *Paralia sulcata* (25%) and *Podosira stelligera* (>20%) along with non-planktonic *Rhaphoneis* spp. (*Rhaphoneis minutissima, Rhaphoneis surirella* and possibly *Rhaphoneis amphiceros*) (17%). A number of other marine and marine brackish taxa are present including the planktonic species *Cymatosira belgica* (2%), *Actinoptychus undulatus* (2%) and *Pseudopodosira westii* (2%). The brackish water mud-surface species *Diploneis aestuari* is present (4%) and there are a number of species identifiable only to generic level such as *Coscinodiscus* sp. (most probably marine or marine brackish forms). Fragments of *Pinnularia* sp. (4%) and *Hantzschia amphioxys* (4%) are aerophilous, freshwater diatoms that would have inhabited the marsh surface but these are poorly preserved.

The diatom assemblage from 33-34cm (context 598) is dominated by a mixture of polyhalobous (marine diatoms comprise almost 50% of the assemblage) and halophilous (brackish to freshwater) diatoms (mesohalobous and halophilous diatoms represent approximately 45% of the assemblage). The most abundant taxon is the benthic, halophilous diatom *Navicula cincta* (38%). This benthic species is most likely to represent the autochthonous diatom flora, although its survival in relatively high numbers also reflects the robust nature of the valves. Another relatively common diatom from similar habitats is the halophilous, benthic species *Navicula meniscus* (4%). As well as the presence of brackish water diatoms, the influence of tidal waters is shown by the abundance of allochthonous marine planktonic diatoms, particularly *Paralia sulcata* (29%). Other marine taxa include *Rhaphoneis* spp. (*c*10%) *Cymatosira belgica* (4%), *Podosira stelligera* (4%) and *Actinoptychus undulatus* (2%). Freshwater diatoms are present in small numbers and for the most part these are aerophilous diatoms. These semi-terrestrial diatoms include *Hantzschia amphioxys*, *Ellerbeckia arenaria* and *Pinnularia* spp.

When compared with the sample from 38-39cm, the upper sample (33-34cm) appears to show a decrease in salinity with a reduced component of marine diatoms and the establishment of halophilous benthic diatoms at the site. Freshwater epiphytic diatoms are rare in both samples, however, there is a small component of the epiphyte *Cocconeis placentula* in the uppermost sample.

Conclusions

1. The quality of diatom preservation is poor in both samples and is particularly poor in the basal sample. However, it has been possible to make diatom counts for both levels in the sequence.

2. Both samples show the influence of tidal water with a large component of allochthonous marine diatoms and autochthonous brackish water diatoms.

3. Freshwater diatoms are present only at low percentages and these species are mostly aerophilous diatoms that would have been associated with a marsh surface. Despite optimal growth in freshwater, these species often have wide salinity tolerances.

4. The increased numbers of halophilous diatoms in the top sample are benthic diatoms that inhabit submerged mud surfaces. Freshwater epiphytes are uncommon.

Pollen

By Heather M. Tinsley

Methodology

The samples for pollen analysis were prepared using standard techniques (Moore, Webb and Collinson 1991). Initial digestion in dilute potassium hydroxide was followed by sieving, then treatment with cold hydrofluoric acid for a week. Samples were washed with hot 10% hydrochloric acid and acetolysed, stained with safranin and mounted in glycerol. Two tablets of *Lycopodium* spores were added to each sample at the start of the preparation in order to allow pollen concentration to be assessed (Stockmarr 1971). Samples were counted at a magnification of x400 with x1000 magnification used for critical determinations. The aim of the assessment was to count at least 100 pollen grains from each sample level in order to assess the potential of the material for full pollen analysis. In the sample from 38-39cm the pollen concentration was so low, and preservation so poor, that this total could not be reached. The count was stopped when 60 of the added *Lycopodium* spores had been recovered and 10 traverses of the slide completed. In addition to pollen, fern spores were counted and the presence of other non-pollen palynomorphs (foraminifera, algal spores) was noted. The abundance of charcoal was estimated by counting the numbers of charcoal particles greater than 40µm long on two traverses of each slide.

Plant nomenclature follows Stace (1991), which was also used as a source for ecological information. Pollen types generally follow Bennett (1994) and a note on pollen types is included below.

Results

The results are shown in Table 6, which lists the number of grains of each pollen taxon counted. The taxa have been grouped into the woody types (trees and shrubs) and the herb taxa. The table gives an indication of the habitat preferences of the herbaceous taxa – open grassland and disturbed ground, heathlands, tidal and freshwater marshes. These ecological groupings are only a guide to habitat type; they should be treated flexibly as some taxa have members which grow in a variety of habitats.

Sample 38-39cm (context 684.1)

Pollen concentration in this sample was extremely low, only 9 grains were identified in 10 traverses of the slide. The preservation of those grains identified was very poor.

Two grains of *Corylus*-type were noted, with one grain

range of species vary between these samples, there is an overall similarity in the assemblages observed with plants of economic value as well as taxa relating to a number of habitat groups.

The difficulty in the interpretation of dumped deposits such as these is that they are likely to have originated from many sources as well as having an *in situ* element representing the local environment. As already seen from the range of components included in these contexts the material used for the raising of the ground level came from a number of sources utilising both building and industrial waste as well as domestic debris, but it seems unlikely that anything came from any great distance.

Much of the evidence from the plant macrofossil remains preserved in the more organic deposits relates to 'useful' plants including food plants, mainly remains of fruit, cereals and herbs with other plants of economic value, like hemp and flax. One of the best examples comes from context 682, an orange-brown silty clay containing a high degree of organic matter overlying the natural alluvium and is thought to be one of the earliest of these dumped deposits. Approximately 95% of the 430ml sample float consisted of the remains of grapes (*Vitis vinifera*) with an estimated 1,400 pips and 1,400 stalks. In addition there were many examples of the partially decayed fleshy fruits, suggesting that the whole fruit had been discarded. The extent of the context excavated covered an area about 2 x 1.5 metres and was up to 15cm thick, so must have contained a substantial quantity of fruit, perhaps representing a spoilt cargo of grapes dumped onto the quay. Other food remains include apple (*Malus*), bullace/damson (*Prunus domestica* ssp *insititia*), fig (*Ficus carica*) and melon (*Cucumis melo*), with achenes of hop (*Humulus lupulus*), possibly representing brewing waste. Further useful plants include hemp (*Cannabis sativa*) and flax (*Linum usitatissimum*). Further examples of fruits, nuts, herbs and vegetables were recovered with several exotic species which will be discussed more fully below.

Other plants recorded are common weeds of disturbed ground, some often associated with human activity and refuse tips such as elder (*Sambucus nigra*) and nettle (*Urtica dioica*) perhaps where some nitrogen enrichment of the soil had occurred. Others are annual opportunists, which appear where conditions are suitable, for example in bare or trampled ground. Annuals include fat-hen (*Chenopodium album*) and fig-leaved goosefoot (*Chenopodium ficifolium*) which both like fertile-rich soils, orache (*Atriplex*), common chickweed (*Stellaria media*), prickly sow-thistle (*Sonchus asper*) and knotgrass (*Polygonum aviculare*), the latter occurring particularly in open bare ground.

While this group of disturbed ground taxa, which occurs at low levels in many of the samples, is likely to represent the local patchy vegetation cover of the quayside, other groups of plants associated with arable cultivation and grassland are likely to have been incorporated with dumps of domestic waste. Cereal crop weeds include corncockle (*Agrostemma githago*), stinking chamomile (*Anthemis cotula*), corn marigold (*Chrysanthemum segetum*) and black-bindweed (*Fallopia convolvulus*). Examples of waterlogged cereal chaff such as rachis internodes of rye (*Secale cereale*) and free-threshing wheat (*Triticum*), with occasional finds of charred wheat, barley (*Hordeum*) and oat (*Avena*) grains, suggest the importation of straw deposits into the city for fodder or stabling.

Weeds more typically associated with grassland including buttercup (*Ranunculus acris/repens/bulbosus*), selfheal (*Prunella vulgaris*), daisy (*Bellis perennis*) and greater plantain (*Plantago major*), may have originated from hay and like the straw have been brought into the city for a variety of reasons. With the mixed nature of the ground surface at Welsh Back during this phase it seems unlikely that either of these habitat groups represent the *in situ* vegetation. Unlike many of the medieval sites examined along the Avon, there are no indications at Welsh Back for marsh or bankside flora to suggest the 'natural' vegetation of the riverside, again suggesting the character of the riverside had been altered by human activity.

Discussion

The bulk of the plant macrofossil remains preserved in these dumps of material at Welsh Back are 'useful plants', representing either food remains or other plants of economic value. The list below shows the range of plants identified, some of which seem likely to represent goods imported from abroad.

Plants of economic value

Native fruit/nuts	***Imported fruit/nuts***
Corylus avellana (hazel)	*Citrullus vulgaris* (water melon)
Fragaria vesca (wild strawberry)	*Cucumis melo* (melon)
Juglans regia (walnut)	*Ficus carica* (fig)
Malus sp (apple)	*Vitis vinifera* (grape)
Prunus avium (wild cherry)	
Prunus domestica ssp *insititia* (bullace/damson)	
Prunus spinosa (sloe)	
Rubus sect *Glandulosus* (bramble)	
Herbs/vegetables/pseudo-cereal	***Cereals***
Anethum graveolens (dill)	*Avena sp* (oat)
Beta vulgaris (beet)	*Hordeum* (barley)
Brassica/Sinapis/Raphanus (mustard/rape/cole)	*Secale cereale* (rye)
Coriandrum sativum (coriander)	*Triticum* sp (wheat)
Fagopyron esculentum (buckwheat)	
Other economic plants	***Other non native plants***
Cannabis sativa (hemp)	*Cnicus benedictus* (blessed thistle)
Humulus lupulus (hop)	
Linum usitatissimum (flax)	

Much of the evidence comes from remains of fruit, many of which have stones or pips which are robust and therefore preserve well. Some of this would have been readily available locally and may have been home grown or gathered from the wild. Blackberries are unlikely to have been cultivated and would have been gathered from woodland edge or hedgerow together with hazel (*Corylus avellana*), perhaps for sale by street vendors or in local

	PERIOD	II									
	Context no:	682	568	592	594	599	600	603	605	618	
	Sample no:	32	4	24	11	33	8	17	10	21	
	Sample size (litres)	60	90	60	90	60	60	90	60	60	
	Size of float (ml)	430	60	20	50	130	240	210	15	30	
WATERLOGGED PLANT REMAINS											**HABITAT**
RANUNCULACEAE											
Ranunculus acris/repens/bulbosus	Meadow/Creeping/ Bulbous Buttercup	7		3	5	22		6			DG
FUMARIACEAE											
Fumaria sp	Fumitory						1				CDH
CANNABACEAE											
Cannabis sativa L.	Hemp	9		1	2	2					Introd
Humulus lupulus L.	Hop	10		6	20	31		67		2	HS, fen-carr
MORACEAE											
Ficus carica L.	Fig	1		1	1	4	1	5	1	1	#
URTICACEAE											
Urtica dioica L.	Common nettle					1					DGHWp
Urtica urens L.	Small nettle			6							CDl
JUGLANDACEAE											
Juglans regia L.	Walnut					6 frags					Introd
BETULACEAE											
Corylus avellana L. (nut frags)	Hazel			16	8	11			1	5	HSW
CHENOPODIACEAE											
Atriplex spp	Orache	1				1		2			CDn
Chenopodium album L.	Fat-hen			2					1		CDn
CARYOPHYLLACEAE											
Agrostemma githago L.	Corncockle							1 frag			C
Cerastium sp	Chickweed					1					CDG
Lychnis flos-cuculi L.	Ragged Robin							1			GMSw
Silene latifolia/dioica	White/Red Campion	2						3			Cdlo/WH
Stellaria media (L.)Villars	Common Chickweed			4		1		1			CD
POLYGONACEAE											
Fagopyrum esculentum Moench	Buckwheat							5			Introd
Fallopia convolvulus (L.)A.Love	Black-bindweed							4			CD
Persicaria maculosa Gray	Redshank							1			Cdo
Polygonum aviculare L.	Knotgrass					1		3			CD
Rumex spp	Dock			1				2			DG
CUCURBITACEAE											
Cucumis melo L.	Melon	1									Introd
BRASSICACEAE											
Brassica/Sinapis/Raphanus spp	Mustard/Rape/Cole etc							5			CD#
Coronopus squamatus (Forsskaol) Asch	Swine Cress			1							Do
ROSACEAE											
Fragaria vesca L.	Wild Strawberry					2		1			HSW#
Malus sp (pips)	Apple				2			1			# HS
ROSACEAE											
Fragaria vesca L.	Wild Strawberry					2		1			HSW#
Malus sp (pips)	Apple				2			1			# HS
Malus sp (endocarp)	Apple					2 frags		2 frags			# HS
Potentilla erecta (L.)Raeusch	Tormentil			1							EGa
Prunus avium (L)L.	Wild Cherry							1			HW- edge
Prunus domestica ssp. *insititia* (L.)Bonnier & Layens	Bullace/Damson			1	1	3					HSW
Prunus spinosa L.	Blackthorn							1		1	HSW
Rosa spp	Rose				1						HSW
Rosaceae indet (thorn)	Rose family							1			HSW
Rubus sect. *Glandulosus* Wimmer & Grab	Bramble						3	1			DHSW
FABACEAE											
Medicago c.f. *minima* (L.)L.	Bur Medick	2									Sandy heaths/ dunes
VITACEAE											
Vitis vinifera L. (pips)	Grape-vine	1500+			1	1					#
Vitis vinifera L. (stalks)	Grape-vine	1500+									#
LINACEAE											
Linum usitatissimum L.	Flax	1									#
Linum sp	Flax					1 frag					
APIACEAE											
Anethum graveolens L.	Dill					1					CD#
Apium graveolens L.	Wild Celery										ws
Chaerophyllum aureum L.	Golden Chervil							6			G
Torilis sp	Hedge-parsley	1									CGHWo

Table 7 Plant macrofossil remains.

VERBENACEAE											
Verbena officinalis L.	Vervain					1					G, bare ground, c
LAMIACEAE											
Lamium purpureum L.	Red Dead-nettle							1			CD
Prunella vulgaris L.	Selfheal					4					DG
PLANTAGINACEAE											
Plantago major L.	Greater Plantain			1							CDG-o
CAPRIFOLIACEAE											
Sambucus nigra L.	Elder		2	1	4	10	164	1	6		DHSWn
ASTERACEAE											
Anthemis cotula L.	Stinking Chamomile					1		1			CDh
Bellis perennis L.	Daisy			1							G
Chrysanthemum segetum L.	Corn marigold							2			Ca
Hypochaeris sp	Cat's-ear					1					GW
Sonchus asper (L.)Hill	Prickly Sow-thistle	1				1					CD
Sonchus oleraceus L.	Smooth Sow-thistle					2					CDW
Taraxacum sect *Ruderalia*	Dandelion					2					D, G/dw
CYPERACEAE											
Carex spp	Sedge	1		1	2	3	1				GMPRW
POACEAE											
Poaceae indet	Grass			1		11		2			G
Secale cereale (rachis internode)	Rye					1					#
Triticum sp (tough rachis internode)	Wheat					3					#
CHARRED REMAINS											
Grain											
Hordeum sp (hulled)	Hulled barley						1				#
Hordeum sp (hulled/straight)	Hulled barley		1								#
Hordeum sp (grain)	Hulled barley						1	2			#
Weeds											
RANUNCULACEAE											
Ranunculus acris/repens/bulbosus	Buttercup						1				DG
ROSACEAE											
Malus sp (pip)	Apple						1				#HS
Prunus domestica ssp. *insititia* (L.)Bonnier & Layens	Bullace/Damson				1 frag						HSW
FABACEAE											
Trifolium/Medicago spp	Clover/Medick						1				G
VITACEAE											
Vitis vinifera L.	Grape-vine						1				#
CAPRIFOLIACEAE											
Sambucus nigra L.	Elder						2				DHSWn
OTHER REMAINS											
Charcoal			*	*	*	*	*	*	*	*	
Wood fragments		*		*	*	*		*	*	*	

	PERIOD	**II**								**IV**	
	Context no:	**620**	**634**	**639**	**641**	**642**	**652**	**681**	**711**	**550**	
	Sample no:	**14**	**16**	**19**	**25**	**23**	**27**	**31**	**35**	**1**	
	Sample size (litres)	30	100	60	100	90	25	90	60	60	
	Size of float (ml)	20	200	170	5	120	10	180	80	50	
WATERLOGGED PLANT REMAINS											**HABITAT**
DENNSTAEDTIACEAE											
Pteridium aquilinum (L.)Kuhn (pinnules)	Bracken					2 frags					WEad
RANUNCULACEAE											
Ranunculus acris/repens/bulbosus	Meadow/Creeping/ Bulbous Buttercup	4	7			10		22	3		DG
Ranunculus sardous Crantz	Hairy Buttercup	1									CDW
Ranunculus sceleratus L.	Celery-leaved Buttercup							1	1		MPR
FUMARIACEAE											
Fumaria sp	Fumitory									1	CDH
CANNABACEAE											
Cannabis sativa L.	Hemp		13			2	1	7			Introd
Humulus lupulus L.	Hop	19	371	2		17	6	126	12		HS, fen-carr
MORACEAE											
Ficus carica L.	Fig			27		37	1	4	3		#
URTICACEAE											
Urtica dioica L.	Common nettle	4			5		2	1			DGHWp
Urtica urens L.	Small nettle				1						CDI
JUGLANDACEAE											
Juglans regia L. (frags)	Walnut	9	6			2	1	49	9		Introd
BETULACEAE											
Corylus avellana L. (nut frags)	Hazel		22	2	1	36	21	132 + 2 whole	22 + 1 whole		HSW

Table 7 (continued).

CHENOPODIACEAE											
Atriplex spp	Orache		1		2	2		2			CDn
Beta vulgaris L.	Beet					2 frags					Introd #
Chenopodium album L.	Fat-hen							1			CDn
Chenopodium ficifolium Smith	Fig-leaved Goosefoot				4						CD
CARYOPHYLLACEAE											
Agrostemma githago L.	Corncockle							4 frags			C
Cerastium sp	Chickweed							1			CDG
Silene latifolia/dioica	White/Red Campion		1			1		2			Cdlo/WH
Stellaria media (L.)Villars	Common Chickweed	1	1			1					CD
POLYGONACEAE											
Fagopyron esculentum Moench	Buckwheat							1	2		Introd
Fallopia convolvulus (L.)A.Love	Black-bindweed	3	1 frag				1	2			CD
Polygonum aviculare L.	Knotgrass			4				2	1		CD
Rumex acetosella L.	Sheep's Sorrel							2			Ho, CG, a,sandy
Rumex spp	Dock					2		1			DG
CUCURBITACEAE											
Citrullus lanatus (Thunb.)Matsum & Nakai	Water Melon					1					Introd
Cucumis melo L.	Melon					2					Introd
BRASSICACEAE											
Brassica/Sinapis/Raphanus spp	Mustard/Rape/Cole etc							2			CD#
ROSACEAE											
Crataegus monogyna Jacq	Hawthorn					1					HSW
Fragaria vesca L.	Wild Strawberry	1				1		2	1		HSW#
Malus sp (pip)	Apple					3		3			# HS
Malus sp (endocarp frags)	Apple		1					2			# HS
Potentilla erecta (L.)Raeusch	Tormentil					1					EGa
Prunus avium (L)L.	Wild Cherry		1				1				HW- edge
Prunus domestica ssp. *insititia* (L.)Bonnier & Layens	Bullace/Damson		2					3	3		HSW
Prunus spinosa L.	Blackthorn					2	1	2	2		HSW
Rosaceae indet (thorn)	Rose family					2					HSW
Rubus sect. *Glandulosus* Wimmer & Grab	Bramble		1	3	2			2			DHSW
AQUIFOLIACEAE											
Ilex aquifolium L. (leaf frags)	Holly		13								WHS
VITACEAE											
Vitis vinifera L. (pips)	Grape-vine		1	33		1	2	231	2		#
Vitis vinifera L. (stalks)	Grape-vine							7			#
APIACEAE											
Anethum graveolens L.	Dill							2			CD#
Chaerophyllum sp	Chervil	1 frag						1 frag			G
Coriandrum sativum L.	Coriander						2	1			Introd
Heracleum sphondylium L.	Hogweed					1 frag					DG
SOLANACEAE											
Hyoscyamus niger L.	Henbane			1							D
Solanum dulcamara L.	Bittersweet				2						DHS
LAMIACEAE											
Galeopsis tetrahit L.	Common Hemp-nettle	1									CW
Lamium purpureum L.	Red Dead-nettle							1			CD
Lycopus europaeus L.	Gipsywort							6			FRw
Prunella vulgaris L.	Selfheal	1				7		6			DG
PLANTAGINACEAE											
Plantago major L.	Greater Plantain							3	2		CDG-o
CAPRIFOLIACEAE											
Sambucus nigra L.	Elder		1	2	2			1		4	DHSWn
VALERIANACEAE											
Valerianella dentata (L.)Pollich	Narrow-fruited Cornsalad				1						CD
ASTERACEAE											
Anthemis cotula L.	Stinking Chamomile		1					3			CDh
Arctium sp	Burdock							1			D,W-clearings
Bellis perennis L.	Daisy					2					G
Centaurea c.f. *scabiosa* L.	Greater Knapweed							1			G, rough ground
Chrysanthemum segetum L.	Corn marigold							1			Ca
Cirsium/Carduus spp	Thistle		1		1			1			DGMW
Cnicus benedictus L.	Blessed Thistle		1								Introd
Lapsana communis L.	Nipplewort		2			1					DH

Table 7 (continued).

Sonchus asper (L.)Hill	Prickly Sow-thistle		1								CD
Taraxacum sect *Ruderalia*	Dandelion		1						4		D, G/dw
CYPERACEAE											
Carex spp	Sedge	1	2		3	5		5	1		GMPRW
POACEAE											
Poaceae indet	Grass					16		15	3		G
Triticum sp (tough rachis internode)	Free-threshing Wheat					1					#
CHARRED REMAINS											
Grain											
Avena sp	Oat			2						1	#
Hordeum sp	Hulled Barley			1	1						#
Hordeum sp	Barley			1							#
Triticum sp	Free-threshing Wheat			2							#
OTHER REMAINS											
Beetles/Fly pupae						*					
Charcoal		*	*	*		*	*	*	*	*	
Moss			*								
Wood fragments		*	*			*	*	*	*		

Habitats

C: Cultivated/Arable
D: Disturbed
E: Heath/Moor
F: Fens/Bogs
G: Grassland
H: Hedgerow
M: Marsh
P: Ponds, ditches - stagnant/slow flowing water
R: Rivers, streams
S: Scrub
W: Woodland

a: acidic
c: calcareous
d: dry soils
h: heavy soils
l: light soils
n: nitrogen rich soils
o: open habitats
p: phosphate rich soils
s: coastal
w: wet/damp soils
#: cultivated plant/of economic importance

Table 7 (continued).

markets. Strawberry (*Fragaria vesca*) plants may have been brought in from woodland habitats and cultivated in gardens, although larger fruited American species were grown in Britain by the early 17th century. They were either eaten fresh or dressed with sugar and red wine (Stuart 1984). Apples (*Malus*) may have come from garden or orchard areas and were found as both pips and endocarp fragments suggesting the deposition of whole cores. *Prunus* fruitstone morphology is rather variable although from the differences in size and shape it is suggested that both damson and bullace (*Prunus domestica* ssp *insititia*) occurred here. These may have been cultivated or gathered from the wild with sloe (*Prunus spinosa*) and wild cherry (*Prunus avium*), the stones of these fruits being more easily identifiable. During the medieval period, fresh fruit seems to have been rarely eaten. It was more common to cook fruit such as apples, damsons and cherries with sugars and spices to be made into pies, or boiled and pulped for use in puddings (Wilson 1984, 311).

The large deposit of grapes seems most likely to represent a spoiled cargo of imported raisins or currants probably from southern Europe and would have been cheap enough to have been widely consumed. Vineyards were expensive to run and wine was more commonly and cheaply imported from France and southern Europe, although verjuice (grape vinegar), used in cookery and pickling, was produced from English grapes (McLean 1981). Figs (*Ficus carica*) are also likely to have been imported as dried fruit and were well known for their laxative properties as well as having a tenderizing effect on meat (Stuart 1984). Fig seeds are tough, easily preserved seeds and with about 800 pips per fruit, their presence in several samples is not surprising.

Walnut (*Juglans regia*) was widely planted from the 17th century (Stuart 1984, 251) in kitchen gardens and was valued for its timber and its nuts, which were commonly pickled. The oil from ripe nuts was also used for cooking and in oil lamps. Several seeds of melon (*Cucumis melo*) were identified. Melon was at first imported from France as a rarity, but by the end of the 17th century they were cultivated where frames and hotbeds existed, often associated with larger houses (Stuart 1984, 162) and therefore would not have been eaten by all. The occurrence of a single seed of water melon (*Citrullus vulgaris*) is also interesting. Water melon is a native of drier, open areas of tropical and sub-tropical Africa but was also cultivated in the Mediterranean and from post-Columbian times in the Americas so may have originated from any of these sources (Vaughan & Geissler 2000, 128).

Macrofossil evidence for herbs and garden vegetables are often very limited as the plants are harvested before they set seed and other parts of the plant are less easily identified. However, several contexts have provided evidence for two herbs, coriander (*Coriandrum sativum*) and dill (*Anethum graveolens*), used mainly for their aromatic seeds and would have been grown in gardens for both their culinary and medicinal properties. Seeds of brassicas (Brassicaceae) are difficult to separate, but those identified here as *Brassica/Sinapis/Raphanus* may include cultivated vegetables such as turnip, swede or cabbage. Two fruit fragments of beet (*Beta vulgaris*) may be from either wild or cultivated beet; the latter seems most likely at this period and its occurrence in this assemblage with the other

cultivated plants. This group includes Swiss chard and spinach beet, used for their leaves and beetroot favoured for its red-coloured roots, the latter boiled and served with oil and/or vinegar providing colour for fresh salads (Wilson 1984).

Evidence of cereal crops is limited to occasional charred grains of wheat, barley, rye and oat (although the latter may be a crop weed) which appear to be ubiquitous on many medieval sites previously examined in Bristol. Whether these represent food remains or simply occur with straw brought into the city, evidenced by the waterlogged remains of arable weeds and occasional waterlogged cereal chaff is uncertain. However, cereals would have been processed and milled into flour at one of the city's mills, such as the nearby Redcliff Mill (BUAD 784M), which may explain the paucity of cereal grain in these deposits.

The large distinctive seeds of buckwheat (*Fagopyron esculentum*) occur in three of the late 17th-century contexts. This annual, belonging to the knotweed (Polygonaceae) family, originated in Central and North-east Asia and was widely cultivated in Britain between the 16th and 19th centuries (Grigson 1975). The grain contains about 75% starch (Vaughan & Geissler 2000) and was used as a poor man's flour, made into pancakes, porridge and biscuits, as well as food for cattle and hens. One of the rare records of buckwheat comes from a macrofossil from 18th century Shrewsbury (Greig 1996).

Other plants of economic value include hemp (*Cannabis sativa*), hop (*Humulus lupulus*) and flax (*Linum usitatissimum*). Both hemp and flax are fibre plants, hemp producing a coarse fabric and used in rope production, its seeds also crushed for oil. Flax seeds (linseed) were also used as a flavouring for bread and was cultivated for its oil and fibre to make into linen.

While hops occur naturally in hedges and thickets, they were also widely cultivated and used for flavouring beer from the 16th century, enabling the beer to be kept longer. The young shoots could also be eaten as a spring vegetable, like asparagus. It was thought to have many medicinal properties including an aid for sleeplessness with the use of hop pillows, as well as a source for yellow dye for wool, with the retted stems also made into a course cloth for sacking (Stuart 1984, 138). The frequent remains found in these quayside dumps may represent deliberate gathering, cultivation or the residues from brewing.

Two further seeds recorded here are not native to the Bristol region. Blessed Thistle (*Cnicus benedictus*), recovered from context 634 is an annual with a single yellow flower of disturbed ground, fields and waysides and is a native of Europe and Asia, its leaves, stems and flowers used today in herbal preparations. It has a historical use for digestive problems including wind, constipation, liver and gall bladder diseases. Blessed thistle is recorded in the 'Flora of the Bristol Region' (Green *et al* 2000, 256) as not native to the Bristol region and was last recorded here in 1897. Clement and Foster (1994) suggest that some alien plants which have become established in Britain originally arrived as cornfield contaminants in cargoes of foreign grain from Europe which may explain its occurrence here. Similarly the last recording for bur medick (*Medicago minima*) around Bristol was in 1941 and although this is a native species it is more commonly found in eastern England in sandy heaths and dunes. With its hooked fruits this may have arrived with wool imported from that area of the country.

Previous investigations where plant macrofossil remains have been preserved, especially along the course of the River Avon, have largely been from medieval contexts, post-medieval deposits rarely preserving an organic component or truncated by later development. Evidence from nos. 5-7 Welsh Back (Jones 2002), includes food remains deposited into pits and as spreads of waste onto the Marsh during the 12th century. The fill of one cut feature included a similar range of wild and cultivated fruits as in the post-medieval dumps at nos. 42-44 Welsh Back with the addition of medlar (*Mespilus germanica*). Grapes, figs and walnut represent possible foreign imports. Fruit was again the most commonly recovered evidence for food remains from early to mid 14th-century contexts at Redcliff Backs (Jones 2000). One context was rich in sloes and other fruit embedded in mineralized coprolite, infested with the intestinal parasites roundworm and whipworm, so is likely to represent sewage. An array of cultivated fruit includes plum varieties, cherry, raspberry, apple and pear which may have come from garden plots and orchards, with figs, grapes and walnuts again the only possible imports.

However, by the late 17th/early 18th centuries imports into the port of Bristol were more far-reaching and while there was a continuation of the trade with traditional European markets, transatlantic trade to North America and the West Indies and the west coast of Africa brought in an increasing volume of produce (Lobel & Carus-Wilson 1975). Several examples of exotics found in the deposits on Welsh Back, not recorded from Bristol before, include melon from the Mediterranean, or perhaps homegrown, and water melon, possibly from western Africa, while the unusual occurrence of blessed thistle, from the Mediterranean region may have arrived as a contaminant with an imported grain crop.

Giorgi (1997, 197-213) summarizes the evidence for diet in late medieval and early modern London and shows that a wide range of plant foods was available there, which expands over the time span studied due to increased importation of exotic cargoes. Native fruits and nuts are the most commonly found food remains throughout, perhaps due to the more robust nature of their stones and pips and concentration of these remains in the rubbish and cess-pits examined. However, the range of imported fruit is greater showing trade with both the Old and New World. It is therefore surprising that more exotics have not been discovered in Bristol, itself an important trading centre by this period, but as Greig (1996) states, more suitable contexts with preserved remains need to be examined to add to existing knowledge of imports from historical records.

Mammal and Bird Bone

By Lorrain Higbee

Introduction

A small assemblage of animal bone was recovered from the site, the total quantity being 686 fragments. The majority (*c*82%) of this material was recovered by hand during the normal course of excavation and a small proportion was retrieved from sample residues after processing by wet-sieving. Animal bone was recovered from all periods, with the exception of Period III; this includes pre-development of the site (Period I) right through to the mid 19th/21st century (Period VII). The bulk of the assemblage comes from late 17th-/early 18th-century (Period II) deposits of industrial and domestic waste dumped to raise the ground surface. The diagnostic portion of the assemblage, *c*68% of the total, is quantified in Table 8 and the following discussion concentrates on the relatively large collection from Period II deposits.

Methods

A detailed account of the methods used throughout the analysis of this assemblage can be found in the site archive. In summary, a selective suite of mammalian skeletal elements were recorded as standard and used in counts following Davis (1992); these are termed 'parts of the skeleton always counted' (or POSACs). In addition to the POSAC's selected by Davis the following elements were also counted: horn cores with a complete transverse section and the occipital condyle part of the skull. The recording of avian bones was limited to bones from the wing and leg but these were only recorded if they retained one complete articular surface. The above methods of quantification reduce the over-recording of fragmented material to give a truer indication of species proportions. The number of specimens identified to species (or NISP) was calculated for all taxa but the minimum numbers of individuals (or MNI) were only calculated for the most common taxa.

Any non-countable elements from less common species or elements displaying butchery marks, pathological changes or of anomalous size were also recorded but not used in counts. Vertebrae (centra) were recorded to general size categories (*e.g.* cattle-size or sheep-size). This information was collected in order to take account of epiphyseal fusion but again this information was not used in counts. Non-countable bones are shown in parenthesis in Table 8.

The following methods were also employed during analysis of the assemblage: Boessneck (1969); Cohen and Serjeantson (1996); Davis (1987); Dobney and Reilly (1988); Grant (1982); O'Connor (1989): Payne (1973, 1985 and 1987); Payne and Bull (1988); Silver (1969); Von den Driesch and Boessneck (1974) and Von den Driesch (1976).

Results

Recovery, preservation and taphonomy

The majority of the assemblage was recovered by hand during the normal course of excavation; hand-recovered assemblages are typically biased in favour of large, easily observed fragments and therefore the bones from larger species (Payne 1992). This imbalance is to some extent addressed by the material retrieved from sample residues; this portion of the assemblage includes a wider range of smaller species such as birds, rodents and fish (see Nicholson below).

The majority (*c*89%) of fragments are in a good state of preservation; anatomical details and other surface marks (e.g. butchery marks) are clear and easily observed although a small proportion of fragments show signs of weathering and abrasion. Most of these poorly preserved fragments have exfoliated cortical surfaces ranging in severity from moderate flaking of the outer surface, to extensive loss of cortical bone typically associated with deep cracks and a brittle, powdery texture. There are no single concentrations of poorly preserved fragments, indeed they occur in the same deposits as well preserved fragments, which could indicate that some fragments are residual, having been reworked from earlier deposits, or that single deposits include refuse from different sources, some of which might have been exposed to weathering for longer periods.

Butchery marks were recorded on 36% of fragments. Chop marks are more common than cut marks and the majority occur on cattle and sheep/goat bones. This evidence is detailed below.

Gnaw marks were recorded on only 10% of bone fragments; there are no discrete concentrations of gnawed bones, and this suggests that whilst a small number of bones were exposed to scavenging before burial, the majority were rapidly buried.

Species frequencies

A complete list of the species identified from all periods is given in Table 8. In common with most archaeologically recovered animal bone assemblages from Britain the majority of identified fragments from this site belong to the three main livestock species. Cattle, sheep (or goat) and pig together account for *c*82% of the total number of specimens identified to species (or NISP). Horse, dog, cat, chicken, and possibly goose and duck are the only other domestic species identified and together account for *c*6% of NISP. Wild species such as rabbit, fallow deer (*Dama dama*), rat (*Rattus* spp.), partridge (*Perdix perdix*), small wader (similar in size to snipe), and passerine form *c*12% of NISP. In addition, a human vertebra was also recovered.

Looking more specifically at the relative importance of the three main livestock species by NISP (Table 9) and minimum number of individuals (or MNI Table 10) for Period II, sheep is the most abundant species accounting for 60% of NISP and 55% of MNI, followed by cattle at 27% NISP and 28% MNI, and pig at 13% NISP and 17% MNI. Comparison of the NISP figures with similar data from other contemporary sites in Bristol (see Table 9) suggests that this basic trend is comparable to that recorded for the assemblage from late 17th-century to 1720 deposits at Cheese Lane (Higbee 2002) but contrasts with the general

Taxon	Period I	II	IV	V	VI	VII	Total
human		1					1
cattle	1	61 (37)	2 (2)	6 (4)	2 (3)	1	73 (46)
Sheep/goat	1 (2)	116 (25)	2	11 (2)	4 (1)	2	136 (30)
Sheep	1	21 (1)			1		23 (1)
pig		29 (12)	2	1	1	2	35 (12)
horse		2 (1)					2 (1)
dog		1 (1)					1 (1)
cat		2					2
fallow deer		4 (1)					4 (1)
rabbit		25* (2)	1				25 (2)
rat		1					1
chicken		10 (1)			1	1	12 (1)
duck		1 (1)					1 (1)
goose		2 (2)					2 (2)
partridge		2					2
small wader		2					2
passerine		4					4
cattle-sized	(1)	(15)		(3)	(2)		(21)
sheep-sized		(20)					(20)
Total	**3 (3)**	**284 (119)**	**7 (2)**	**18 (9)**	**9 (6)**	**6**	**327 (139)**

Table 8 Number of specimens identified to species (or NISP) by period. Figures in parenthesis are non-countable bones after Davis (1992).

trend noted for assemblages from St Thomas Street (Higbee 2003 and 2004) and Portwall Lane (Higbee 2006), which generally have higher percentages of cattle and fewer sheep. The general trend recorded for the assemblage from early post-medieval (Period 3) deposits at Union Street (Higbee forthcoming) is different again, with near equal proportions of sheep and cattle. The reasons for this variation are many and varied but include factors such as sample size, recovery methods, preservation and more complex issues such as differences in dietary provisioning or preferences between socio-economic groups. For example, the Union Street site is relatively high status whilst St Thomas Street and Cheese Lane were low status industrial areas. Having said this however, the domestic waste dumped at the Welsh Back site is likely to have come from a wide area of the city and different socio-economic groups, and this might explain the presence of high status food items such as deer. When the NISP figures from all six sites are combined the general trend is for near equal proportions of cattle and sheep, and a low frequency of pig, which fits well with general national trends for urban post-medieval assemblages (Albarella *et al* 1997, 22).

Main livestock species

The body part distribution for livestock species is presented in Table 10. This indicates that most parts of the beef and mutton carcass are represented although some bones are under-represented and these are generally small bones from the ankle and foot, and loose teeth, suggesting that recovery methods and small sample size have skewed the results. Beef and mutton joints from the forelimb are more numerous than any other cut of meat, whilst cuts of pork from both the fore and hind limb are equally abundant. This stands in contrast to the general body part distribution recorded for the relatively high status site from Union Street (Higbee forthcoming) where better quality cuts of beef and mutton were common. Overall the general body part distribution suggests that the bone waste from Period II dump deposits derives from domestic food waste, drawn from households with a preference for dressed foreshanks of beef and mutton. The body part distribution also suggests that dressed pork carcasses were occasionally procured.

The available age data for livestock species is presented in Tables 11 and 12 (and Appendix 1 which is available for study in the site archive); in most instances the data from tooth eruption and wear is of limited analytical value due to the small number of teeth in the assemblage. Epiphyseal fusion data (Table 12) for cattle suggests that the majority were slaughtered early in their second year of life before fusion of the distal metapodials, tibia and tuber calcis (*i.e.* intermediate fusion category) and this is consistent with national and regional trends (Maltby 1979; Gidney 1991a and 1991b; Dobney *et al* 1996; Albarella *et al* 1997; Higbee forthcoming). The slaughter of relatively young cattle generally reflects a shift in the agricultural economy from arable to pasture, the replacement of cattle with horses as plough animals and the growing demand for meat and dairy products from urban populations. Since it was no longer necessary to keep large numbers of adult cattle they could be

Site	Date	sheep/goat NISP	sheep/goat % NISP	cattle NISP	cattle % NISP	pig NISP	pig % NISP
Welsh Back	Period II (L17th-1709)	137	60	61	27	29	13
Union St	Period 3 (15th-M/L17th)	251	44	239	42	79	14
Cheese Lane	Phase 2 (L17th-1720)	132	60	67	30	23	10
26-28 St Thomas St	Phase 2 (Late med/ Early post-med)	130	29	266	58	58	13
30-38 St Thomas St	(17th/18th century)	86	39	106	47	31	14
Portwall Lane	Phase 2B (17th/E18th)	157	42	177	47	42	11
Total	**all six sites**	**893**	**43**	**916**	**44**	**262**	**13**

Table 9 Comparison of the relative frequency of livestock species by number of specimens identified to species (or NISP) for five post-medieval assemblages from Bristol.

	Period II Cattle			Period II Sheep/Goat			Period II Pig		
Skeletal element	**NISP**	**MNI**	**%**	**NISP**	**MNI**	**%**	**NISP**	**MNI**	**%**
Deciduous & permanent incisors	1	1	20	2	1	10			
Deciduous & permanent premolars	4	1	20	7	2	20			
M1/2	3	1	20	16	4	40	7	2	67
M3	3	2	40	5	3	30	2	1	33
Skull	1	1	20	1	1	10			
Mandible	4	2	40	9	5	50	3	2	67
Scapula	4	2	40	20	10	100	3	2	67
Humerus	8	4	60	17	9	90	3	2	67
Radius	9	5	100	18	9	90	2	1	33
Metacarpus	1	1	20	7	4	40	3	2	67
Pelvis	1	1	20	11	6	60			
Femur	2	1	20	6	3	30	4	2	67
Tibia	6	3	60	10	5	50	6	3	100
Astragalus	2	1	20	1	1	10			
Calcaneus	5	3	60	1	1	10			
Metatarsus	1	1	20	5	3	30	3	2	67
Phalanx 1	4	1	20	4	1	10			
Phalanx 2	2	1	20	3	1	10			
Phalanx 3	1	1	20				1	1	33
Total	**62**	**33**		**143**	**69**		**37**	**20**	

Table 10 Livestock species: skeletal elements by number of fragments identified to species (or NISP) and minimum number of individuals (or MNI) for Period II. Unfused epiphyses are not counted and each individual tooth within mandibles has been counted, hence the total is greater than the total NISP in table 8. The MNI has been calculated as follows: Incisors and phalanges have been divided by 8, deciduous and permanent premolars by 6, M1/2 by 4, all other elements, except metapodia, by 2. Metacarpus = (MC1 + MC2/2 + MP1/2 + MP2/4) / 2 and Metatarsus = (MT1 + MT2/2 + MP1/2 + MP2/4) / 2. Where: MC1 + complete distal metacarpus; MC2 = half distal metacarpus; MT1 = complete distal metatarsus; MT2 = half distal metatarsus; MP1 = complete distal metapodium; MP2 = half dist metapodium. % = frequency of an element expressed in relation to the most common one (by MNI).

slaughtered at a younger age, furthermore the removal of calves from their mothers to provide veal would have complemented the production of milk. Epiphyseal fusion and tooth eruption/wear data for sheep/goat indicate that a range of ages were selected for slaughter but the vast majority were adults and this also fits with general national trends and is thought to reflect the continued importance of wool to the British economy (Trow-Smith 1957). The available age data for pig is quite limited but indicates that the majority were slaughtered at a relatively young age and this is the usual trend for most periods. Pigs are essentially a meat animal, mature quickly and are relatively fecund.

Butchery marks were noted on 58% of cattle bones, 41% of sheep bones and 46% of pig bones from Period II deposits. Chop marks made with a cleaver are more common than knife cuts. However, the technique of jointing out carcasses can leave few, if any marks. Most of the butchery relates to dismemberment and reduction of the beef and mutton carcass and as such was recorded at major joints. One of the main characteristics of the butchery is the incidence of cattle and sheep/goat vertebrae that have been chopped in half along the dorso-ventral plane. This technique for splitting carcasses into left and right sides is thought to have become more common with the advent of professional butchers. Vertebrae split in this way have been recorded from a number of medieval and post-medieval assemblages from Bristol as well as elsewhere in the region and nationally, for example York (see Bond and O'Connor 1999: 365). In addition one sheep skull had been cleaved open along its sagittal suture, and several non-countable fragments of calf skull bore similar evidence, suggesting that brain tissue was also consumed as brawn, or in the case of calf brains, in recipes such as mock turtle soup.

Biometric data is presented in Appendix 2 (available for study in the site archive) and summary descriptive statistics of the most common measurements, that is measurements with five or more cases, are presented in Table 13 where they are compared to similar data from Union Street (Higbee forthcoming). Overall the means and ranges of common measurements, mostly measurements of sheep/goat bones, compare well with similar data from medieval and post-medieval bones from Union Street. Some mean values, for example humerus BT, indicate a general size improvement from medieval stock whilst others, such as metacarpal BatF and BFd, are generally larger than those from contemporary deposits (Period 3) at Union Street. However, this aberration might be a product of the longer time scale represented by the Union Street Period 3 assemblage, which dates from the 15th to the mid/late 17th centuries.

Period II Cattle			
Fusion category	**F**	**U**	**% F**
Early	14	4	78
Intermediate	7	9	44
Late	2	11	15
Final		7	0
Period II Sheep/Goat			
Fusion category	**F**	**U**	**% F**
Early	40	1	98
Intermediate I	14	2	88
Intermediate II	18	6	75
Late	13	10	57
Final	4	12	25
Period II Pig			
Fusion category	**F**	**U**	**% F**
Early	4	2	67
Intermediate I	2	7	22
Intermediate II		3	0
Late	1	5	17
Final			

Table 11 Livestock species number and percentage of fused epiphyses for Period II. Fusion categories categories after O'Connor (1989). Fused and fusing epiphyses are amalgamated. Only unfused diaphyses, not epiphyses are counted. F = total number of fused/ing epiphyses; % = percentage of fused/ing epiphyses out of the total number of fused/ing epiphyses and unfused diaphyses (U).

Withers (or shoulder) height estimations for the Welsh Back sheep/goat range from 563mm to 710mm with a mean value of 608mm. The mean value is larger than that recorded for sheep/goat from medieval and post-medieval levels at Union Street and the size range is much more variable with larger individuals represented in the Queen Square/Welsh Back assemblage.

Other mammalian species

A small range of other mammalian species were identified from Period II deposits. They include horse, dog, cat, fallow deer, rabbit and rat. All are frequently recovered in small quantities from most urban assemblages.

Five fallow deer bones were identified: a calcaneus, humerus, two femora and a non-countable fragment of pelvis. Venison is a high status food item and its presence here is a little surprising particularly given the general characteristics of the assemblage when compared with the relatively high status assemblage from Union Street. One can only assume that domestic waste from a number of socio-economic groups was dumped at the site.

Of the other wild species identified rabbit is the most abundant and includes the remains of at least two individuals from deposit 508. A single bone from a rat was recovered from sample residues taken from deposit 634 and represents a general pest that might have scavenged on the domestic waste dumped at the site.

Birds

A small range of bird species have also been identified and chicken is by far the most common. Other species include

Taxon	**Tooth**	**C**	**V**	**E**	**H**	**a**	**b**	**c**	**d**	**e**	**f**	**g**	**h**	**j**	**k**	**l**	**m**	**n**	**o**	**p**	*									
cattle	dp4								2																					
	p4									1	1																			
	m1	1	1												1															
	m1/2																													
	m2																													
	m3										1	1	1																	
pig	dp4																													
	p4																													
	m1									1	3																			
	m1/2																													
	m2							1													2									
	m3	1	1																											
		C	**V**	**E**	**H**	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	*
sheep/ goat	dp4																		2											1
	p4							1						2	1															
	m1											1			4						1									2
	m1/2																													
	m2	2												2	4															
	m3	1								1			1	2																

Table 12 Livestock species: wear stages of individual teeth for Period I. Both teeth in mandibles and isolated teeth are included. Wear stages of cattle and pig teeth following Grant 1982 where stage "U" is considered equivalent to stage "a" and unworn isolated teeth which could have been in one of the eruption stages (C, V, E, H) are coded as "a". Wear stages of sheep/goat teeth following Payne 1973 and 1987 where unworn isolated teeth which could have been in one of the eruption stages (C, V, E, H) are coded as "0".

Site	Period/Phase	Date	Taxon	Skeletal element	Measurement	N	Min	Max	M	SD	CV
Welsh Back	II	L17th-1709	sheep/goat	Humerus	BT	15	240	301	276.4	17.41	6.2
Union Street	2	L13/14th	sheep/goat	Humerus	BT	10	251	304	272	15.9	5.8
Union Street	3	15th-M/L17th	sheep/goat	Humerus	BT	17	244	296	275	14.7	5.3
Welsh Back	II	L17th-1709	sheep/goat	Humerus	HTC	16	116	150	135.75	8.15	6
Union Street	2	L13/14th	sheep/goat	Humerus	HTC	11	126.8	147.4	135.2	6.5	4.8
Union Street	3	15th-M/L17th	sheep/goat	Humerus	HTC	20	125.7	150.4	137	7.8	5.6
Welsh Back	II	L17th-1709	sheep/goat	Humerus	SD	11	123	176	148.63	15.04	10.1
Union Street	3	15th-M/L17th	sheep/goat	Humerus	SD	12	134.7	160.5	147.5	7.4	5
Welsh Back	II	L17th-1709	sheep/goat	Metacarpal	BatF	12	246	295	268.7	16.34	6
Union Street	3	15th-M/L17th	sheep/goat	Metacarpal	BatF	22	224.8	259.7	245.5	10.1	4.1
Welsh Back	II	L17th-1709	sheep/goat	Metacarpal	BFd	12	250	275	263.5	10	3.7
Union Street	3	15th-M/L17th	sheep/goat	Metacarpal	BFd	20	223.1	254.8	243.9	8.7	3.5

Table 13 Summary descriptive statistics of common measurements (over 5 cases) for the Welsh Back assemblage compared with similar data from Union Street, Bristol (Higbee forthcoming). Where N = number; Min = minimum; Max = maximum; M = mean; SD = standard deviation and CV = coefficent of variance. All measurements are in tenths of mm.

duck (probably mallard), domestic goose, partridge, a small species of wader and an unidentified species of passerine (or small perching birds). This evidence gives some indication of the types of poultry available within the city and the general preference for domestic poultry, especially chicken, a trend that has been recorded for other Bristol assemblages.

Summary

The general characteristics of the Period II assemblage, which is derived exclusively from dump deposits, suggests that it is mostly domestic food waste from meat purchased as dressed joints. Certain aspects of the assemblage, such as the relative frequency of livestock species, their kill-off pattern, size range and the general pattern of butchery evidence is similar to contemporary assemblages from other sites in Bristol and accords well with national trends for post-medieval assemblages from large urban areas.

Fish Remains

By Rebecca A. Nicholson

Introduction

A quantity of fish bone was recovered from the residues of bulk samples. All samples containing fish remains derived from deposits of domestic and industrial debris, dumped in order to consolidate and raise the land prior to the construction of houses in what became Queen Square. These dumped deposits dated to Period II at the site (late 17th century to *c*1709). Of the 10 samples considered here, only one, from context 711, proved to be rich in fish remains. In general, few bones were recovered from the remaining samples (from contexts 568, 594, 603, 605, 618, 634, 639, 652, 641 and 681). Full identifications are given in Table 14, with taxonomic nomenclature following Wheeler 1978.

Identifications

Bones and scales were identified to species, or other taxonomic level where appropriate, using the author's personal comparative collection. Almost 400 bones were considered identifiable, but this number included bones such as those of the branchial arch and fins, which would not normally be identified but were in this case because they clearly derived from a single fish from context 711. Where species identification could not be confirmed, the bones from context 711 were recorded as large gadid, even though they were almost certainly from cod.

Where possible, fish size was reconstructed using measurements from reference specimens of known length and weight. The cod bones from context 711 were suitable for measurement, and here the measurement used was the width of the premaxilla ascending process (after Jones 1991). In all other cases, fish size was subjectively assessed by comparison with fish bones from fish of known size in the comparative collection. Where sizes are indicated for gadid fish (fish of the cod family, Gadidae) the following sizes apply: tiny (under 0.2m length), small (0.2-0.4m), medium (0.4-0.7m), large (0.7-1m), extra-large (over 1m). For flatfishes, gurnard and sea bream: small (under 0.3cm,) medium (0.3-0.4), large (over 0.4m). Bones in context 711 were very well preserved, but those from the other samples were generally in poorer condition. Full records are available in the site archive.

The Assemblage

Context 711, sample 35

Of the 394 identified bones, most derived from a minimum of two large cod (*Gadus morhua*) and five herrings (*Clupea harengus*). At least one of these fish was around 80cm long, based on measurements taken from the premaxilla. Other bones derived from cod of similar length, and many bones appeared likely to be pairs. In addition to the identified and counted bones, there were a large number of bone fragments which were not counted but which were likely to have been cod. Bones from other taxa were few and included individual vertebrae from right-sided flatfish

(Pleuronectidae), sea bream (Sparidae) and sandeel (Ammoditidae). The bones were generally in very good condition, and hence it was possible to see that the consistent loss of part of one or both parapophyses (transverse processes) from most of the cod precaudal vertebrae and several of the caudal vertebrae was due to butchery rather than post-depositional decay. This damage, probably inflicted by a sharp knife, demonstrated that the fish had been split, rather brutally, along the saggital plane, during filleting or, more probably, removal of the backbone prior to drying with or without salt. In this scenario, the head and precaudal vertebra would be discarded while many of the caudal vertebrae and appendicular bones (*e.g.* the cleithra, supercleithra and pot-temporals) remained in the dried product. Butchery marks on one cleithrum and on several branchiostegal rays support this interpretation. The presence of abdominal, thoracic and caudal vertebrae as well as cranial, appendicular and fin bones may indicate the presence of at least one complete, fresh, fish. However, the numerical dominance of caudal over precaudal vertebrae (61:18) suggests that at least some of the cod remains represent a dried and possibly salted product. The sea bream represented by a single vertebra and a scale was a large individual, in excess of 40cm long. Only the red sea bream (*Pagellus boragaveo*), pandora (*Pagellus erythrinus*) and the black sea bream (*Spondyliosoma cantharus*) are common in waters around south-west Britain. The right-sided flatfish vertebra was from a relatively small plaice (*Pleuronectes platessa*), flounder (*Platichthys flesus*) or dab (*Limanda limanda*).

Context 681, sample 31
This sample contained 17 clupeid bones, most of the bones were probably from herring (*Clupea harengus*), but at least one maxilla was identified as sprat (*Sprattus sprattus*). All the bones were in excellent condition, but three vertebrae were fused together and in these and in three other examples the vertebral centrum was compressed. Fish represented by single bones include a small flatfish and a small eel, a single sea bream scale was also identified.

Context 652, sample 27
This sample contained only one identifiable bone, a vertebra probably from a juvenile sea bass (*Dicentrachus labrax*).

Context No.	568	605	594	634	603	639	618	641	652	681	711	
Sample No	4	10	11	16	17	19	21	25	27	31	35	Grand Total
Eel										1		1
Sprat										1		1
Herring				2							221	223
Herring/Sprat		1								18		19
Cod											98	98
Gadid											66	66
Hake								1				1
?Bass									1			1
Gurnard							1					1
Sea Bream										1	2	3
Plaice/Flounder/Dab			1	1	1	2		1			2	8
Flatfish	1									1		2
Unidentified								1		0	4	4
Grand Total	1	1	1	3	1	2	1	3	1	22	394	430

Table 14 Identification of fish bone by context.

Context 641, sample 25
Only three vertebrae were identified, one from a hake (*Merluccius merluccius*) of around 60cm, the other from a right-sided flatfish of around 35-40cm. An additional vertebra was considered unidentifiable.

Context 618, sample 21
A single gurnard (*Triglidae*) vertebra.

Context 639, sample 19
Two caudal vertebrae from small right-sided flatfish, probably flounder, were identified.

Context 634, sample 16
Three vertebrae, from herring and a small right-sided flatfish.

Context 603, sample 17
A single small flatfish vertebra, probably from flounder.

Context 594, sample 11
A single vertebra, probably from a flounder of 35-40cm long.

Context 605, sample 10
A single clupeid (Clupeidae: herring or sprat) vertebra.

Context 568, sample 4
A single small flatfish vertebra.

Discussion
Fish assemblages from medieval and post-medieval deposits in Bristol have proved to contain a diverse fish fauna, generally representing local fishing (Nicholson 2000, 2001, 2004). Cod tends to dominate most medieval and post-medieval fish assemblages in terms of the weight of edible meat represented (Locker 2001), and at Welsh Back cod is indeed the most commonly represented fish in terms of numbers of bones. Many of the cod bones from context 711 are likely to have originated from the same individuals, however, which had probably been processed locally. The remains seem to include both processing waste and stored fish. Cod, ling and, in south-west Britain, hake were widely consumed both as fresh and as dried and salted fish (stockfish or saltfish). Dried fish, along with salted and pickled herrings, provided a reliable foodstuff which could be traded inland and stored for later use.

During the medieval and later centuries a range of fish were imported into Bristol: herring and saltfish, as well as other fresh fish were imported from Ireland. A range of other species of fresh fish were also marketed having been caught locally in seas around the coasts of south-west Britain (Carus-Wilson 1951), and this is likely to be the source of the gurnards, sea breams and some flatfish. Eel would have probably been trapped in the River Avon or its tributaries, the small size of the eel bone here indicates an immature fish. Elvers are particularly common in the Bristol Channel, and some of these fish remain in the estuary for several

years, while others move upstream and spend the next few years in fresh water (Muus and Dahlstrøm 1974, 84). The relatively small size of the flatfish suggests that these fish were captured very close to the shore, possibly by the use of a shore net or a many hooked line laid across the beach at low tide. Several bones were probably from flounders, which, like eels, are commonly found in estuaries and even tolerate fresh water.

Mollusca

By David H. Keen

Introduction
The mollusca were supplied as individual shells either hand picked during excavation or from sieve residues. With only a few exceptions the mollusca came from the Period II deposits. The taxonomic nomenclature follows Seaward (1982).

The molluscan assemblage
The bulk of the assemblage consisted of shells of *Ostrea edulis* (common oyster) of a size to be almost certainly derived from food debris. The second most common species was *Mytilus edulis* (mussel), also probably food debris, as although the shells were mostly broken their size was such as to be suitable for eating.

Most of the other shell was composed of broken fragments (*Chlamys* spp., [scallop], *Cerastoderma edule* [common cockle]) or consisted of small species of both bivalves (*Macoma balthica*) and gastropods (*Patella aspera; Trivia arctica*) probably introduced accidentally with the oysters and mussels.

Faunal list
Bivalvia
Mytilus edulis
Period II contexts: 592, 594, 599, 600, 603, 605, 612, 618, 620, 624, 634, 641, 642, 681, 711.

Ostrea edulis
Period II contexts: 561, 564, 566, 568, 590, 592, 593, 600, 603, 605, 618, 620, 622, 624, 634, 637, 639, 641, 642, 645, 653, 657, 681, 711.
Period III context: 507.
Period IV: context 587, 589, 629.
Period V context: 529, 550, 585.

Chlamys spp.
Period II context: 592.

Cerastoderma edule
Period II context: 634.

Macoma balthica
Period II context: 711.

Gastropoda
Patella aspera
Period V context: 550.

Trivia arctica
Period II context: 634.

DISCUSSION

The archaeological work at Welsh Back had the following objectives: to study, by sampling, the environment of The Marsh before the establishment of Queen Square; to obtain evidence for the utilisation of the area before the late 17th century; to recover evidence for the development of the Square; and to record by excavation, watching brief and building survey the historic remains over the whole of the development area.

This report has shown how these objectives have been achieved. It has presented the historical and archaeological evidence for the progression of this small area of Bristol initially from a salt marsh to land used for grazing cattle and by the citizens for recreation, presumably by the introduction of some forms of basic drainage. With the expansion of the city beyond its defences in the post-medieval period the City Corporation introduced a scheme of land reclamation, involving the dumping of large quantities of rubbish over the marsh, in order to make available a considerable area for a high status housing development which generated income for the Corporation by the sale of building plots and the charging of ground rents. The Corporation specified that no 'meane sordid building' was to be erected on any of the ground, that there were to be no smiths' shops, workhouses for chandlers, public brewhouses or other tradesmen's shops and that the neighbours were to be annoyed neither by noise nor the danger of fire. These regulations did not prevent the gardens behind the houses on the Square being used for the construction of lofts and warehouses where they adjoined the new quay on Welsh Back.

This report has also presented in detail the results gained from studying the monolith sample taken from the alluvial and pre-development ground surface, the bulk samples from the late 17th-/early 18th-century land-fill deposits and the ceramic and other finds from those deposits. The environmental evidence from the samples has provided information on the transition of this area from a marsh to land suitable for housing development, on the type and origin of the materials used for the land-fill and on the trade and economy of the city at that time.

The site was located on what was an extensive area of marshland between the rivers Avon and Frome. The surface of the natural alluvium below the site was encountered at between 6.9m and 7m OD which equates with the present level of Mean High Water Spring tides on the Bristol Channel coast of 6.9m OD, while in the medieval period they are estimated to have been somewhat lower at 6.4 to 6.7m OD.

An examination of diatoms and pollen from the alluvium confirms that the area was part of a marsh where pools of water would have been subjected to periodic drying out

between flooding. The pollen present in the marsh sediments suggests that the marsh, although it may have been occasionally inundated at particularly high tides, had probably been reclaimed and was either waste land or used as poor quality grazing. This type of land use is confirmed by the documentary sources which record that the Corporation let out the land to the city's butchers for grazing during the 16th century.

The almost complete absence of finds from the alluvial clay indicates that this area of the marsh, despite its proximity to the bank of the River Avon and the city, was not occupied at any time before the late 17th century. Until the diversion of the River Frome in the 1240s the river would have separated the site from the city and even when the river was diverted the site lay outside the city's defensive walls. Nevertheless medieval activity was noted during excavations at nos. 1 to 2 King Street, to the south of the old course of the Frome, and yet further to the south a road or hard standing of possible medieval date was noted during building work to the east of Welsh Back. However, it seems that even by the 17th century occupation had not extended along the waterfront as far as the present site, some 250 metres south of the city, and that it lay outside the area used for quays. The excavation produced no evidence to confirm Millerd's description on his 1673 map of the area having been used as a 'graveing place' where ships would have been beached for cleaning and repair, although the fact that the site is set back from the river-bank may account for this.

The earliest discernible activity on the site was the presence of a number of ruts caused by sleds or the wheels of carts in the surface of the alluvium. The ruts were about 80mm wide and, where two sets of parallel ruts occurred, they were 1.5m apart. The ruts could not be dated. Examination of sedimentary characteristics from the boundary between the alluvium and the overlying landfill suggests that the top of the natural was removed down to a stable, level surface prior to the dumping of the landfill in the late 17th century. If that is the case, then the sled or wheel ruts must be associated with the removal of the top of the natural or the dumping of the first loads of rubbish used in the landfill.

The first proposals for the wholesale development of the marsh appeared in the minutes of the Proceedings of the Common Council for 1 March 1669. In order to raise the land above the boggy and sometimes flooded surface of the marsh, and perhaps to some extent to level out the land surface between the marsh and the adjacent developed area of the city, the Corporation organised the dumping of enormous quantities of material over the whole area to a depth of up to 2.5 metres. It has been suggested that approximately 250,000 tonnes of waste was deposited over 100,000 square metres of the marsh prior to development taking place.

Clay tobacco pipe evidence indicates that dumping on the Welsh Back site began after 1678 and could not have been completed until after 1700. Documentary evidence shows that the dumping of landfill material must have ceased by about 1709 when leases were granted on the properties fronting Queen Square, with the construction of the Queen Square houses beginning shortly thereafter.

At Welsh Back rubbish was dumped to a depth of up to 1.7m and the whole of the landfill material consisted of many separate deposits which varied in thickness from a few millimetres to about a quarter of a metre. Some covered very small areas while others extended across the whole of the excavation suggesting that deposits perhaps ranged from the contents of a single wheelbarrow to a number of cart loads brought from one source.

The types of material dumped and their sources seem to be very varied. They were formed from a combination of domestic and industrial waste and building rubble. The dump layers contained relatively large quantities of domestic debris: pottery, clay tobacco pipes, glass, mammal, fish and bird bones, oyster and other shells and plant remains. Most of the finds are typical of those occurring in domestic contexts on sites throughout the city during the late 17th and early 18th centuries. However, the relatively close dating of the deposits provides a useful insight into the types and sources of the household utensils and foodstuffs available to the city's inhabitants towards the end of the 17th century. The presence of plant remains in the waterlogged deposits is an especially valuable source of information on the common, and sometimes more exotic, vegetables, fruits, herbs and cereals grown locally or imported for consumption in the city. One waterlogged deposit was made up almost entirely of grape pips, stalks and the flesh of the fruit. It is possible that these were the remains of an imported cargo unloaded at a nearby quay which had either been spilt or become spoilt in transit.

The industrial waste included vitrified kiln bricks and fragments of a clay tobacco pipe muffle kiln, the latter a rare occurrence on post-medieval excavations. The pipe muffle included the inside lining of the kiln, part of a possible internal peripheral shelf and fragments of an opening towards the top of the kiln. No waste clay pipes were found with the kiln material so the identity of the pipe maker who used it is unknown, but Bristol was a major clay tobacco pipe manufacturing centre in the 17th century. The muffle exhibits the earliest recorded example of a step-type peripheral shelf in the country.

Quantities of slag, vitrified hearth lining and cinder from the dump deposits have been examined. Most of the slag had been broken up and so could not be identified with either smelting or smithing activity but it must have come from iron works in the city. The hearth lining and cinder material could have derived from industrial activity or a domestic source. In this respect the deposits at Welsh Back differ from those found during excavations in 1999 towards the centre of Queen Square, where most of the material seems to have been industrial rather than domestic waste and a large proportion of it consisted of spent coal cinders.

In 1709 leases were granted on the properties fronting Queen Square and it is assumed that construction of those buildings began shortly afterwards. Apart from the property on the corner of Queen Square and Bell Lane where the Bell Lane houses and warehouse seem to have been built as part

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THE EPONYMOUS FISH PONDS
EXCAVATIONS AT THE LOWER POND, FISHPONDS, BRISTOL.

by
Andrew Young
with contributions by Alex Brown, Jo Bruce, Nigel Cameron, Rowena Gale, Lisa Gray, Sarah Newns and Emma Tetlow

SUMMARY

A development by Kings Oak Limited for blocks of flats at a site in the Bristol suburb of Fishponds provided an opportunity to investigate the origin and character of one of the two former fish ponds, of uncertain origin, that had been filled by the early 19th century, and after which the locality is assumed to derive its name. The project initially involved a desk-based assessment and archaeological evaluation by Bristol & Region Archaeological Services (BaRAS) in 2005 followed by three small area-excavations, historical research and analysis of data, including environmental evidence, by Avon Archaeological Unit (AAU) in 2006-7.

Documentary sources indicate that the historic core of Fishponds, the area that today is bounded by Manor Road and Guinea Lane and incorporates St Mary's Church and modern Fishponds Park, lay on the edge of the former Kingswood Forest and takes its name from two large pools first depicted on a map of 1610. One of the pools depicted on the latter map, referred to as the Lower Fishpond and illustrated in detail in 1781, extended into the development area. The Lower Fishpond appears to have been filled in by 1803 whilst the subsequent 1839 Stapleton tithe-commutation map shows that both ponds had been drained and filled and a large house erected to the north side of the Lower pond.

An archaeological evaluation by BaRAS located deposits filling the Lower Fishpond in the southern portion of the site as well as the foundations of a pond retaining-wall and indications of a pond lining in addition to traces of the 19th-century building to the north. The subsequent area-excavations by AAU fully recorded the poorly preserved remains of the same building and examined a sequence of deposits filling the Lower Fishpond. A suite of environmental evidence was sought from the primary pond-silts including pollen, diatoms, insects, wood, fish bone and plant remains. The analysis of these environmental indicators, particularly plant macrofossils, pollen and diatoms, provides a consistent picture of an initially nutrient-poor pond environment with aquatic or semiaquatic plants in still or slow-moving shallow water surrounded by mainly open ground that included some cultivated and disturbed ground, the latter possibly a consequence of pond construction. The later pond-environment appeared to be less acid but continued to reflect a shallow and still or slow-moving open mineral-rich water set in a mosaic of mixed woodland copses dominated by oak and hazel plus significant open grassland, some of which was probably cultivated arable, in addition to indicators of local marginal wetland such as phragmites and ferns.

Two radiocarbon (C14) determinations obtained from hawthorn sapwood from the primary pond-silts produced identical *2 sigma* radiocarbon dates of 1280-1410AD, which suggests that the ponds are likely to have been constructed during the late medieval period, significantly earlier than the first documentary reference.

INTRODUCTION & BACKGROUND

A condition attached to planning consent granted to Kings Oak Limited for the development of three blocks of flats at a site to the rear of Nos 747 - 759 Fishponds Road,

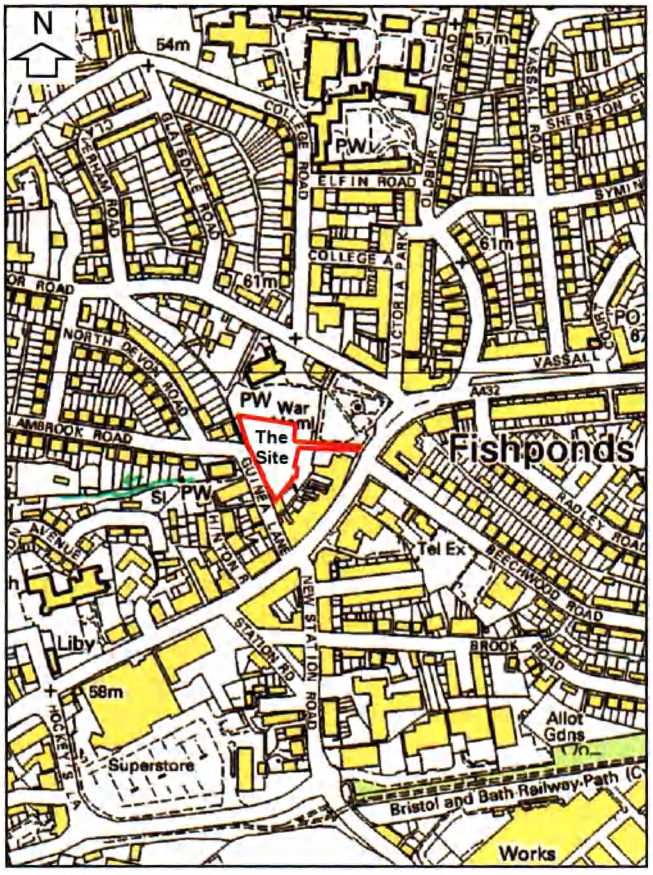

Fig.1 Location of the site, scale 1:7500.

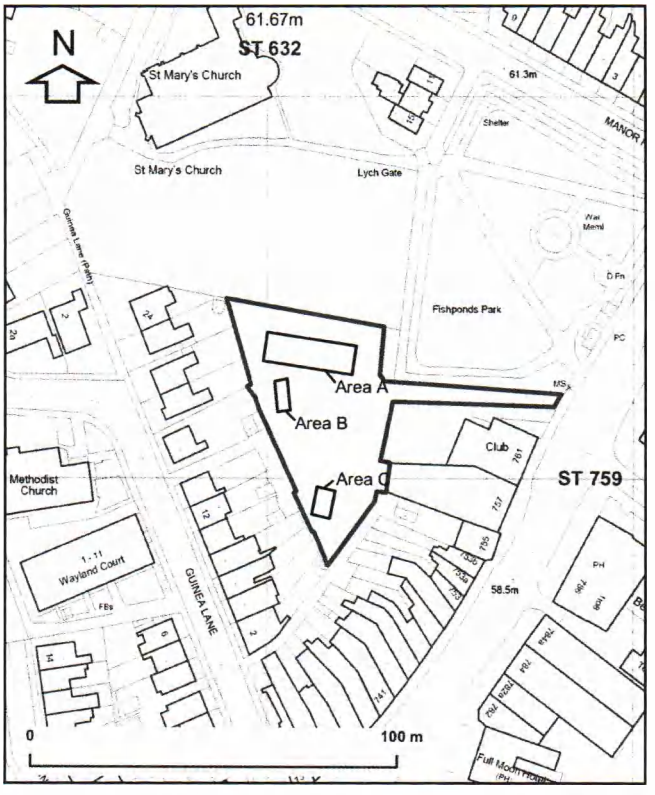

Fig.2 Boundary of the Study Area and location of excavation areas A-C.

Fishponds, Bristol (NGR ST 63316 75912; Figs.1 and 2) required a programme of three small area excavations and recording in advance of development. The planning condition was designed on the basis of information gathered prior to determination from an archaeological desk-based assessment (BaRAS 2005a) and subsequent evaluation (BaRAS 2005b).

The desk-based assessment noted that the name of Fishponds is almost certainly derived from two large ponds first depicted cartographically in 1610 (Fig.3), the northern of which occupied part of the Kings Oak development area.

The evaluation entailed the excavation of three trenches, the southernmost of which located deposits filling the Lower Fishpond and the foundations of a retaining wall built along its south side. Evidence from the same trench indicated the presence of a deliberate pond-lining whilst the heavily truncated foundations of a post-medieval building were located in the northern, elevated, part of the site.

The key objectives of the final excavation stage (BSMR 22478) undertaken by Avon Archaeological Unit was to fully record any buried vestiges of the 19th-century building revealed in the evaluation and recover all available information concerning the origin, character and environmental setting of the Lower Fishpond. In order to meet these objectives, detailed provision was included for the examination of environmental evidence from deposits filling the pond. The subsequent analysis stage included a review of the documentary evidence for the site, summarised below.

DOCUMENTARY EVIDENCE

By Jo Bruce

The district of 'Fishponds' is generally accepted to take its name from two large fish ponds whose first known depiction occurs on Norden's 1610 map of Kingswood Forest (Fig.3). The ponds, annotated *the newe pooles*, are depicted either side of a road marked the *Westerley and Sadbury Waye*. The location and shape of the pools suggests that these are the features that, by 1781 (Fig.4), were known as the Upper and Lower fishponds. The ponds were fed by a small stream rising in Soundwell and drained by a continuation of the same stream formerly known as the Bully Brook, which discharged into the River Frome. It is likely that a culvert linked the ponds beneath the Fishponds Road and allowed the flow of water from the Upper pond to the Lower. Historical maps indicate that Fishponds Road narrowed significantly where it passed between the two ponds and where, prior to being widened in the late 19th century, the road frequently flooded to a depth where horses sometimes had to pass along it "girth-deep in water" (Phillips 1971).

Historically the study area lay in the parish of Stapleton within the Hundred of Barton Regis in the County of Gloucester. Stapleton is not mentioned by name in Domesday, although the historic manor of Barton (Regis) in Swinehead Hundred, which included the City of Bristol and Mangotsfield, is mentioned. In 1887, the parish was incorporated into the City and County of Bristol in which it has since remained. In the 17th century, the area that is now Fishponds lay on the fringes of Kingswood Forest. During the Saxon period, the forest comprised an extensive royal hunting ground, which was reduced to a chase in 1228 by Henry III. It is thought that two royal hunting lodges may have existed within the area of modern Fishponds. Following its removal from royal ownership, denudation of the forest occurred, particularly from the early 18th century when private owners began to extract coal, stone and timber. At this time, Fishponds was a small rural community containing squatter cottages both in and on the fringes of the forest. Rudder (1779) reports that during the early 18th

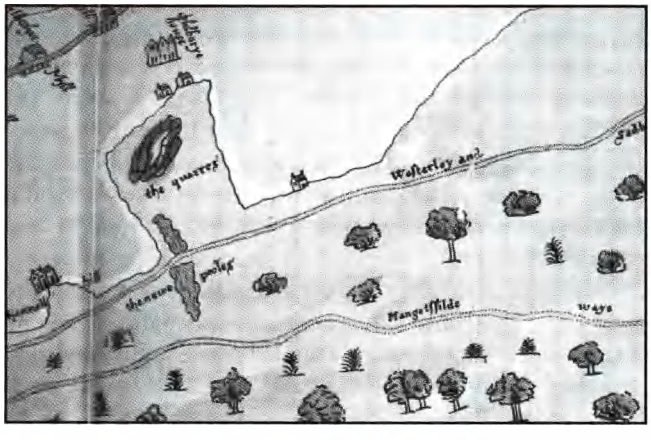

Fig.3 Extract from Norden's 1610 map of Kingswood Forest showing the 'newe pooles' (BRO/04480).

century there were 160 houses and around 700 inhabitants in the parish of Stapleton.

The ponds next appear on The Chester-Master's 1672 map of Kingswood Chace (BRO/04480), which details the liberty holdings and principal residences. The ponds are shown within *Mr Barklies Lyberty*, which is also noted to contain 14 cottages.

One of the earliest references to the name 'Fishponds' occurs in the diary of the famous evangelist, George Whitefield on 5th March 1739. He says *"Being invited by many colliers, I went to a place called the Fishponds, where 2000 were gathered together. The wall was my pulpit and I think I never spoke with greater power"* (Phillips 1971). Another early reference to Fishponds appears in John Evans's 'History of Bristol' (1824) where an entry for the year 1746 reads *"The Town Clerk; William Cann, his deputy; John Mitchel, and their clerk; James Briton, all three insane. Mr. Cann cut his own throat and the other two were sent to the receptacle at the Fishponds (ibid)*. The "receptacle" was the Fishponds Private Lunatic Asylum, founded in 1740 by Dr. Joseph Mason, a short distance to the north of the study area. The building is depicted on the 1769 map by Benjamin Donn where it is called 'Mason's Madhouse'.

Nucleated settlement at Fishponds first appears in the cartographic record around 1750, in an undated plan book of Stapleton Parish (BRO/AC/WH/5/86/q). A number of the plans depict the Lower Fishpond as having a very regular rectangular shape, possibly with walled sides, whilst the Upper Fishpond is not shown to be walled. The study area next appears on a 1769 abstract of title plan (BRO/40704/boxd3/12), the original of which is held at the Gloucester Record Office. The plan suggests that the Bully Brook may have been culverted below a footpath as it exited the Lower pond. Both ponds are also depicted by Donn in 1769 in approximately correct alignment and relative scale.

A second Plan Book of Stapleton Parish, dated 1780 (BRO/AC/PL/59a) and Sturge's 1781 *Plan of that part of the Common called Kingswood in the Parish of Stapleton, Glocestershire* (BRO/AC/PL/90) indicates that whilst the nucleus of modern Fishponds had, by that time, been established and the core of the present day road network laid out, the scene was still essentially rural. The main route through the area had been made into a Turnpike, but still passed between the two fishponds. This plan shows a weir between the two ponds, which would have maintained the water level in the Upper pond whilst supplying the Lower pond. The plan appears to show the road passing over the weir rather than simply passing between the two ponds.

Whilst *Oldburye House* (Oldbury Court) and *Channell Hill* (Channons Hill) are both situated only a short distance from the pools, documentary research failed to trace any direct relationship between them. A Badminton Estate document of 1652 (GRO/D2700/QP6/2) states that the *new pooles* lay within a division of land, formerly belonging to the manor of Barton Regis, claimed by Sir Maurice Berkeley of Stoke Gifford to be part of the manor of Stapleton. The division was amongst 700 acres of the old

Fig.4 Extract from Jacob Sturge's 1781 plan of Kingswood Common Enclosure in the Parish of Stapleton with the boundary of the study area indicated (BRO/AC/PL/90).

forest seized by Sir John Berkeley in 1564 at a time when it was being unofficially divided up into 'liberties' by the lords of the adjacent manors and the principal local landowners (Bartlett 2004). As no evidence could be produced to demonstrate that the parcel was legally purchased, it was to be returned to the Crown. The document notes that as the ponds were in need of stock, no particular value was placed upon them in the valuation of the parcel (GRO/D2700/QP6/2). It appears that the disputed division was never actually returned to the Crown, as they were still making unsuccessful attempts to recover the Chase at the beginning of the eighteenth century. A 1773 Badminton estate indemnity bond (GRO/D2700/QP5/18) discusses the theft of fish from the new pools and names John Berkeley as the owner at this time, which would appear to provide further evidence that the ponds never returned to Crown ownership.

The ponds are next depicted on Maule's 1803 plan (BRO/AC/PL/60a). The outlines of both ponds are shown, although artwork representing open water is only shown for the Upper Fishpond. However, the accompanying apportionment (BRO/AC/PL/60b) still describes both as fish ponds, the Upper being owned by Valentine Jones esquire while the Lower remains the property of the Duke of Beaufort. It is nonetheless possible that the Lower pond had been filled in by this time with its boundary being preserved in the later field pattern. Unconfirmed documentary sources suggest that the Lower Pond was filled in around 1800 on the order of the Dowager Duchess of Beaufort after a child fell in and drowned, whilst the Upper Pond was drained

Fig.5 Woodcut showing Upper Fishponds House with the Upper Fishpond in the foreground, c1828.

somewhat later by Joel Lean and made into a withy bed (Braine 1891); it was later made into an orchard by George Bompass who came to live at Upper Fishponds House around 1839. Upper Fishponds House stood close to the head of the Upper Fishpond, its first known occupant was a Mr. James Bridges who was appointed Clerk to the Kingswood Enclosure Commissioners in 1779. After his death in 1783 the house was occupied by Robert Castle who was Sheriff and Mayor of Bristol; it was subsequently occupied by the Quaker Joel Lean who came from Cornwall to establish a school at Upper Fishponds House. George Joseph Bompass, M.D. subsequently ran the house as a women's mental asylum until 1844 when he gave up practising medicine and opened a boys' school in the house. Bompass left Upper Fishponds House in 1855 although it continued in use as a school until 1861 when it was purchased by Alfred Robinson, a partner in the famous Bristol firm of E. S. & A. Robinson, who renamed it Beechwood. Upon the death of Robinson's widow in 1934, the house and 18-acre estate were sold at the Grand Hotel, Bristol for £11,400 and in 1935 the house was demolished in order to construct modern housing (Phillips 1971).

At Joel Lean's school during the early 19th century it was customary on May Day for the pupils to present an annual address to their master; at one such address a small woodcut depicting the school and the Upper Fishpond (Fig. 5) was also presented. This is the only picture known that depicts either of the two ponds and is thought to have been carved in about 1828, although the style suggests that it may have been taken from an earlier drawing. The picture provides interesting evidence for the local environs of the fishponds and suggests that they formed part of a fashionable pastoral garden landscape.

By the time of the 1839 Stapleton tithe-commutation map, both the Upper and Lower Fishpond had been filled in. A stream is depicted running through what would have been the centre of the Upper Fishpond but appears to have been culverted in the location of the Lower Fishpond, reappearing on the west side of Guinea Lane. A small body of water, perhaps a watering place can be seen on the east side of Fishponds Road at the northwest end of the former Upper Fishpond, although it does not appear to be fed by the brook which supplied the ponds. The same source shows that a house had also been constructed on, or adjacent to, the Lower Fishpond. The tithe apportionment shows that the house, outbuildings and gardens were owned by Thomas Smith and occupied by James Waddell.

The situation remained largely unchanged at the time of the 1882 First Edition Ordnance Survey map, except that the property within the study area appears to have been enclosed within a garden and the stream running through the former Upper Fishpond appears also to have also been culverted.

Subsequent Ordnance Survey maps depict continued urban growth and infilling in the Fishponds area and the 1918 map indicates that the house had been extended, although by the time of the 1971 Ordnance Survey, the building had been demolished.

SUMMARY OF THE EXCAVATIONS

Three separate excavation areas (Fig.2) were opened by mechanical excavator as part of the final stage of site work, each area located within the footprint of one of the planned three new buildings.

Area A (Figs. 2 & 6)

Area A was sited parallel to the northern boundary of the site and was opened to locate and record the remains of the post-medieval building located in the 2005 BaRAS evaluation trenches (shown on Fig. 6). The area measured 28m x 7m in plan and prior to excavation, was covered with a layer (101) of highly mixed overburden up to 400 mm thick composed of dark greyish brown sandy silt mixed with brick-and-stone rubble as well as modern rubbish and tree cuttings.

The sequence of deposits revealed across the site was extremely shallow and interspersed by areas of natural bedded sandstone (110) but included the heavily truncated remains of a series of masonry structures including wall foundations, hearths and a cistern. A group of contemporary sandstone-rubble foundations (Walls 107, 166 and 167) formed three sides of a bonded structure that appeared to define the western end of a large rectangular building whose long axis was orientated roughly southwest to northeast. No trace of these walls was present in the area of BaRAS evaluation Trench 1. Further lengths of similar sandstone-rubble foundations (Walls 109 and 111) represented further elements of the same structure.

A cistern (Structure 107) was located approximately centrally and consisted of a sunken rectangular masonry-structure with a paved floor 1.5m below the top of the retaining walls (Plate 1). The interior was tanked with a waterproof render and a group of four bricks located in the northern part of the east wall formed a channel where it appeared to have been either fed by or overflowed into a small stone culvert (Cut 114).

An earlier drain (Structure 161) was cut by both the cistern (107) and Wall 166, whilst the cistern itself was formed of faced sandstone-rubble masonry. On its eastern

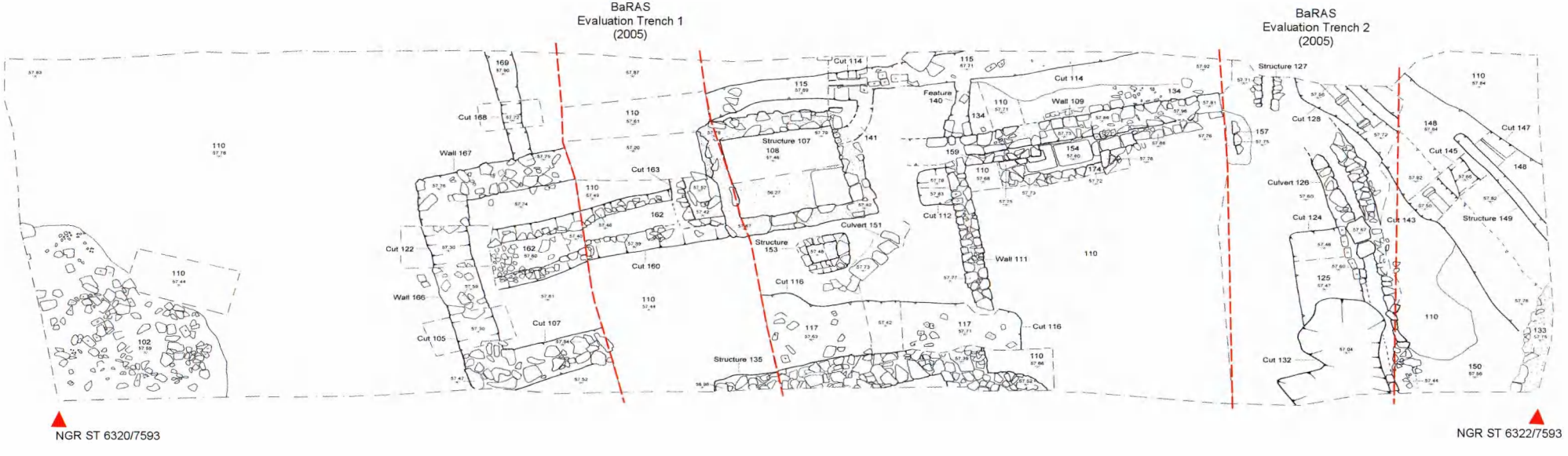

Fig.6 Plan of Area A.

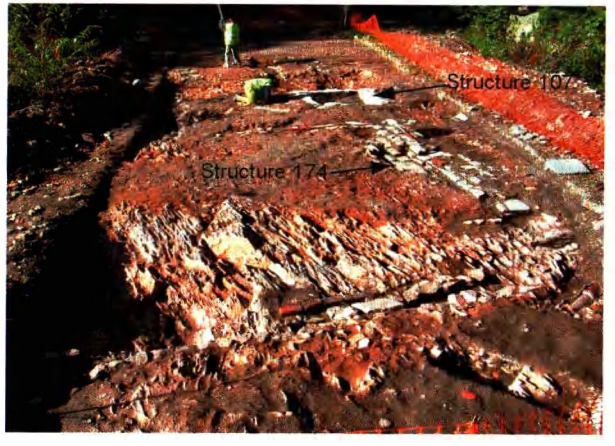

Plate 1
Structure 107
during excavation.

Plate 2 Structure 135 during excavation.

side Wall 109 was bonded with Wall 111, the central section of which incorporated the remains of a hearth (Structure 174) formed by a row of dressed-sandstone slabs at the base (154) and sides defined by further masonry (156). The slabs forming the base of the structure were lifted to reveal a deposit of fuel ash up to 510 mm deep that filled a sunken masonry structure formed by a continuation of masonry (156) that extended to this depth. No trace of a floor remained to the south side of the hearth, although the position of the hearth and sections of a narrow partition wall (Walls 111 and 157) suggested that the area originally incorporated one or more ground-floor rooms.

The northern side of a cellar (Plate 2) was revealed on the south side of the excavation area. The masonry forming the north wall of the structure (135) was formed of sandstone rubble bonded with brown clay and set in a foundation trench (Cut 116), which was only partially exposed. The internal face of the masonry was rendered with a white lime-based plaster.

Other features associated with the building included a shallow rock-cut gully (168) evident as a dark linear soil-feature that abutted the north side of Wall 167. A square masonry feature (Structure 153) of unknown function was located immediately to the south of the cistern. The feature was formed of unevenly coursed sandstone rubble bonded with a soft, grey, clay mortar.

Modern service trenches and ceramic drains were recorded as Features 128, 143, 145,147 and 149, crossing the northeastern corner of the excavation area, where, apart from the remnants of simple stone drain (126/127), and at least two heavily truncated rock-cut features (124 and 132), little trace of the 19th-century building remained.

Area B - Figs. 2 & 7

This second cutting was located in an area of gently sloping ground that possibly indicated the northern margin of the Lower Fishpond. The trench measured 7m x 4m in plan and was excavated by hand to a maximum depth of 2m (Plate 3). At the northern end of the cutting the sandstone substrate (210) fell away towards the south in what appeared to represent the north side of a large rock-cut feature (Cut 224). Two archaeological cuttings opened south of the rock edge failed to locate the bottom of the cut, which was filled by an unstructured deposits of medium to very large-sized sandstone rubble (Layers 220 and 223). No dating evidence was recovered from either of the archaeological cuttings despite the southernmost sondage being over 1.8m in depth. Several thinner layers of clay and silt (204 and 205) were present in section where they overlay the rubble deposits and abutted the south side of a drystone wall foundation (Wall 208) that crossed the excavation from east to west. The wall was preserved for a maximum of three courses and was cut on its west side by a modern intrusion (226). A modern geotechnical test pit (Feature 209) was located in the north-western corner of the area.

Area C - Figs. 2 & 8

The third of the excavation areas (Fig. 8) was located in the south portion of the site, within the suggested footprint of the Lower Fishpond. The cutting measured 10m x 7m in plan and was excavated to a maximum depth of 2.85m (52.84m aOD). Owing to its depth, the trench was stepped and battered for safety, but still enabled a full sequence of pond-fill deposits and the underlying natural substrata to be identified and examined.

The uppermost deposits revealed in the trench consisted of up to 0.5m of mixed modern brick-rubble, concrete, mortar and compacted gravels. This in turn overlay further deposits of later post-medieval or modern made-ground (302 & 303) consisting of brick-and-stone rubble in a matrix of black sandy-clay silt. These deposits sealed a lower group of cleaner clay and silt-clay soil deposits (304 - 308) reflecting successive fills of the Lower Fishpond (Plate 4). This sequence of deposits was sampled in bulk for plant macrofossils and in soil columns for pollen, diatoms and other environmental indicators (see below).

A cutting excavated through these earlier deposits revealed gritty-sandy-clay (310) that represented the natural undisturbed substrate at *c*52.90m aOD. No evidence for any deliberate pond-lining was present.

A tertiary pond-fill (305) was cut in the north eastern corner of the cutting by the construction trench of a rubble culvert or drain (309/312) with flat rubble capping stones, the south-western edge of which was visible in plan. A central void or channel was noted containing running water flowing in a southeasterly direction.

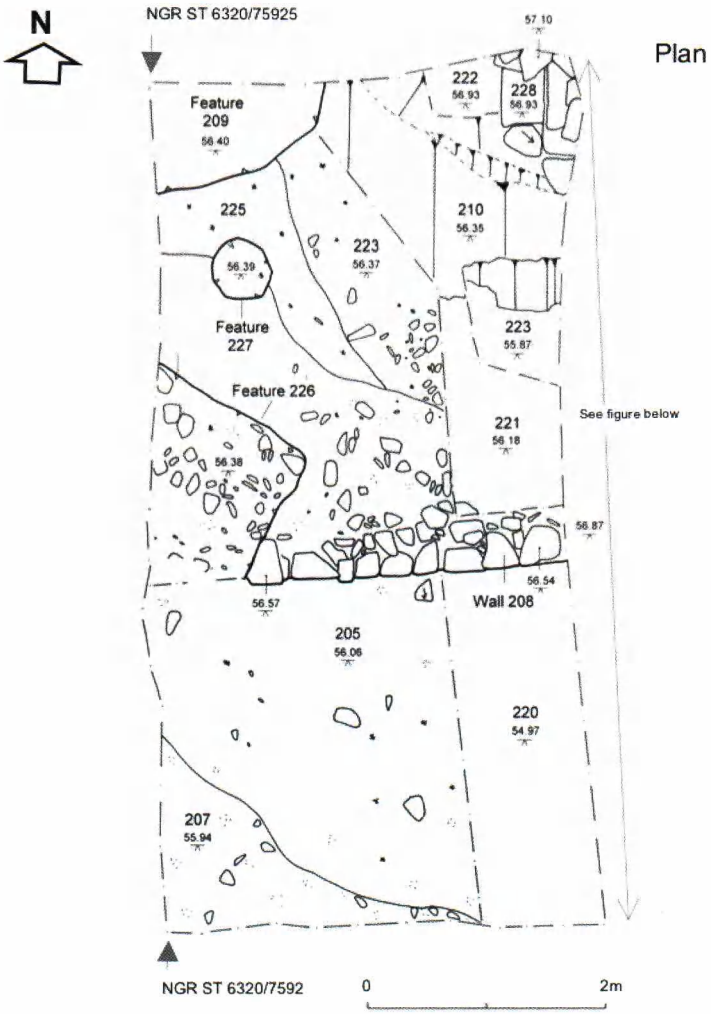

Plate 3 Wall 208 and cut 224 during excavation.

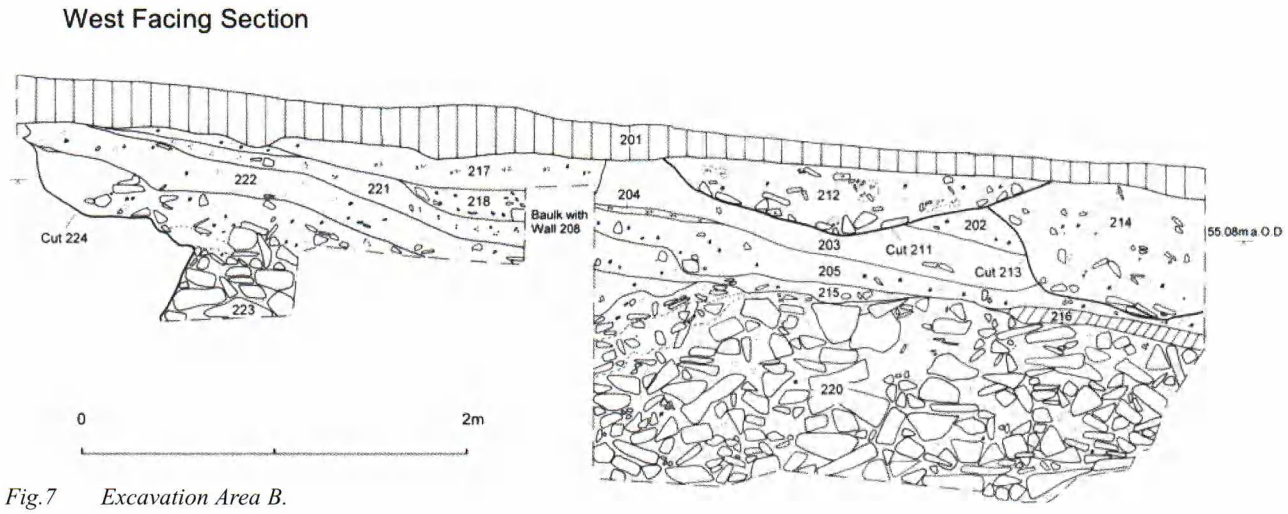

Fig.7 Excavation Area B.

SUMMARY OF THE FINDS

By Sarah Newns

The overall assemblage of finds recovered from the site was very small with most being of post-medieval date and recovered from post-medieval contexts. The following section is selective and summarises the major categories present. Summaries for other artefacts can be found in the project archive. None of the finds was illustrated.

Pottery

An assemblage of 102 sherds (1353g) was recovered. With the single exception of a sherd of 13th/14th century Bristol Redcliffe Ware, the pottery was unremarkable and of later

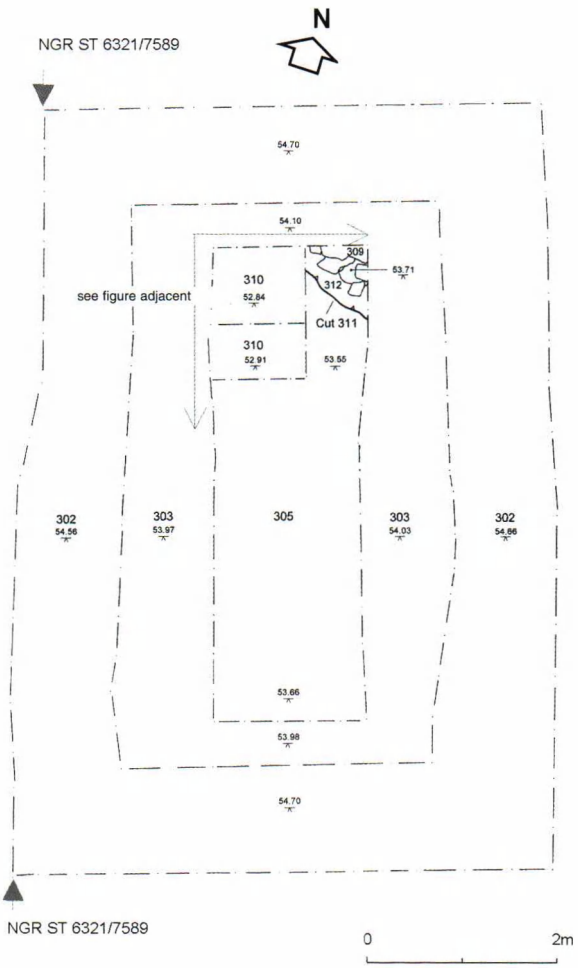

Fig.8.1 Plan of excavation Area C.

Fig.8.2
East and south-facing section of Area C.

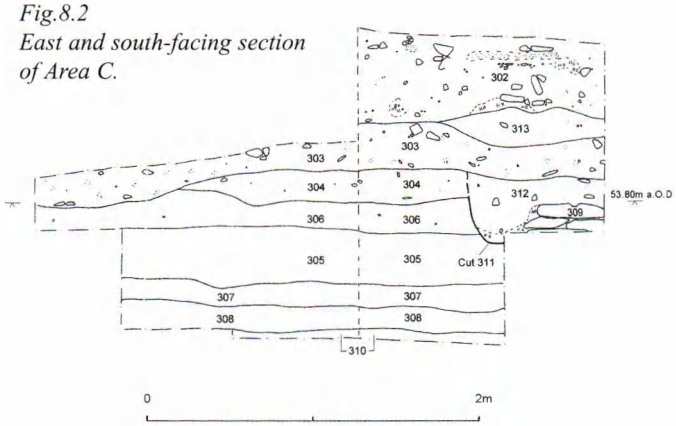

Plate 4 Pond fill deposits in Area C.

post-medieval date. However, a fragment of German stoneware with applied decoration showing a figure holding a clay tobacco pipe, is of note. The assemblage dates excavated features on the site to the later post-medieval and modern periods although it should be noted that the earlier and primary pond fills produced no ceramic dating evidence and required dating by radiocarbon. The assemblage appears to represent domestic occupation, probably contemporary with the occupation of the 19th-century building located in Area A.

Ceramic Building Material (CBM)

A handful of CBM and tile numbering 26 fragments was collected. The assemblage included fragments of modern brick/roof tile, drainpipe and glazed tile, the latter probably fireplace surround.

Metal Objects

Six objects of metal were recovered during the excavation from stratified contexts. Three of the finds were aluminium; a plain disc, an oval keyfob stamped with the name *"Lynne"* and a pouring spout from a vinegar bottle. The remaining objects consisted of a plain copper-disc, possibly a very worn coin and part of a copper-alloy object, possibly a toasting fork.

Bone

Only 10 fragments were recovered from stratified contexts. Two of the finds were bone objects, one a small bone button or disc, the other a fragment of a larger button. The assemblage is entirely consistent with domestic occupation debris of post-medieval and modern origin.

ENVIRONMENTAL EVIDENCE

Samples of deposits filling the Lower Fishpond revealed in Area C (Fig. 2), totalling 200 litres, were taken from five contexts for environmental assessment. A further 60 litres were sampled from the two primary silts (307 & 308) for the purpose of entomological analysis whilst column samples (Plate 5) were taken across all of the lower pond fills for pollen and diatom analysis. Samples of wood overlying the top of the natural substrata (310) were submitted for identification and independent radiocarbon dating (below).

The deposits sampled, shown on Fig. 8.2, consisted of the following:

Context 304 (Sample 900) - dark brown sandy clay loam with a well mixed granular structure up to 200mm deep, containing occasional small stones, frequent ash flecks, occasional flecks of lime and small fragments of crushed brick/tile with a gradual lower boundary overlying context

306.

Context 306 (Sample 901) - reddish grey brown, very similar to context 304, up to 210mm deep with moderate ash/spent coal flecks, occasional lime grits and very occasional small stones with a clear lower boundary overlying context 305.

Context 305 (Sample 902) - orange brown silty clay up to 410mm deep with some orange mottling and occasional manganese flecks, containing small patches of humified material, but no other obvious inclusions, with a diffuse lower boundary overlying context 307.

Context 307 (Sample 903) - red brown silty clay up to 150mm deep with moderate manganese flecks, occasional organic patches and a diffuse lower boundary overlying context 308.

Context 308 (Sample 904) - the primary pond fill, a grey clay up to 130mm in depth containing well humified root remains and organic patches with organic content increasing towards the base of the unit, with a clear to abrupt lower boundary overlying context 310.

Context 310 - a firm coarse sand, red brown in colour with occasional grey and red patches that decrease with depth. Weathered natural substrata.

Plant Macrofossils

By Lisa Gray

Sampling and processing were carried out by Avon Archaeological Unit Limited. Bulk sample sizes were 40 litres and each sample was completely processed by flotation and flot collected in a 500 micron mesh sieve. The samples were all taken from the same feature and from successive layers. The earliest context was 308 and the latest was 304.

Results

Most of the plant remains in each sample were uncharred and unmineralised. Waterlogging was not noted in the observations made of any of the sampled contexts. The plant remains in contexts 309 and 307 did appear to be highly organic. This may have been missed during processing and rather than being wet-sieved and kept wet these samples have been floated and dried. Even so, the quality of preservation of these plant remains was good.

Each sample contained uncharred root fragments. This means that stratigraphic movement of seeds would have been likely, especially in the later samples. The primary fill (308) contained a distinctly different assemblage of plant taxa to the later samples. It is on this observation that analysis was recommended even though seeds in the later samples may have been moved by roots.

Charred and silicified remains were present in very small quantities. Charred remains were present in each sample. The most frequent type was microscopic charcoal flecks. Very poorly preserved cereal remains were observed in contexts 307 and 306. Better preserved seeds were noted in 307. Silicified seeds of annual mercury (*Mercuralis cf. annua L.*) were observed in 308, 306 and 304 with most in 304. It is possible that these charred and silicified remains come from the upper contexts where field observations noted "ash/spent coal flecks"

Plate 5 Column sampling of the pond fills for pollen and diatoms.

The Plant Remains

The primary pond fill (308) was dominated by seeds of aquatic and semi-aquatic plants. The most frequent seeds were those of pond weed, possible broad-leaved pondweed (*potamogeton cf. natans L.*). Also frequent were seeds of water-plantain (*Alisma cf. plantago-aquatica L.*) and rush (*Juncus sp.*). This sample contained a seed of marsh pennywort (*Hydrocotyle vulgaris L.*) – a species not seen in later samples. Each of these plants are common in and beside shallow, slow moving or still, water. Broad-leaved pondweed is a fully aquatic plant found in slow moving or still, fresh water and usually grows in water less than one metre deep (Clapham *et al* 1952, 1193). Water-plantain grows on muddy substrata (Clapham *et al* 1177) and beside fresh water (Rose 1981, 401). Marsh pennywort is common in damp, acidic soils (Clapham *et al* 1952, 629).

The presence of these aquatic and semi-aquatic plants indicates that it is possible that this level of the excavated feature contained shallow, still water. Small quantities of water flea eggs (*Daphnia sp.*) were present. These eggs tend to be produced at times of environmental stress (Samaja-Korjonen 2003, 691). In this case it could be the drying up of the pond.

The remaining seeds came from plants common in cultivated ground, waste/disturbed ground and scrub. These could have entered the context from surrounding plants or have travelled down into the context via root action. The species observed in this sample were also noted in later samples with the exception of red goosefoot (*Chenopodium rubrum L.*) and tormentil (*Potentilla erecta (L.) Rausch*) and cinquefoil/tormentil (*Potentilla sp.*). These are not noted in later samples but could still have entered this context with root action. Red goosefoot is common in disturbed and waste ground, particularly near the sea (Stace 1997, 139)

and tormentil is a grassland plant common on light acid soils (Clapham *et al* 1952, 494).

Possible Secondary and Tertiary fills, contexts 307 and 305
The sample directly above the primary fill contained a wider range of plants including several taxa from scrub and woodland. Water plantain was observed in small quantities. A new semi-aquatic species was observed in this sample. This was celery-leaved crowfoot (*Ranunculus sceleratus L.*). This plant's habitat is similar to that of broad-leaved pondweed and water-plantain. It is common in shallow ponds "...of mineral rich water with a muddy bottom..." (Clapam *et al* 1952, 93). The field observation is of a "...diffuse lower boundary..." (pers. comm. R. Payne) between this context and the primary pond fill. Movement of seeds between the two contexts is possible. A low number of water flea eggs were also observed in this sample.

The remaining plants come from scrub and cultivated/disturbed ground. Shrubs and trees were represented by the buds, catkins and samara of birch (*Betula sp.*), a possible hawthorn (? *Cretaegus monogyna Jacq*) leaf and seeds of elder (*Sambucus nigra L.*), ash (*Fraxinus excelsior L.*), pear/apple (*Pyrus/Malus*) and blackberry/raspberry (*Rubus fruticosus/idaeus*). The herb layer was represented by seeds of stinging nettle (*Urtica dioica L.*), fat hen (*Chenopodium album L.*) and curled dock (*Rumex crispus L.*). These plants frequent nutrient rich and disturbed ground. Damp ground plants were also present – sedge (*Carex sp.*) and rush (*Juncus sp.*).

A charred wheat (*Triticum sp.*) glume base and charred seeds of curled dock and dock (*Rumex sp.*) were observed in context 307.

The boundary between contexts 307 and 305 was also described as "diffuse" and 307 contained a similar assemblage to 305. A birch bud was observed in 305 along with a hawthorn leaf and seeds of stinging nettle, elder and sedge. Water-plantain and pondweed seeds appear again in this sample. Evidence of scrub was present via blackberry/raspberry seeds, fragments of hazelnut (*Corylus avellana L.*) shell and a hawthorn leaf. The remaining seeds came from plants of waste, disturbed, open and damp ground and included black nightshade (*Solanum nigrum L.*), red goosefoot and ?redshank (*Polygonum cf. persicaria L.*).

Contexts 306 and 304 contained plant assemblages similar to the preceding three. The main difference is not related to plant remains but to the faunal remains observed during assessment. Both of these samples contain terrestrial mollusc remains and no water-flea eggs. The field observations also suggest a change in function or depositional activity with a clear boundary being seen between context 306 and 305 (pers. comm. R. Payne).

Water-plantain seeds were observed in small quantities in context 306. These were the only aquatic plant remains observed in these two samples. The remaining seeds in both samples were of plants of scrub, disturbed/nutrient rich ground and open cultivated and damp grassland. New species not seen in preceding samples, but found in similar habitats, were fool's parsley (*Aethusa cf. cynapium L.*), common chickweed (*Stellaria media (L. Vill)*), woundwort (*Stachys sp.*) and dead-nettle (*Lamium sp.*). A fragment of wood was identified from this sample and was identified as Apple/Pear/Whitebeam/Hawthorn (*Maloideae*).

Silicified seeds of annual mercury were observed in both samples and a poorly preserved wheat grain was present in 306.

Interpretation
The primary and secondary fills, contexts 308 and 307, do seem to show that at some time this feature contained standing water. The water-flea eggs could indicate that the pond was starting to dry up or naturally fill up with sediment. No mineralized remains were observed and the absence of possible culinary waste (i.e. fruit stones) means that there is no archaeobotanical evidence for the dumping of domestic refuse.

The later contexts did not reveal as clear a difference as hoped during the assessment but do seem to confirm the initial observation that the latter samples represent backfill (Gray 2007). The charred and silicified non-wood plant remains were present in such low quantities they are most likely to be background plant waste entering the feature with backfill or natural sediment build up.

Pollen

By Alex Brown

Introduction
Five samples were analysed from the pond fill deposits in Area C for the presence of pollen for the purpose of reconstructing the local vegetation environment and to investigate the evidence for human activity and land use. Pollen preservation and concentrations were found to be excellent in all of the samples analysed. The assemblages indicate a largely open environment throughout the sequence, but with an increase in woodland indicators through context 308. Aquatic pollen from context 308 is consistent with the interpretation of this unit as the primary pond fill.

Of the five samples prepared for pollen analysis one was from context 307 (32-33 cm), three were from context 308 (36-37, 38-39 and 41-42 cm), and one was from context 310 (44-45 cm). These sedimentary contexts were thought to represent the fill of a late medieval to early post- medieval pond, and are overlain by sediments, not analysed here, comprising re-deposited soil mixed with post-medieval debris.

Methods
Sub-samples of sediment 1cm thick and *c*1cm^3 in volume were taken for pollen analysis. Samples were chemically prepared using standard laboratory techniques (Moore *et al* 1991), with the addition of tablets containing Lycopodium spores to enable calculation of pollen concentrations. Samples were analysed under a Leica DME binocular microscope at x400 magnification, with critical determinations at x1000 magnification. A minimum of 300

pollen grains and fern spores were identified per sample, excluding aquatics and *Sphagnum*. All taxa follow current nomenclature established in Bennett *et al* (1994). Indeterminable grains were recorded according to Cushing (1967). Identification of cereal pollen followed the criteria of Andersen (1979).

Results

Pollen values for trees and shrubs vary little through the sequence, comprising 30-45% in contexts 310 and 308, decreasing to 25% in context 307. *Quercus* (oak) and *Corylus avellana*-type (hazel) comprise the principal arboreal taxa, with stands indicated of *Betula* (birch), *Alnus glutinosa* (alder), *Ulmus* (elm), *Tilia* (lime) *Salix* (willow), *Fagus sylvatica* (beech), *Fraxinus excelsior* (ash) and *Acer* (maple). The presence of *Calluna vulgaris* pollen (*c* 5%) may suggests the presence of some scrub/heathland within the surrounding environment.

Herbaceous pollen dominates all the samples (50-60%), principally comprising Poaceae (25-30%), but with significant quantities of *Taraxacum*-type pollen (dandelion) within context 310 (44-45 cm). The high values for Poaceae (grasses), and lower values for pollen of trees and shrubs do suggest a significant open component to the local vegetation, that, along with *Taraxacum*-type and other herb taxa present, may have formed part of a mosaic of open woodland/copses, meadows and pasture. Pollen of Poaceae may also represent stands of *Phragmites australis* (common reed) growing along the margins of the pond, intermixed with stands of Cyperaceae (sedges). Fern spores occur in consistently low values (*c*10%), largely comprising Pteropsida (undifferentiated fern spores) and *Polypodium* (common polypody), but with occasional spores of *Thelypteris palustris* (marsh fern) growing within the pond margins, and *Dryopteris filix-mas* (male fern) and *D. dilatata*-type (shield fern) growing on the dry ground.

Cereal-type pollen was present in all the samples analysed. Cereal-type pollen was identified to either the *Hordeum* (barley) or *Avena-Triticum* (oats and wheats) group (Andersen 1979). The *Hordeum* group largely comprises wild grasses and only two cultigens (*Hordeum vulgare* and *Triticum monococcum*). Pollen identified to this group most-likely represents large pollen grains from wild grasses growing along the pond margins (e.g., *Glyceria fluitans*: floating manna grass), rather than cereals. The *Avena-Triticum* group comprises only one wild grass (*Avena fatua*), and is a more reliable indicator of cultivation. *Avena-Triticum* pollen is present in all but sample 36-37 cm, suggesting the possibility of cereal cultivation or the processing of crops in the vicinity.

The sequence is characterised by an increase in aquatic pollen of *Myriophyllum* (water milfoils) in context 308, peaking at 30% (36-37 cm). The interpretation of this context as primary pond fill is entirely consistent with high values encountered for pollen of *Myriophyllum*, and the presences of *Typha latifolia* (bulrush), Potamogeton (pondweed), *Sparganium emersum*-type (unbranched bur-reed) and *Nuphar* (yellow water-lily), that occur widely in ponds, lakes, slow-moving rivers, streams and ditches. Pollen of Myriophyllum declines sharply from sample 36-37 cm to sample 32-33 cm, but is unaccompanied by change in the other principal plant taxa. Myriophyllum can often form dominant stands, and it is not improbable that it was removed for this reason.

Conclusions

The results of pollen analysis presented here have provided information on the depositional and vegetation environment. Aquatic pollen of *Myriophyllum* is abundant within context 308, and is entirely consistent with the interpretation of this context as primary pond fill. Reeds, sedges, ferns and bulrushes also grew along the margins of the pond. Tree, shrub and herb pollen suggest that the surrounding environment was open, with stands of trees, largely of oak and hazel, but with elm, ash, lime, alder, willow, birch, beech and maple present. This may have taken the form of open 'park-like' woodland with areas of pasture and meadow suggested. Cereal-type pollen grains suggest that the cultivation or processing of crops may have occurred in the vicinity.

Diatoms

An assessment of diatoms by Nigel Cameron (Cameron 2007) indicated that the diatom assemblages from four of the five samples recovered from Area C showed good potential to carry out percentage diatom counting. Diatom-based pH, salinity and nutrient histories for the pond sediment sequence were examined to interpret the site's environmental history. Percentage diatom analysis, quantitative pH, nutrient and salinity reconstruction were carried out and reported, full details of which can be found in the project archive.

The four samples from the Lower pond sediments all contained a high diversity of diatoms. The results suggest an initially nutrient-poor, slightly acid flora that is replaced by a less acid flora as the pond became more productive. However, there is no evidence for severe nutrient enrichment (eutrophication) associated with large organic inputs. The level of non-marine dissolved salts appears moderately high but is probably overestimated. The low numbers of aerophilous diatoms shows that the sediment was not prone to drying out and that there was little erosion from the catchment into the pond.

Wood

By Rowena Gale

Introduction

A total of six pieces of wood, recovered from context 310 were submitted for identification and assessment. The samples were identified as belonging to the Pomoideae family and most likely as hawthorn.

Methods

The sample consisted of six large fragments of roundwood,

plant macrofossils indicate that initially it consisted of a shallow slow-moving or still body of water containing aquatic and semi-aquatic plants in addition to water-flea eggs, an indicator that conditions may have included periods when the pond started to dry up or the pond filled with sediment. The later sequence of plant remains points to a possible increase in scrub and woodland around the pond, although the absence of domestic waste possibly places it outside areas of habitation.

The pollen analysis provided information on both the depositional and floral environment of the pond and its environs. Aquatic pollen of *Myriophyllum* is abundant in the primary pond-fill (308), consistent with the interpretation of this context as a primary deposit. Reeds, sedges, ferns and bulrushes are indicated at the pond margins whilst the presence of oak, hazel, elm, ash, lime, alder, willow, birch, beech and maple pollen, in addition to herb pollen, suggest that the wider local environment consisted of a mosaic of mixed open woodland or copses, meadows and pasture, combined with a small proportion arable cultivation scrub or heathland.

The analysis of diatoms suggests that all of the early pond-deposits contained a high diversity of diatoms. These point to an initially nutrient-poor slightly acid flora that is replaced by less acid varieties as the pond became more productive. There is no evidence, however, for severe nutrient enrichment associated with large organic inputs, something that appears to conflict with the entomology, which equates the presence of dung beetles (*Scarabaeidae*) with animal grazing. In addition, contrary to the interpretation of the plant macrofossils, the low numbers of aerophilous diatoms suggests that water levels were stable and that the pond sediments were not prone to drying out, or affected by significant terrestrial input from the pond catchment.

Together, the multiproxy analysis of the Lower Fishpond sediments, combined with the radiocarbon dates of 1280-1410 AD obtained from sapwood from the primary pond-silts, indicates that standing water was present on the site by the 14th century, at which time it consisted of a body of shallow nutrient-poor, acid-rich, water some distance from habitation and set in a mixed 'park' landscape that included areas of pasture, arable cultivation and heath or scrub. This overall picture changes only slightly as the pond and its habitat matures over three-hundred years or so until the late 18th century, when changes of land ownership and use, coupled with the growth of the settlement now called 'Fishponds', finally leads to the filling of first the Lower, and then the Upper Fishpond, and the construction of new buildings adjacent to or directly over these eponymous features.

The very poorly preserved remains of the 19th-century dwelling are consistent with the cartographic evidence, although at least two main phases of structural development are indicated. Unfortunately, the poorly preserved state of the structures, coupled with a remarkably limited assemblage of finds, precludes any further detailed interpretation at this stage.

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BRO/AC/PL/90	Sturge's 1781 Plan of that part of the Common called Kingswood in the Parish of Stapleton, Glocestershire.
BRO/EP/A/32/35	1838 Tithe Map of Stapleton Parish.
BRO/Pamplet/22	Two Vanished Fishponds Houses by C. R. Hudleston and B. A. Robinson 1939.
BRO/AC/WH/5/86/q	Plan book of Stapleton Parish – undated.
BRO/AC/PL/59	Plan Book of Stapleton Parish dated 1780.
BRO/AC/PL/60a	Maule's Plan of 1803.
BRO/AC/PL60b	Apportionment of 1803.
BRO/40704/boxd3/12	1769 Abstract of Title Plan.
GRO/D2700/QP6/1-5	Badminton Estate Muniment Document of 1652.
GRO/D2700/QP9/1/7	Map.
GRO/D2700/QP9/1/8	Map.
GRO/D2700/QP5/18	Badminton estate indemnity bond of 1773.

ARCHAEOLOGICAL MONITORING ON THE SITE OF BROOMWELL HOUSE, BRISLINGTON, BRISTOL, 2003-4

by
Timothy Longman

INTRODUCTION

The site of Broomwell House, centred on NGR ST 61913 71778, lies about 3km south-east of Bristol city centre in the suburb of Brislington (Fig.1). The site was bounded by Wick Road to the east and by residential housing to the south (on Wick Road) and west (on Sutton Avenue). Prior to the commencement of the archaeological monitoring the site was occupied by several semi-detached two-storey houses - these had been demolished by early November 2003. A second, smaller plot lay to the north of Collin Road at the junction with Wick Road, but apart from a capped-off well no building remains were recorded.

The two plots of land that constituted the site were to be redeveloped by Willmott Dixon Housing, on behalf of the Aldbury Housing Association Ltd and the William Sutton Housing Association Ltd, with the building of several semi-detached and terraced houses.

The purpose of the monitoring was to record the nature and extent of any surviving archaeology and to seek to interpret any occupation on the site, particularly associated with the late 18th/19th century Broomwell House. It was known that the house had extensive cellars so it was hoped that by locating part(s) of one or more of these it might be possible to establish the internal layout of, at least, the main building.

The site slopes gradually towards the Avon river valley (from south to north) from a height of approximately 40.5m aOD, next to 256 Wick Road, to approximately 39m aOD near the Collin Road/Wick Road junction. The geology comprises Redcliffe sandstone of the Triassic period.

The archive of records and finds deriving from the project has been deposited with Bristol City Museum and Art Gallery under accession number BRSMG 2004/45.

HISTORICAL BACKGROUND

The site lay in the hamlet of Wick in the northern part of Brislington parish in the County of Somerset until the late 19th century when part of the parish, including the site, was incorporated into the City and County of Bristol.

During the medieval period the manor of Brislington lay within the Hundred of Keynsham, which was part of the Honour of Gloucester, granted by King William II (1087-1100) to Robert FitzHamon (d.1107), a kinsman of his, in the late 11th century. The estate later reverted to the crown, after which John, Count of Mortain (later King John) granted the manor to the De La Warre family (Bryant 1995, 5). The chapel of St Anne, the site of which lies several hundred metres north-west of the study area, was founded by Roger De La Warre in 1276 (Winchester 1986, 10). The priests' house, known as 'Newycke', stood some 200 metres south of the study area near Wick House (Bristol Historic Environment Record 20506).

On the site of the later Broomwell House stood a house that may well have been extant in 1539 when the chapel of St Anne was dissolved on the order of King Henry VIII and the priests' house, orchards and property were leased to Robert Stafford (*ibid*, 47).

The old house was demolished in 1768 and a new one

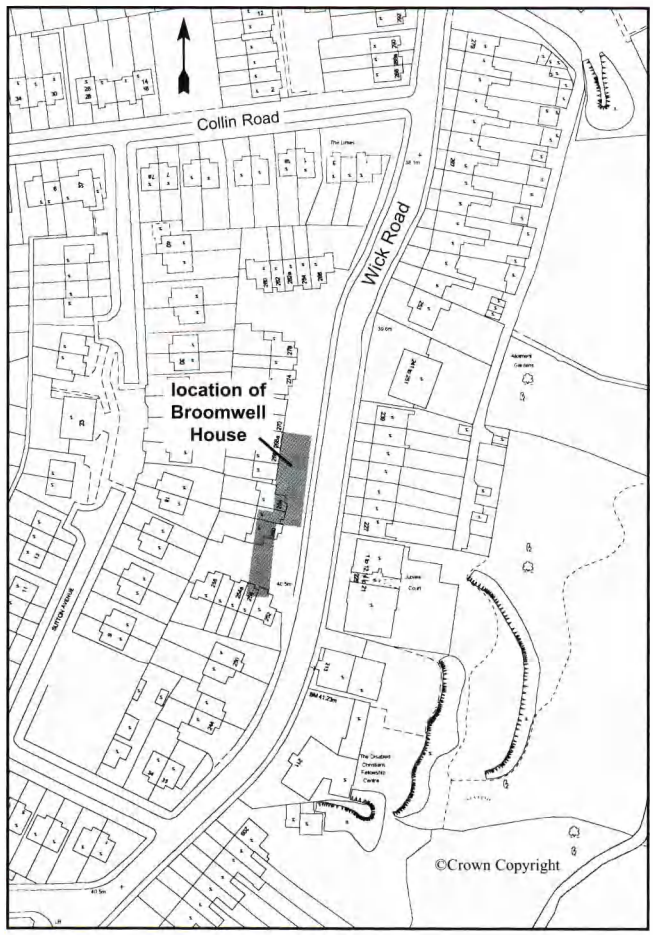

Fig.1 Site location plan, scale 1:2500.

Fig.2 Portrait of George Weare Braikenridge by Nathan Cooper Branwhite (1775-1857) c1828. BRSMG K2817.

started by William Reeve, a Bristol merchant and copper smelter. He also had Arnos Court and the 'Black Castle' built. His estate was sold in 1774 when he became bankrupt. A Quaker, the Society of Friends reported that he had brought it upon himself partly because of his 'most extravagant expense in building at Brislington'. Broomwell House was bought by the Rev. Thomas Ireland, the largest landowner in the parish. He had the house completed, lived there for a short time then moved to his new home Brislington Hall (*ibid*, 47). He sold Broomwell House to the shipbuilder Charles Hill in 1792. Later it was bought by John, Lord Colville of Culros, who lived there until his death in 1810.

George Weare Braikenridge (1775-1856) (Fig. 2) bought Broomwell House (Fig. 3) from Daniel Stanton in May 1823. The estate boundaries extended from Sandy Park Road north to the top of Langton Road. On the east side of Wick Road it stretched from the boundary wall dividing the

Fig.3 Broomwell House, Brislington, by Samuel Jackson (1794-1869) c1823. BRSMG K4837.

grounds of Wick House and the estate farm Woodcroft House to Nightingale Valley and down to Brislington Brook. The entrance lodge stood almost opposite Wick House, on the west side of Wick Road. At the time of the 1831 census there were six people living at Broomwell House, plus two gardeners and a labourer. In *c*1840 George Braikenridge was one of the largest landowners in the parish, owning some 85 acres. He also owned homes in Bristol at No. 21 Queen Square and at Clevedon (Claremont House in Highdale Road), plus several estates in south Wales and in north Somerset (*ibid*, 47-8).

He was the eldest son of a Virginian planter and merchant, of Scottish ancestry, and was born in Virginia in 1775. His father, George Braikenridge, was an 'empire loyalist' and at the outbreak of the American War of Independence he moved his family to England. George (junior) later became the senior partner in his father's West Indian business (Stoddard 2001, 5). His wealth enabled him to turn his house at Brislington into a setting for his antiques collection with a Gothic library (Figs. 4 & 5) as its centrepiece. He filled the house with stone and wood carvings, monuments, carved doors and fireplaces, antique furniture, books, manuscripts, tapestries, stained glass, etc. Some of the Gothic library, including an elaborate carved door, survives in Claremont House, Clevedon to which Braikenridge's eldest son moved the room and its contents in the 1860s. George Braikenridge also commissioned a number of artists to paint and draw views of Bristol and the Brislington area, including Broomwell House itself.

Braikenridge was both a staunch Anglican and a Tory. He was successively a churchwarden at St Mary Redcliffe and St Nicholas in Bristol and at St Luke in Brislington. He died at Broomwell House on 11 February 1856 and was buried in St Luke's Church.

In his will (drawn up on 12 December 1855) he left nearly £72,000 in bequests, plus twelve houses and farms. His eldest son, the Rev. G. W. Braikenridge (1815-82), (rector of Christ Church, Clevedon), of Claremont House, Clevedon, was named in the will (proved on 19 May 1856) as 'tenant for life' of Broomwell House. He was also left the Bristol and Gloucestershire collections of art and antiques, while William Jerdone Braikenridge, JP (1817-1907), of Newton House, Clevedon, his younger son, was left the Somerset collections. A number of small objects from Braikenridge's collection (including the Malmesbury ciborium) were publicly exhibited after his death. Objects were shown at the 1857 Manchester Art Treasures Exhibition, the 1861 Bristol Exhibition, in loan exhibitions at the South Kensington Musuem (now the Victoria & Albert Museum) in 1862 and 1874 and the Burlington Fine Arts Club in 1897.

The house was put up for sale in August 1867. William Proctor Baker, corn merchant (later Mayor of Bristol 1871-72), formerly of Funchal Villas, Clifton, bought the property in March 1868 for £3,000 and he and his family lived there until May 1896. George Henry Johnson, market gardener, of St George, Bristol in turn purchased the property from him for £5,100. In March 1898, under an Act of Parliament

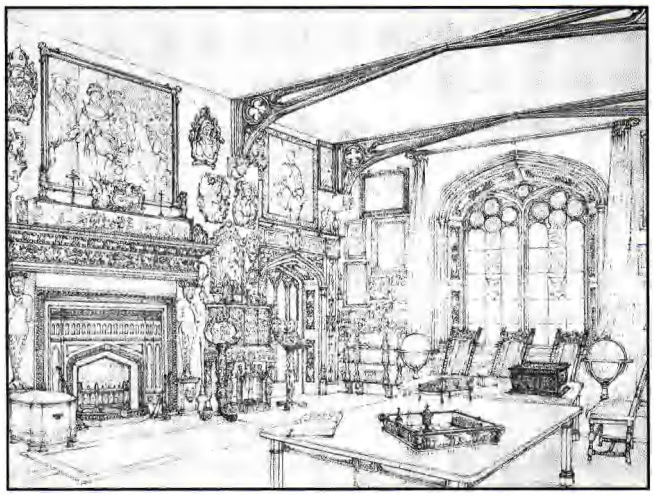

Fig.4 Pencil drawing by W. H. Bartlett showing the interior of Broomwell House Library c1825 (looking south-west). BRSMG K2912.

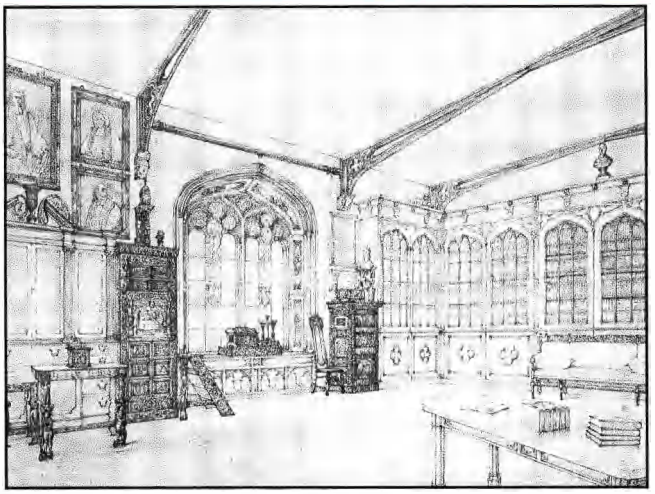

Fig.5 Pencil drawing by W. H. Bartlett showing the interior of Broomwell House Library c1825 (looking north-east). BRSMG K2913.

(1897 Bristol Corporation Act), part of Brislington parish (including the study area) was taken into the City and County of Bristol. George Johnson died on 15 October 1913 leaving the property to Catherine Jane Jenkins, spinster. Some eight months later in June 1914 she sold Broomwell House to George Samuel Gerrish, market gardener, of Whitehall, Bristol for £5,600 (Fig. 6).

In October 1915 George Gerrish, then of Bellevue House, Gordon Road, Whitehall, Bristol sold the property to the 'Trustees of the Will of W. R. Sutton, deceased' for £7,000. In the Conveyance the property is described as 'All that mansion house together with the gardens, Entrance Lodge, Gardeners House and lands held therewith and two cottages and also a close of land adjoining all which premises are situate near Brislington in the City and County

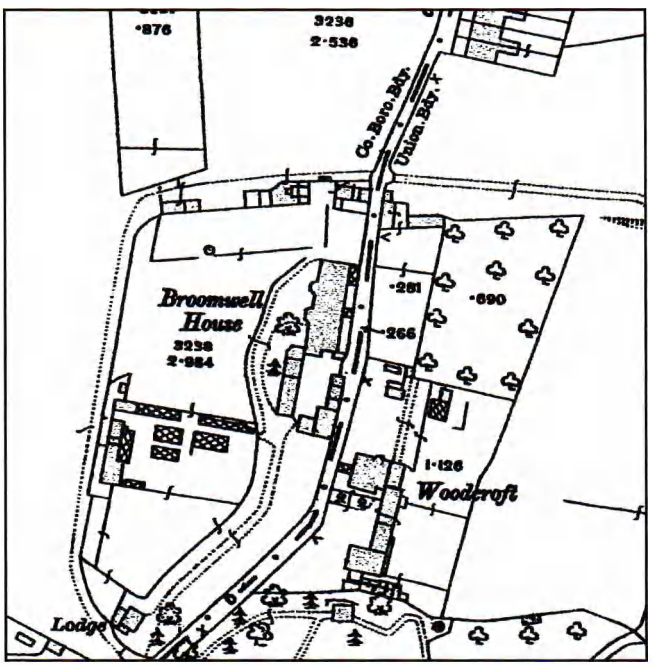

Fig.6 Extract from 1917 Ordnance Survey map (surveyed 1912-13).

of Bristol and are known as The Broomwell House Building Estate and contain an area of fifteen acres, one rood and twenty five perches more or less....'

William Richard Sutton (late of Golden Lane, Clerkenwell, London and 'Sunnydene', Sydenham Hill, Dulwich, Kent) had died on 20 May 1900. Under a clause of his Will he instructed his executors and trustees that the proceeds obtained from the sale of his estate should be used 'for the purchase and acquisition of sites for and the building, letting and otherwise of model dwellings for the poor in London or any other populous place or town in England....' As a result of a case in the Chancery Division of the High Court of Justice concerning the administration of the estate of the Testator, His Lordship Mr Justice Warrington ordered (ref: 1901 S. 1117) on 14 March 1906 that 'a scheme for the administration, regulation and management of the charity created by the gifts in the Will of the said Testator should be settled....' thereby creating the William Sutton Trust.

Broomwell House, the two cottages, the gardener's house and outbuildings were demolished in late 1915, although the entrance lodge survived until 1928. House building on the Sutton Estate eventually took place during the 1930s, the site of Broomwell House being occupied by Nos. 252-266 Wick Road. The village of Brislington and the rest of the parish was incorporated within the city boundaries in 1933.

THE FIELDWORK RESULTS

The concrete foundations, demolition rubble and laid services, such as drains, associated with the pre-war semi-detached houses that formerly stood on the site were excavated by a 360° slew mechanical excavator. While monitoring this first phase of groundwork the substantial below ground remains of a large building were revealed covering much of the southern half of the site.

It soon became clear that much of the core of Broomwell

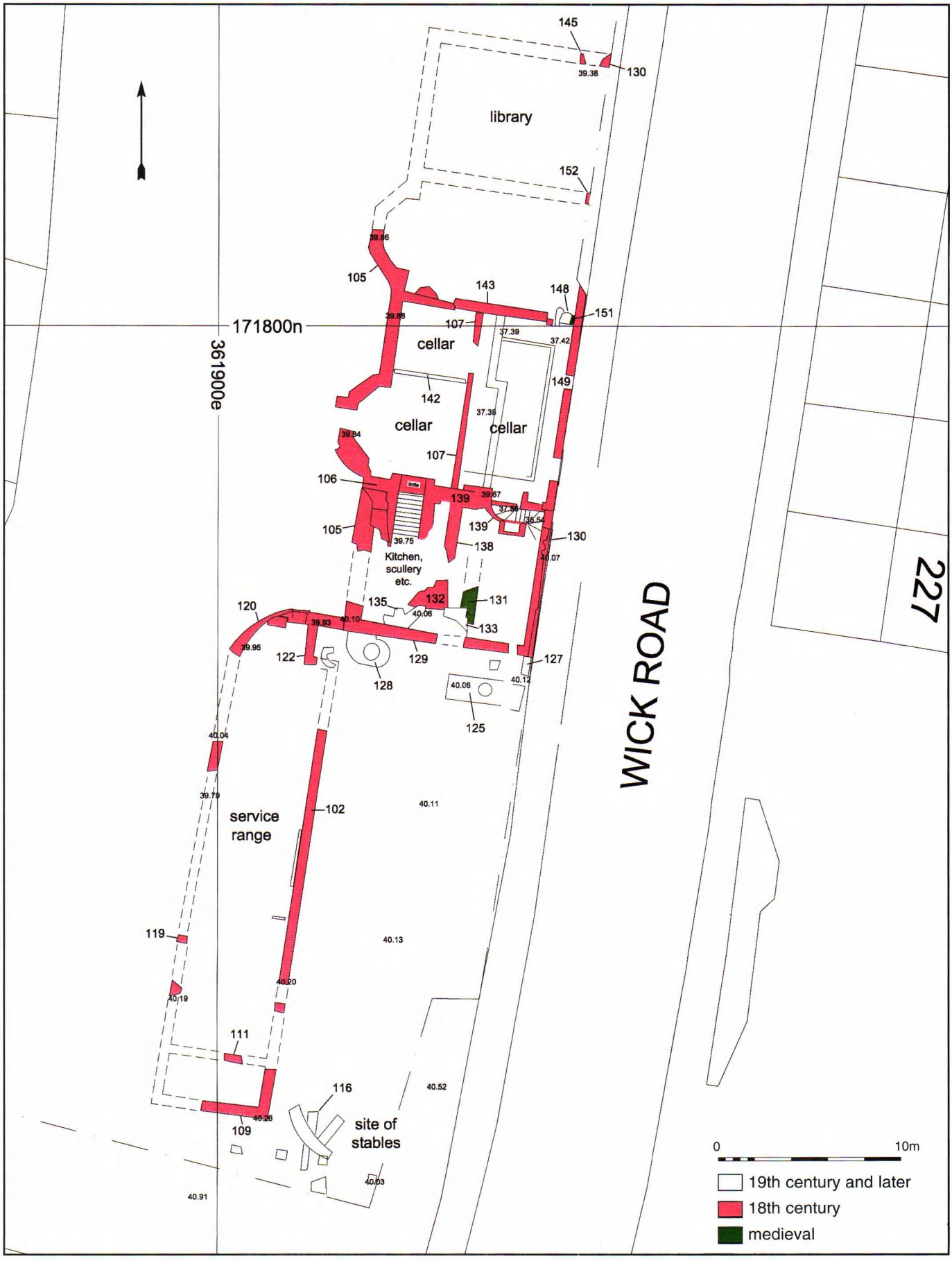

Fig.7 Plan of the surveyed remains of Broomwell House.

Plate 1 A view of the surviving cellars, looking north-west.

House was largely intact, just beneath ground floor level (Fig. 7). These remains included several internal partition walls, as well as what appeared to be in-filled cellars. Sections of intact wall foundations were also observed on the site of the service range, south-west of the house. After examining the reddish pink lime mortar used in the construction of most of the walls it looked likely that the house and adjoining outbuilding represented a single phase of construction dating from the late 18th century. The exposed walls were then hand-cleaned, recorded and surveyed.

Period I: Late Medieval

Only two walls, both truncated, were built using Pennant sandstone bonded with a reddish, lime-flecked mortar that appeared to pre-date the late 18th century house. Wall 131, located towards the south-east corner of the interior of the house, measured 0.82m wide by 2.7m long and was aligned roughly north/south. The other wall (151), formed part of the north-east corner of the east cellar. Although no datable finds were found in association with either of the two walls they may represent the remains of the late medieval building that reportedly stood on the site in the 1530s, surviving until its demolition in the 1760s.

Period II: Late 18th Century

Excluding the projecting bay windows, the Georgian house measured 10.55m wide by 32m long. All the exterior walls of the house (105, 129 and 145), except the east front (130), were built of Pennant sandstone masonry bonded with the same reddish pink lime mortar. The east elevation, while also built of Pennant sandstone, was faced with dressed limestone blocks, the only area where an alternative building stone was utilised.

A mix of demolition rubble and redeposited soils was removed by mechanical excavator from two of the three cellars – the third was not excavated. This mixed deposit (100) consisted almost entirely of bricks, probably largely from the demolished barrel-vaulted cellar roofs, along with occasional blocks of limestone masonry and broken roof slates in a matrix of dark brown soil.

Documentary references indicate the cellars were used to store wine and beer. The two cleared cellars (Plates 1, 2 and 3) were found to be some 2.5m deep. The eastern cellar measured about 10m long (N/S) by about 5m wide (E/W)

Plate 2 Looking north (from ground floor level) into the east cellar.

Plate 3 Looking south (from ground floor level) into the east cellar.

and originally would have had a Pennant flagstone floor. While a few flagstones were *in situ,* most had been removed, probably salvaged prior to the demolition of the house. At floor level, next to the east wall was the roof of a water cistern. Composed of Pennant sandstone setts the roof of the Pennant flagstone underfloor reservoir (149), about 1.2m wide and at least 1m deep, ran the full 10m length of the cellar. At the north end of the cistern, built into the north wall of the cellar, was a brick-built semi-circular structure (148), into which a lead pipe would have fed rainwater from the roof via the gutters. The walls of the cellar were built of Pennant sandstone masonry; the east wall (130) being the eastern exterior wall of the house. The positions of two possible cellar lights were noted in that wall.

At the south end of the cellar, beneath a 2m high arch (141), was a flight of stone winder steps leading up to the ground floor. The south-west cellar measured 4m wide (E/W) (excluding the bay window) by 6m long (N/S). It too would originally have had a Pennant flagstone floor, but only a few flagstones remained. Excluding the later brick (north) wall, all the walls of the cellar were built of Pennant sandstone masonry, the west wall (105) being the west exterior wall of the house. The main access to the cellar was via a flight of stone steps, beneath a 2m high arch (106), at the south end of the chamber. The north-west cellar, approximately 3.6m wide (N/S) by 4m wide (E/W), was not excavated, although a small sondage was dug in the north-west corner of the area. This exposed the top few stone winders of another staircase leading down into the cellar from the rear hall.

Most of the internal ground floor partition walls were also built using Pennant sandstone. In places however, some internal walls incorporated small areas of brickwork, possibly repairs. In addition, at the south end were areas of mixed stonework/brickwork bonded with pale yellow mortar that were interpreted as sub-floors and/or the bases of fireplaces (132-135). The brick remains of the base of a fireplace (144), within what may have been the drawing room, were recorded on the north side of partition wall 143, north of the hall. To the north of the latter room is the site of the library. Unfortunately, virtually no trace of the north end of the house survived, except the north-east corner. In total six ground-floor rooms including the dining room, drawing room, library and hall were identified. The rear hall led outside, through a pair of French doors, to the gardens.

Abutting the south-west corner of the house was the north wall (120) of a service range that continued to the south for some 27m. These Pennant sandstone remains included a 15m long section of wall (102) that had formed much of the east side of the range. It was aligned roughly north/south and survived to a height of approximately 0.5 metres. The south (109) and west (119) walls were much more fragmentary. About 2m from the southern end of the building was a 0.36m wide internal partition wall (111), also built of Pennant sandstone. It formed the north side of a small room within which a deposit of burnt debris (110) - largely a mix of ash and broken window glass - was recorded. It was, perhaps, evidence of a fire lit during the demolition of that part of the house to destroy old roof timbers, floor joists, etc. To the east of the service range was the site of the former stable yard. To the south of this area were the stables themselves.

To the north of the house, during the excavation of foundation trenches for some of the new houses, several Pennant sandstone walls bonded with the same ubiquitous reddish pink mortar were observed. These undoubtedly were parts of a garden wall that separated the house and garden from an adjoining orchard and walls belonging to a number of adjoining outbuildings that are known to have been located in that area. In addition, a Pennant sandstone-built drain (151) was recorded between the two bay windows, just beyond the west front of the house. This drain was intended to transport rainwater from the gutters and down-pipes of the house into the network of drains recorded on that side of the building.

Period III: 19th Century

Within the Pennant sandstone wall (107), that divided the east cellar from the two western cellars, were two brick-built 2m high doorways (Plates 1 and 2), one, 1.34m wide giving access to the south-west cellar, the other, 1.22m wide, allowing access to the north-west cellar (not excavated). It was noted that pairs of iron door hinges were present on either side of the rebated doorways in the east cellar indicating that these could be closed.

The brick north wall (142) of the south-west cellar would appear to be a later addition, indicating that originally the west cellar was, like the east cellar, a single room. Soon afterwards the doorway, about 2m high, was blocked in using a similar type of brick as used in the construction of the wall itself.

On the south side of the stable yard the west wall (116) of the possible stable block was located. The north/south aligned Pennant sandstone wall, bonded with an off-white mortar, had been heavily truncated. It appears that the stable-block is later than the service range. If that suggestion is correct then the stables may originally have been located in part of the service range. Contemporary with the stable wall were two drains (117 and 118), built of the same materials as used in wall 116.

On the north side of the stable yard was a brick-built cess pit (125) measuring 1.5m by 4.4m. It was a long barrel vaulted chamber with a circular hole 0.73m in diameter in the roof for access. About 1m to the north was a drain (126), which probably carried the waste from the house to the cess pit. Several metres west of the cess pit, abutting wall 129, was a brick and Pennant sandstone-built soakaway (128), bonded with a pale grey mortar.

CONCLUSIONS

The earliest features recorded during the limited programme of recording on the site of Broomwell House were two possible late medieval walls. Due to a lack of datable finds their precise origin remains unclear, but they clearly pre-date the 18th-century house and a building is recorded on the site in the early 16th century and in the 1760s, when it was demolished to make way for William Reeve's new house.

Most of the remaining contexts relate to the 18th-century Broomwell House. The process of cleaning, recording and surveying the surviving remains identified a single major phase of construction with virtually all the walls of the house, service range, stables and garden walls being built of Pennant sandstone bonded with a reddish pink lime mortar. The only other building stone used were blocks of dressed Oolitic limestone, utilised in the construction of the east front – the main elevation next to the front drive and overlooking the lane (now Wick Road). In addition, there was quite extensive use of brick in the construction of the barrel-vaulted cellar roofs, in repairs to walls, at the bases of fireplaces and around doorways, such as those in the cellars.

The archaeological evidence suggests that the fabric of the house remained largely unaltered from its construction in the late 1760s until its demolition in 1915. The house comprised a three-storey main block with single-storey wings; the north wing containing the library, while the south wing contained the kitchen, scullery, etc. Although no major additions were made to the house, it is known that George Weare Braikenridge (owner between 1823-56) made cosmetic alterations to most of the buildings, Gothicising parts of the house, the entrance lodge and the two cottages.

He remodelled the north wing of the house in the 1820s adding architectural features such as medieval Gothic finials and ornately carved windows acquired at auctions to create his Gothick library. To the library interior he added a chimney piece comprising an Elizabethan fireplace (salvaged from a house in Small Street, Bristol), a Jacobean overmantle and Flemish caryatids as jambs, an ornately carved panelled door and stained glass. A ceiling bearing a number of heraldic crests was added a few years later. In 1867 the room was dismantled and reassembled in Claremont House, Clevedon by the Rev. G. W. Braikenridge and became known as the 'Museum Room'. In addition, other rooms at Broomwell were also decorated with antique chimney pieces, carved doors, wood panelling, etc. These were also later removed to Claremont House. The survival of the Victorian Gothick interior, with the various architectural features and well preserved 1860s wallpaper in the Museum Room led to Claremont House being Listed Grade II in 1976, amended in 1980 as Grade II*.

Broomwell House remained a family home until its sale in 1914 to Mr G. S. Gerrish of Whitehall, Bristol. Acquired by the William Sutton Trust the following year as the site for a new housing estate the house was pulled down later the same year.

ACKNOWLEDGEMENTS

The author wishes to thank Miles Connor, Chris Neville and Mike Boon of Willmott Dixon Housing Limited Western Region, the BaRAS site team of Liz Davis, Kevin Potter, Dave Stevens, Chris Reese and Faith Cairns. Sheena Stoddard (Fine Arts Curator) at Bristol City Museum and Art Gallery, Bob Jones (City Archaeologist) and the late Jon Brett (SMR Officer) at Planning Services, Bristol City Council, Gaynor Hodges (Building Surveyor) and Sue Worrall (Corporate Services Manager) at the William Sutton

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TWO ROMANO-BRITISH SITES IN SOUTH GLOUCESTERSHIRE: EXCAVATIONS AT ALMONDSBURY AND BRADLEY STOKE

by
Jonathan Hart

INTRODUCTION

This report details the results of two small excavations in South Gloucestershire where Romano-British settlement remains were identified. At Hortham Lane, Almondsbury possible building platforms and a well were found along with several ditches and stone quarry pits. At Brook Way, Bradley Stoke a cluster of pits and a well was revealed. Pottery recovered from both sites indicated a main period of use during the later Roman period, although earlier material was present on both sites, including Late Iron Age pottery at Hortham Lane. Both sites fit into the known pattern of Roman settlement in the Severn Valley of Southern Gloucestershire, indicated by sites such as Cattybrook, Almondsbury; Savage's Wood Road, Bradley Stoke and Stoke Gifford.

The reports presented here represent summary accounts. Fuller accounts, including full descriptions of all classes of artefacts and ecofacts, have been deposited in the South Gloucestershire Historic Environment Record (CA 2009a and 2009b).

HORTHAM LANE, ALMONDSBURY

Project Background

Between March and July 2007 Cotswold Archaeology (CA) undertook an excavation at Hortham Lane, Almondsbury, South Gloucestershire (NGR ST 6181 8424). The work was carried out on behalf of Taylor Woodrow (South West) to discharge a condition attached to planning consent for residential redevelopment of an area of *c*20ha of land located to the immediate north of the M4/M5 interchange (Fig.1). The site was formerly occupied by Hortham Hospital, which was set within landscaped grounds. The hospital, originally known as Hortham Colony, was built in the early 1930s for the mentally handicapped. The site is located at around 75m aOD on higher ground to the east of the Severn floodplain. The underlying geology comprises Triassic Lower Lias deposits of limestone with clay (BGS 1962).

Roman activity is well attested in the local area and the site is located close to the projected alignment of the Roman road linking Glevum (Gloucester) with Abonae (Sea Mills) (Margary 1973, 140-141 and Fig. 7, route 541). Within the site, but outside the development area, an excavation by Bristol City Museum in 1969 prior to the construction of a new hospital building identified traces of a timber building along with ditches and a stone wall (Ponsford 1969). The ditches represented the earliest use of the site and dated to the Late Iron Age. The timber building had been rebuilt at least four times and continued in use until abandonment in the early 2nd century AD.

Fieldwork Methodology

The fieldwork took place in three stages. The initial stage comprised an evaluation, consisting of 33 trenches. Although much of the site was terraced during the construction of the former hospital, the evaluation identified the presence of a shallow coombe running east/west across the centre of the site (Fig. 1C) within which Late Iron Age and Roman features were preserved beneath a layer of colluvium (CAT 1999). The second stage consisted of an excavation targeted on the archaeological remains identified during the evaluation within the footprints of new buildings.

The final stage of works was a watching brief targeted on areas that had not been truncated by terracing during the construction of the former hospital. Modern deposits, consisting of topsoil, subsoil and modern make-up layers, were removed by a mechanical excavator equipped with a toothless bucket. Excavation continued by hand thereafter.

Excavation Results (Figs. 1 and 2)

A concentration of archaeological features was identified within the excavation area. The watching brief across the remainder of the site identified further features close to the excavation but only a single pit at any distance away from it. Features and deposits have been ascribed to periods based on the recovered finds and on their morphology and spatial distribution.

Period 1: Late Iron Age/Early Roman

Period 1 features comprised four shallow and irregular pits, pit group 1 and pit 24. These varied widely in diameter but were all around 0.2m deep. All had been cut through the Lias limestone to the top of the underlying clay and were probably stone quarries. They had been backfilled with deposits derived from the natural substrate and former topsoil and contained small amounts of animal bone, burnt stone and Late Iron Age and Early Roman pottery.

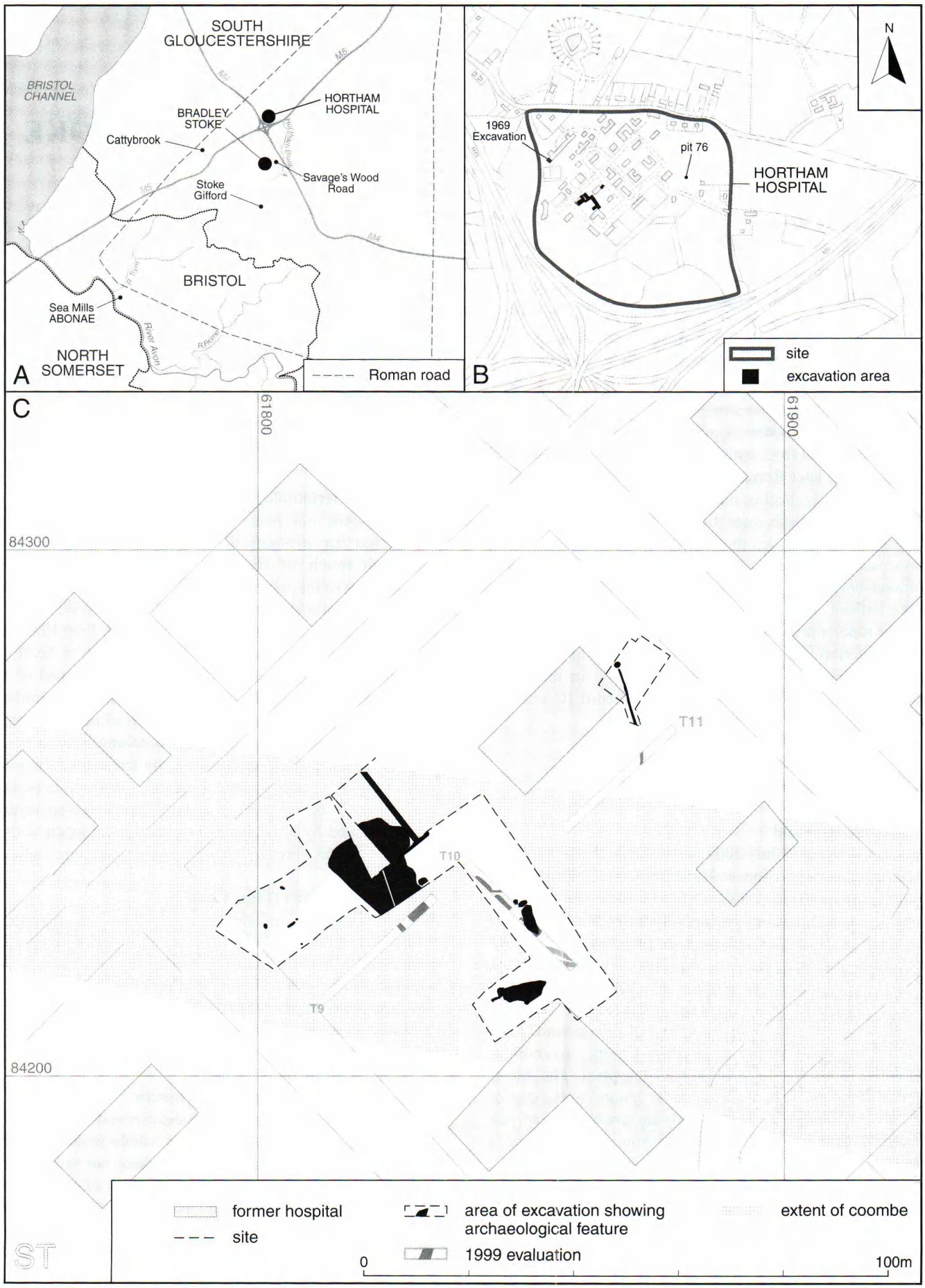

Fig. 1 Location of the excavation at Hortham Lane, Almondsbury (1:1000).

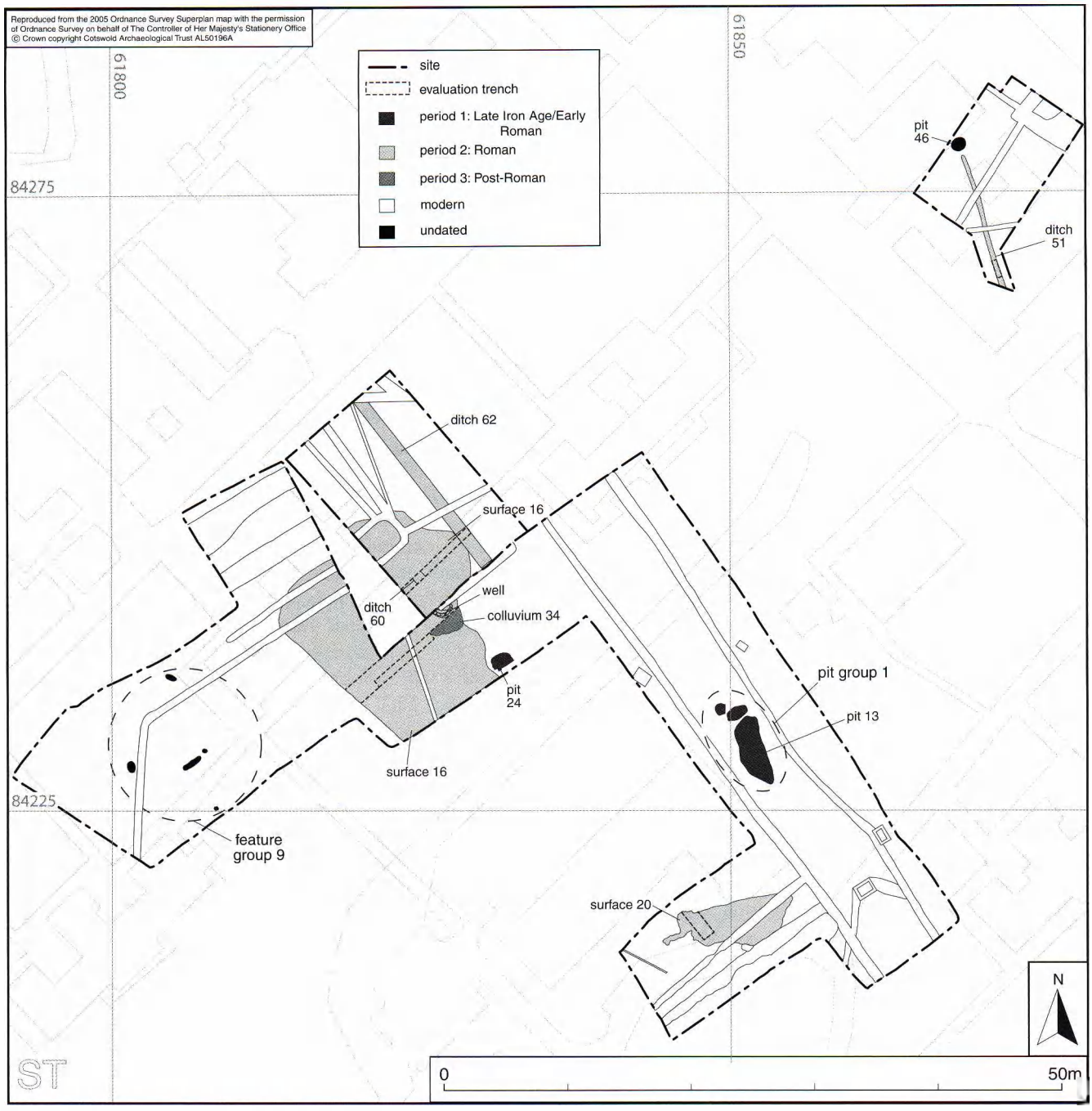

Fig.2 Hortham Lane. Excavation area (1:500).

Period 2: Roman

A well, two areas of hard standing, four ditches and a pit dated to the Roman period. Small assemblages of pottery and animal bone were recovered from these features. The pottery mainly dated to the later Roman period. The animal species present comprised cattle, sheep/goat and pig as well as a fragment of red deer antler. The antler had been chopped several times and is likely to be waste from antler-working. Much of the animal bone showed evidence of butchery and gnawing by dogs was occasionally present.

Three shallow north-west/south-east aligned ditches (60, 62 and 51) were found. Ditches 60 and 62 were broad, 1.3-1.5m wide, while ditch 51 was only 0.3m wide. Ditches 60 and 62 had filled naturally but contained 2nd to 4th-century pottery. Ditch 51 remained undated but is likely to have belonged to this period given its alignment. A further ditch (1619) was identified during the evaluation. It was aligned east/west and contained two sherds of 3rd to 4th-century pottery as well as animal bone and a few pieces of tap slag.

Ditch 60 was sealed by a stone surface surrounding a well. The well was excavated to the contractor's formation level without its base being encountered and lay only partially within the excavated area. Despite this, enough of the well was exposed to show that it consisted of a shaft with an internal diameter of approximately 1.5m, constructed using local Lias stone. The lowest exposed fills of the shaft

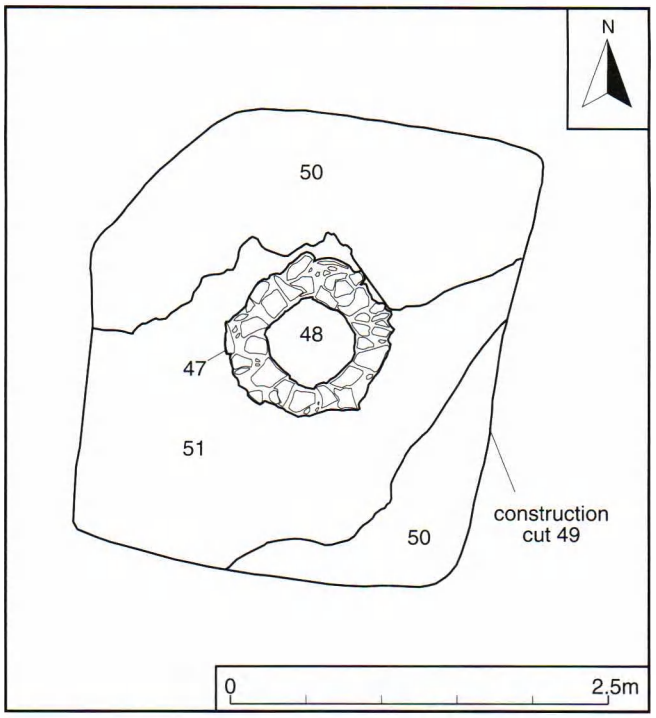

Fig.4 Brook Way. Detail plan of Well 047 (1:50).

metal detecting just to the south-west of the site (Fig. 3B, SGHER 10535).

Excavation Results (Figs. 3 and 4)

Topsoil was stripped from the excavation area under archaeological supervision, using a mechanical excavator equipped with a toothless bucket. Excavation continued by hand thereafter. A well and a cluster of pits revealed at the south-western edge of the site contained moderate amounts of 3rd to 4th-century pottery. The 31 pits were of irregular plan with rounded profiles. They were between 0.4m to 2.35m in diameter and 0.05m to 0.35m deep, and were filled with homogenous clayey deposits. Although some of the pits were intercutting, stratigraphic relationships between them were impossible to determine due to the similarity of their fills. All but one of the pits contained 3rd to 4th-century pottery as well as small amounts of animal bone of cattle, sheep/goat and pig.

The well (47) lay 5m to the south-east of the main pit cluster. It consisted of a shaft with an internal diameter of 0.55m, constructed from Lias limestone and built into a sub-rectangular construction cut (Fig. 4). Pottery dating to the 3rd to 4th centuries was recovered from the backfills (50 and 51) of the construction cut. The uppermost surviving part of the shaft had been backfilled with dark clayey deposit 48 from which pottery of similar date was recovered. The well was excavated to a depth of 1.2m below the ground surface without its base being reached. The upper part of the well had been removed by a robber cut although the date of this robbing event remains unclear since the Romano-British pottery recovered from its fill might be residual.

The Pottery

By E.R. McSloy (with identification and comment on the samian by Peter Webster)

Pottery amounting to 1140 sherds (9.03kg) was recovered from the pits and well (Table 1). The average sherd weight is low for a Roman assemblage although a number of deposits, including fill 55 (pit 54) were notable for including substantially complete vessels (Fig. 5, 2-4). Detailed fabric descriptions of the pottery appear in the archive report.

The pottery assemblage dates predominantly to the later Roman period, after *c*AD 250/70. This date is inferred from the presence of diagnostic late forms in Dorset Black-Burnished Ware, including conical flanged bowls, plain-rimmed dishes and everted-rim jars with obtuse-angled burnished lattice decoration. Similar forms are present in Greyware fabrics. The dating evidence is refined by the presence of diagnostic regional finewares and these, together with an absence of types such as late Roman shell-tempered wares, indicate that activity on site pre-dates *c*AD 350.

The local reduced wares are typical of material which dominates later Roman assemblages in the Bristol/Severn Vale area. A probable source for much of this material is Congresbury, Somerset, where major pottery production commenced after the late 2nd century AD.

Some groups feature regionally-traded finewares including Oxfordshire and New Forest wares. The fill of pit 54 contained a near complete New Forest rouletted beaker (Fig. 5, 2), closest to Fulford's type 44 and dated to the late 3rd or early 4th century (Fulford 1975, 56–7). The same fill also contained an Oxfordshire colour-coated ware bowl with an illiterate maker's stamp of similar date (Fig. 5, 1). A New Forest funnel-necked beaker was present in pit 112 (Fig. 5, 5). Similar vessels with 'tooled' decoration are dated to the first half of the 4th century by Fulford (1975, 54). Oxfordshire red-slipped ware products, primarily bowls and mortaria were present in a number of contexts. In this region the presence of this ware group implies dating after *c*AD 270.

The assemblage is comparable with published later Roman groups from the region. Greywares of North Somerset or Severn Vale origin dominate (58% of total estimated vessel equivalents (EVEs)), with Dorset Black-Burnished Ware well represented (18% of EVEs) and with finewares/specialist types (mortaria) provided by New Forest and Oxfordshire producers. The range of forms is typical for all types of Roman sites, with an emphasis on jars (53% of EVEs total) and utilitarian Black-Burnished Ware 1 derived open forms (25%). A functional division was apparent in the finewares present which saw bowls and mortaria derived from Oxfordshire and beakers from the New Forest area. This is a usual pattern for the region.

The site produced fragments from no more than ten samian vessels. The majority can be placed in the mid to late 2nd century and are residual in later contexts. A surprising inclusion is a substantially complete East Gaulish samian

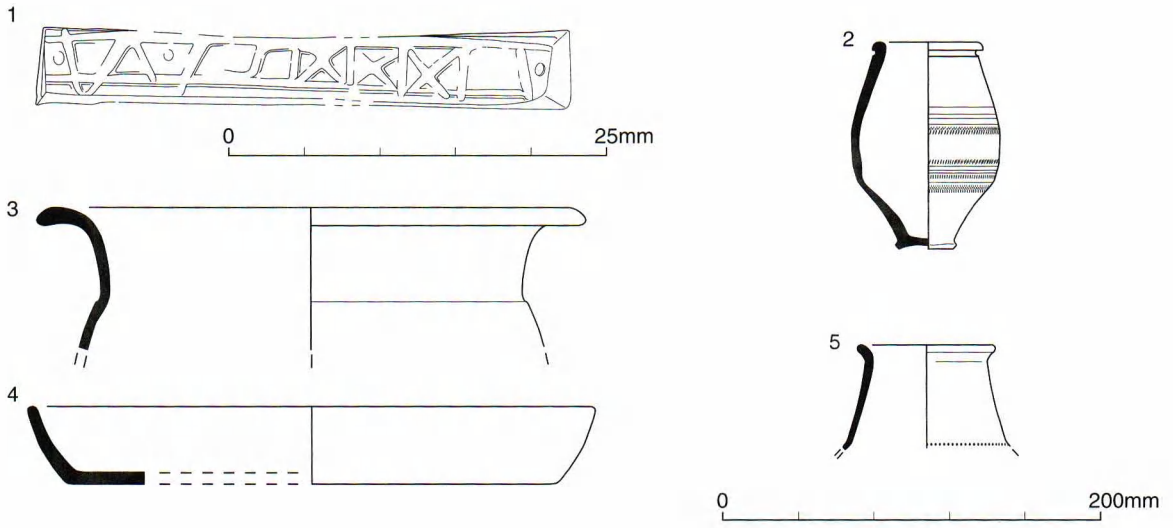

Fig.5 Brook Way. Romano-British pottery. Scales 1:1 (1) and 1:4 (2–5).

bowl (described below) from Rheinzabern, the least well represented of the major manufacturing centres which supplied Roman Britain. This bowl dates to no later than c. AD 200, and its condition indicates it must represent a late survival in use.

Catalogue of Illustrations (Fig. 5)

1. Period 1, pit 54, fill 55. Fabric OXF RS. Illiterate makers stamp.
2. Period 1, pit 54, fill 55. Fabric NFO CC. Bag-shaped beaker with bead-rim (Fulford type 44). Rouletted decoration.
3. Period 1, pit 54, fill 55. Fabric LOC GWm. Wide-mouthed jar.
4. Period 1, pit 54, fill 55. Fabric LOC GWm. Plain-rimmed dish.
5. Period 1, pit 112, fill 113. Fabric NFO CC. Funnel-neck beaker with everted rim. Rouletting at shoulder.

Samian (not illustrated)

Period 1, pit 54, fill 55 Form 31, East Gaulish. An almost complete vessel bearing the stamp MARCELLINVS with the second L and the I overlapping and the N and V ligatured. The S is imperfectly impressed. The stamp is that of Marcellinus of Rheinzabern, cf. Ludowici 1904, 51, no. 581, 1905, 48, no.2299 and 1912, 37, nos. 7740, 7809, 7945 and 7961. Second half of 2nd century.

Fabric code	Fabric code	Count	Weight	Rim EVEs
Greyware micaceous	LOC GWm	422	4379	2.45
Greyware 'standard'	LOC GW	221	1147	1.56
Greyware, finer	LOC GWf	13	152	0.18
Greyware, red-margins	LOC GWf (rm)	20	28	0.14
Oxidised	LOC OX	138	248	0.09
Whiteware	LOC WH	2	6	0.00
Dark grey (BB1 imit.)	LOC BS	19	292	0.20
Dorset Black-Burnished	DOR BB1	259	2010	1.33
Oxford Red-Slipped	OXF CC	13	140	0.09
Oxford white	OXF WH	2	9	0.00
Misc/New Forest CC	MSC CC	11	172	0.96
Central Gaulish samian	LEZ SA	8	28	0.00
East Gaulish samian	RHZ SA	12	417	0.45
Totals		**1140**	**9028**	**7.45**

Table 1 Quantification of the Roman pottery fabrics.

DISCUSSION

The excavation at Hortham Lane provides further evidence of the Roman settlement discovered in the 1969 excavation. The presence of a stone-built well and of two areas of stone surfacing close to several quarry pits suggests that the quarry pits may have been associated with the construction of these features. The Late Iron Age/Early Roman date from the quarry pits may therefore provide a construction date for the well and surfacing, while the material recovered from the backfill of the well and from the occupation layers above the surfaces provides a Late Roman date for their use or disuse. Occupation on the current site therefore outlasted that identified in 1969, which only extended into the 2nd century.

Although no obvious structural remains were identified, it is possible that the areas of hard standing were associated with former buildings. Rectangular spreads of stone have been noted on other Roman sites in the Bristol region, including Cattybrook, Almondsbury (Bennett 1980, 167) and Henbury School (Evans *et al* 2006, 45). These stone spreads have been interpreted as foundation pads for timber buildings and it is possible that a similar interpretation should be applied in the present instances.

The discoveries at Brook Way testify to further evidence for Roman activity in this part of Bradley Stoke, although the focus of this activity presumably lies to the south of the present site. Both sites fit into the pattern of Roman settlement in the Severn Valley of Southern Gloucestershire (Holbrook 2006, 110).

ACKNOWLEDGEMENTS

Both excavations were generously funded by Taylor Woodrow (South West) and we would like to thank Mark Winter of Taylor Woodrow, Andy Mayes of Scott Wilson and David Haigh, Archaeology and Conservation Officer for South Gloucestershire County Council, for their assistance during the course of this project.

The Hortham Lane evaluation was supervised by Clifford Bateman and the excavation by Samantha Evans. The fieldwork was managed by Laurent Coleman and the post-excavation by Annette Hancocks. The illustrations were prepared by Rachael Kershaw and Peter Moore. The site archive and artefacts will be deposited with Bristol City Museum and Art Gallery under accession number BRSMG 2007.27.

The Bradley Stoke fieldwork was supervised by Franco Vartuca and was managed by Simon Cox. The post-excavation was managed by Annette Hancocks. The illustrations were prepared by Peter Moore, Lorna Gray and Jemma Elliott. The site archive and artefacts will be deposited with Bristol City Museum and Art Gallery under accession number BRSMG 2005/88. I am grateful to Neil Holbrook who commented on an earlier version of this report.

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SGHER South Gloucestershire Historic Environment Record.

EXCAVATIONS AT 10-22 VICTORIA STREET, BRISTOL, 2008

by
Simon Roper

INTRODUCTION

This report presents the results of an archaeological excavation carried out at Nos. 10-22 Victoria Street, Bristol. The site (Fig. 1) centred on NGR ST 59151 72836, was situated on the north-eastern side of Victoria Street and approximately 100m south-east of Bristol Bridge. It comprised the car park of a multi-storey commercial office building constructed in the late-1990s. A portion of the existing building frontage incorporated the façades of 19th-century buildings, which were Grade II listed. The south-west flank of the study area was bounded by Victoria Street, the north-west flank by No.8 Victoria Street and yard area, the north-east flank by the site of the former Courage Brewery and the south-east flank by Counterslip.

A number of archaeological excavations have taken place within this area of Bristol in recent years including two on Victoria Street itself. The first of these took place in May and July 2006 at Nos. 55-61, and the second took place in April and May 2007 at Nos. 32-36 located on the opposite side of Counterslip from the study area. Both of these sites produced archaeological deposits containing residual ceramic material dating from the 11th century onwards.

The site was redeveloped in the late 1990s, prior to which an archaeological desk-based assessment was carried out in July 1994 (Jackson 1994), followed later that year by a field evaluation (Longman 1994). Four trenches were excavated during the evaluation; two within the buildings then present on the site and two in the area behind the buildings. Cellars from the 18th century were located in two of the trenches, another contained deposits dating to the 12th century but was truncated by a 17th-century cellar, and one trench located in the area to the rear of the buildings contained deep archaeological deposits dating to between the 12th and 14th centuries.

Based on the results from these investigations further archaeological work was required as a condition of planning consent for the redevelopment of the site in 2008. The archaeological work comprised an excavation and watching brief. The redevelopment entailed internal alterations to the existing commercial office building and construction of an extension at first-floor level at the rear of the premises. The extension was supported on reinforced-concrete columns over the existing parking bay. The archaeological investigations were carried out within the parking area. The excavation took place between April and May 2008, and the watching brief was completed in July 2008.

The underlying geology of the site is Estuarine Alluvium over Mercia Mudstone and the present ground level around the site is approximately 8.67m above Ordnance Datum (aOD).

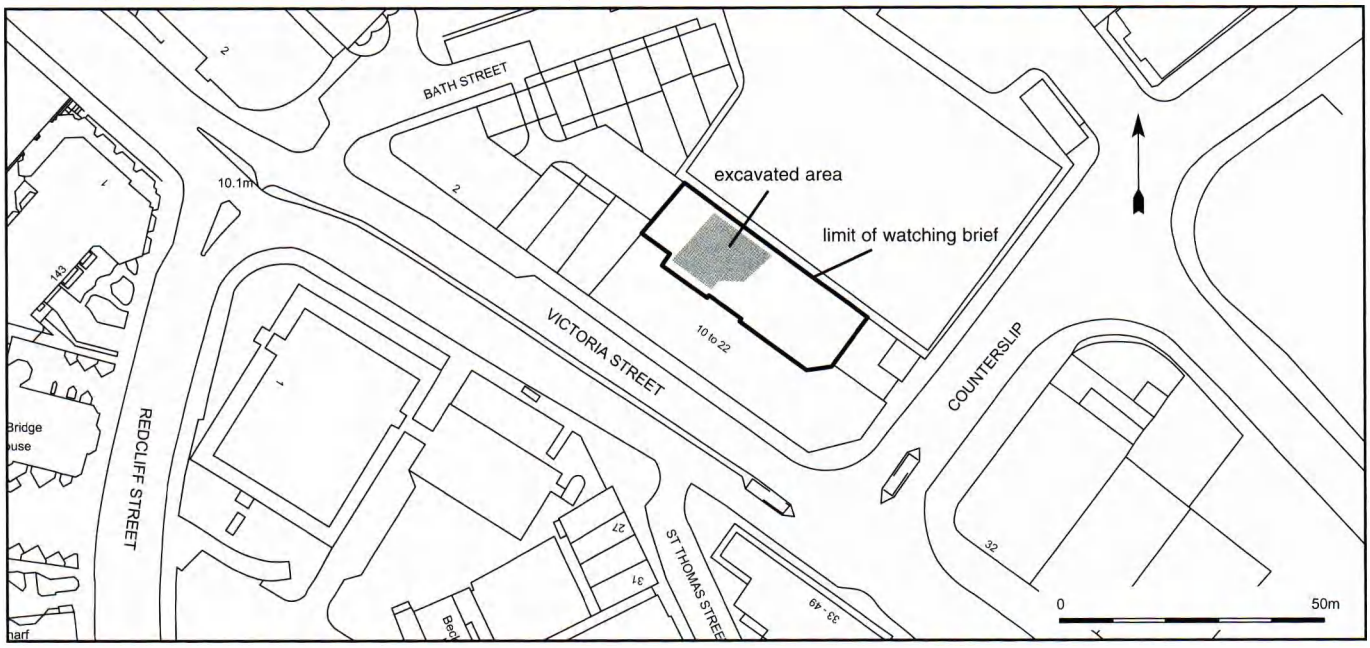


Fig.1 Site location plan.

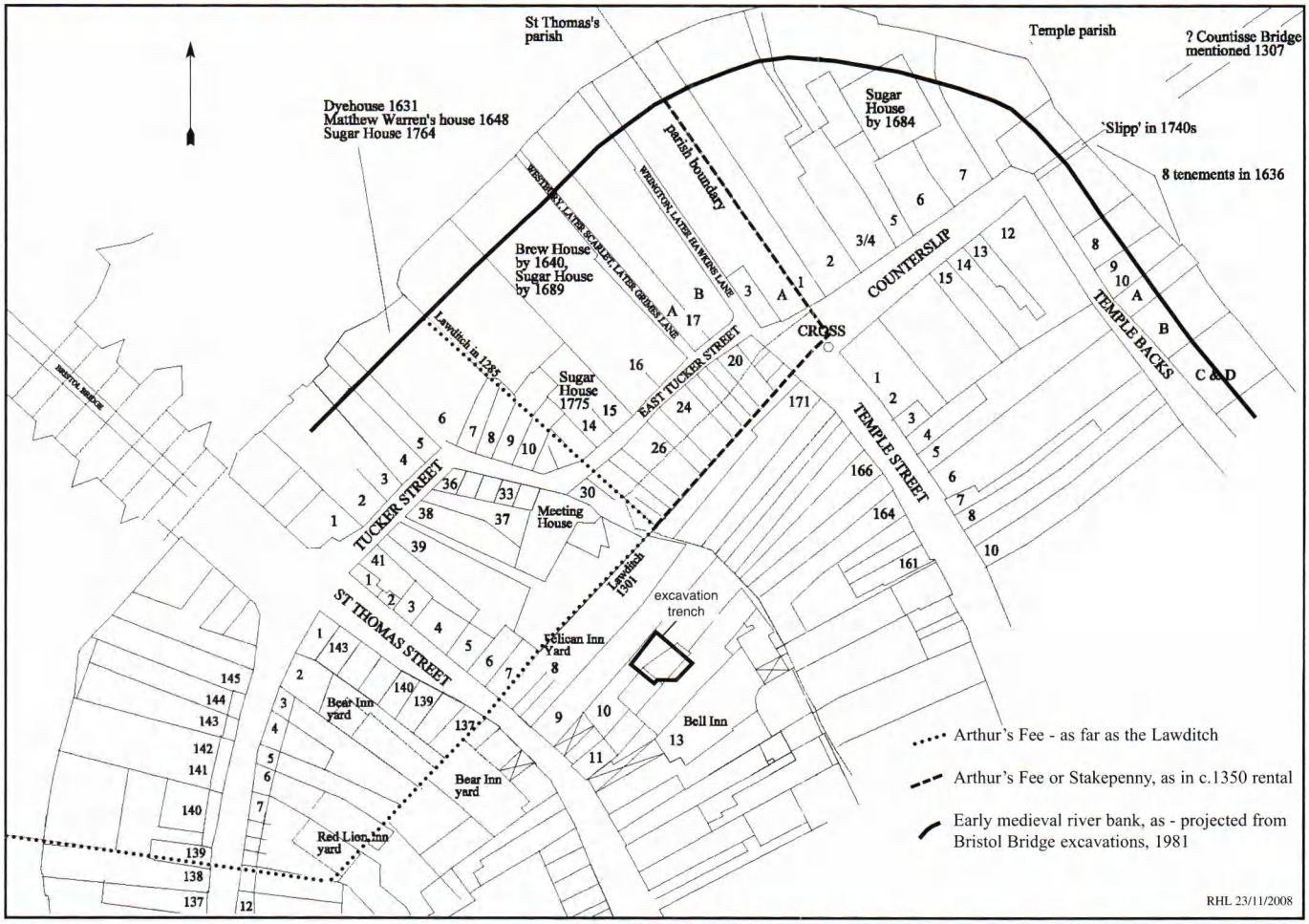


Fig.2 Location of Arthur's Fee.

THE HISTORICAL BACKGROUND

By Dr Roger Leech

The Setting

Though now referred to as nos.10-22 Victoria Street, the study area, or more particularly the area within which the excavations were situated, was historically an area placed within the rear parts of properties in St Thomas Street (nos.7-9). The study area was situated entirely within the parish of St Thomas. This locality was first developed as part of the town of Bristol in the twelfth century with the establishment of the fees of Temple and Redcliff. The study area lay within the Redcliff Fee. It was however very close to another lordship known as Arthur's Fee, developed at an earlier date, *c*1000.

A fee was an area of lordship; through rents, urban fees could yield considerable profits for their lords. The Temple Fee was granted by Robert Earl of Gloucester to the Knights Templar between 1128 and 1148 (Taylor 1875, 275-78). The building of Temple church and a preceptory followed, together with the setting out of Temple Street and the subdivision of the land either side into burgage plots. The Redcliff Fee was developed by Robert Fitzharding, being part of his manor of Bedminster (ed. Cronne 1946, 32-3).

Two main streets were laid out, Redcliff Street and St Thomas Street, each with tenement plots extending back on either side, those on the west of Redcliff Street stretching to the Avon. Redcliff Street was the principal route to the south, towards the Earl of Berkeley's manor of Bedminster. Dendrochronological dating of structural timbers from the excavations at Dundas Wharf has shown that the west side of Redcliff Street was being developed from *c*1123-33 and that quays were being built by 1147-8 (Nicholson and Hillam 1987, 141). The two developments of the Temple and Redcliff Fees were probably undertaken at the same time. The boundary between the two developments was the Law Ditch, which served as a drain and open sewer for the tenements on both sides, in both fees.

The history of Arthur's Fee is less well understood and has been explored in detail only recently (Leech 2009). It was certainly an area of lordship in *c*1285 when the responses to Kirby's Quest, stated that 'Richard Arthur held by baronial tenure 'that part of Redcliff Street known as Arthur's Acre' (ed. Veale 1933, 3-4, 100, see also 107). This, the most extensive survey of property holdings in England since Domesday, was the inquiry initiated by Robert Kirby, Treasurer to Edward I, to provide the Crown with further information on dues and rents (Prestwich 1988, 234-8). It has been argued elsewhere (Leech 2009) that Arthur's Acre was the late Saxon burh defending Bristol Bridge on the south bank of the River Avon, much as the burh of Southwark was probably created to defend the south

end of London Bridge. As at London the bridge was probably a defensive structure built to prevent Viking raiders from sailing upstream into the interior of England, of Mercia and Wessex. The postulated southern boundary of Arthur's Acre was a ditch, one of several known as 'the Law Ditch', its line immediately to the north of the study area (Fig.2); a minor variation in its estimated course would have taken it through the area excavated, in a south-west to north-east direction.

The identification of the properties in St Thomas Street (see below), within which the study area was situated, is best made by reference to the plots as numbered for their compulsory purchase and then demolition for the construction of Victoria Street, *c*1868 onwards. The identification of the former street numbers for this part of St Thomas Street can be attempted from occasional references in the compulsory purchase deeds, from entries in Matthews Directory for the 1860s and from the valuation survey of 1837 (BRO 04249). These sources are not however always in agreement, making the street improvement plan of c1868 (Fig.3, from BRO 07711(15)) an invaluable source. Working largely from the deeds of the properties purchased for the building of Victoria Street, it is possible to reconstruct the tenement histories of the plots on this side of St Thomas Street. The study area lies largely within the plot numbered '14' on the street improvement plan. In 1820 this was formerly an inn known as the Antelope, otherwise the Black Horse. Other inns lay close by, immediately to the south was the Bell Inn. From a plan of c1868 (Fig.4, from BRO 05388(37)) it can be deduced that the excavation area must have included a small part of the 'Ware Rooms' on the north side of the inn courtyard. One plot away to the north was another inn, known until the late 18th century as the Pelican, later known as the London or Talbot Inn. The suggested course of the Law Ditch marking the southern limit of the Fee of Arthur passed through this property.

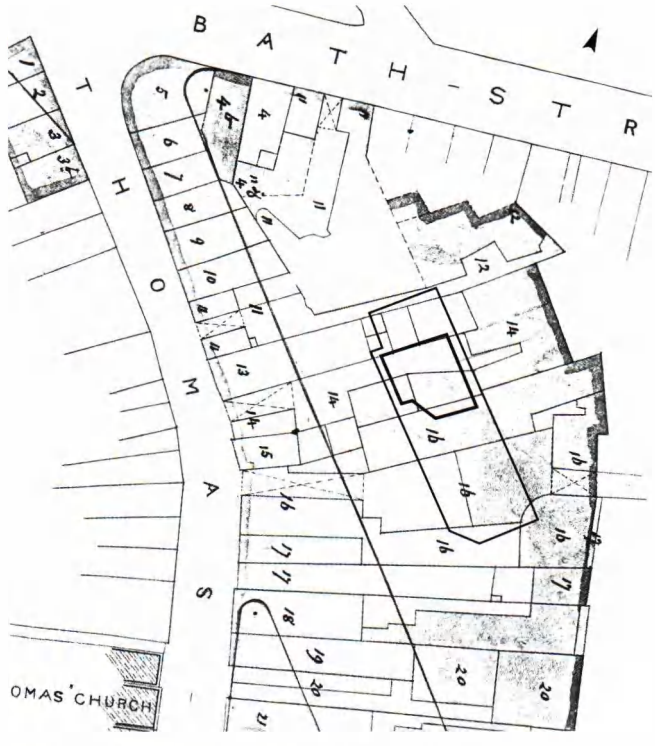


Fig.3 Street improvement plan of c1868.

Tenement Histories

Nos.11 and 12 on the street improvement plan, probably no.6 Thomas Street in 1837, the Pelican Inn, later part of the Talbot or London Inn

By 1658 this was the tenement of Francis Milner (abuttals from no.37 Tucker Street, P/StS/D/12). In 1681 this was the property conveyed by Hollester and others to Goldsmith and others (schedule 06495(1) fol.9: the orginal deed was destroyed by enemy action in January 1941). By 1791 the property was of Joseph Ashe innholder (abuttals from no.5). By 1802 this was the inn formerly the Pelican but then the Talbot (Manchee 1831, 1, 212). In 1809 this was the Pelican Inn, in the same ownership as the Talbot Inn, formerly the fourth lot in Bath Street, held by Robert Smith esq., whose family's interest in this property extended back to at least 1704. From 1811 it was mortgaged by Robert Smith to James Johnson, who in 1816 conveyed the property to James Clifton. The property is located from the street improvement plan of 1868 and a detailed plan (Fig.5, prepared for arbitration alongside the compulsory purchase at that date, from BRO 05408(50)).

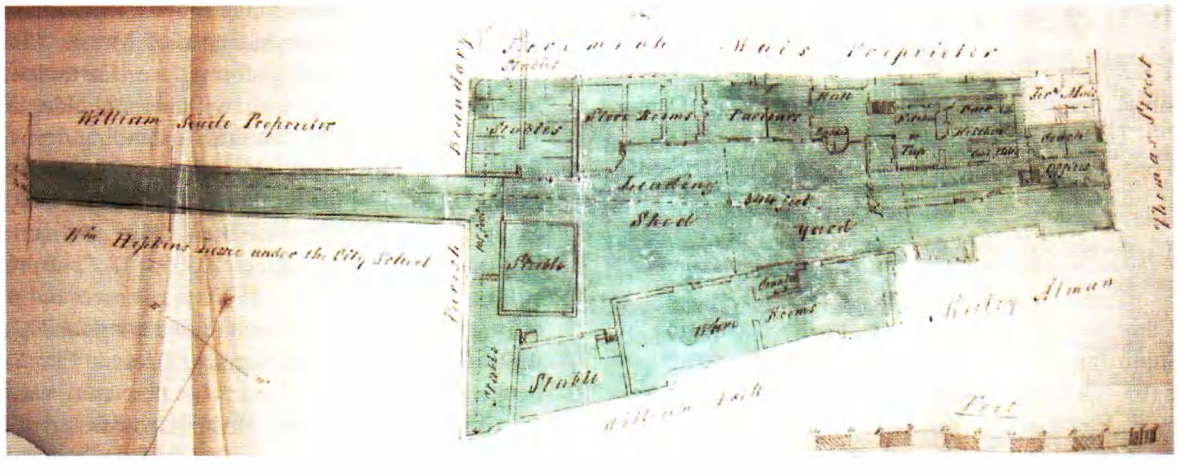


Fig.4 Plan of the Bell Inn c1868.

The site was recorded using the BaRAS continuous numbered recording system. All plans were drawn at a scale of 1:20 and all sections at a scale of 1:10. A site grid was established using a Total Station and linked to the Ordnance Survey grid, with the relative heights of the layers, features and structures related to Ordnance Survey Datum. Photographic recording was carried out with 35mm monochrome print and digital photography. This included detailed photographs of structures, features and deposits and general shots as the work progressed.

All of the finds visible during excavation were collected and recorded as part of the context data. Finds were subsequently cleaned and individually marked with the Bristol City Museum accession number BRSMG 2008/21 and context number. The few small finds recovered from the site were each given a small find number and were recorded in detail on a Small Find Record Form. Suitable dated or datable deposits from sealed contexts were bulk sampled with sample sizes of 40 litres. Sample processing was carried out by BaRAS staff and the assessment by Julie Jones, with 15 bulk samples flotation sieved to a 250 micron mesh size for the floats and 1mm for the residues. In addition two column samples were taken for geoarchaeological analysis, with particular reference to the formation/deposition of a number of alluvial clay deposits.

The Site Phasing

The following broad phasing has been achieved based on an analysis of the stratigraphy, the physical sequence of structures, cartography and a study of the finds.

Period 1: Sequence of alluvial deposits and initial activity on the site, cutting these deposits. 12th - 13th century

Period 2: Deposition of 'garden soil' deposits, and truncation of earlier features. 13th - 14th century

Period 3: Medieval structural evidence and occupation. 14th - 15th century

Period 4: Late medieval - post-medieval structures. 15th - early 19th century

Period 5: Victorian tenements. Late 19th - 20th century

Period 6: Modern. Late 20th century

EXCAVATION NARRATIVE

The Natural

The site lies close to the former course of the river, now the Floating Harbour. The ground level around the site was approximately 8.67m above Ordnance Datum (aOD). The excavation recorded undisturbed natural alluvial clay at a maximum height of 6.82m aOD.

Period 1: Alluvial sequence and initial activity on the site, cutting these deposits (Figs. 6, 7 & 8)

The natural undisturbed alluvium was overlain across the site by a series of clay deposits containing ceramic fragments and animal bone. This 'dirty alluvium' is likely to have been deposited through natural processes. Pottery recovered from these deposits (1198, 1199 & 1200) suggests a date range of late 12th century to early 13th century for their deposition. Running through the centre of the excavated area from south-west to north-east, was a very large linear feature (1163), 5m wide and 0.75m deep. Probably in use as a drainage/boundary ditch, it may have extended to join the Law Ditch known to have been running to the north-east of the site.

Also cutting the early alluvial deposits and subsequently cut by later medieval features, was cut 1159 for a pit 1.41m in diameter located in the south-east corner of the site (Fig. 8). This had been quite badly truncated by the later medieval features cutting it.

The base of both the large ditch and the pit contained thin, dark deposits, and above these a series of silty clay deposits, ultimately filling the ditch. The lower of the fills contained pottery of the mid 13th century.

Period 2: Deposition of 'garden soil' deposits, and truncation of earlier features (Figs. 6, 8 & 9)

Early 'garden soil' deposits composed of brown silty clay with inclusions of charcoal and small stones, overlay the 'dirty alluvium' deposits, and in one case (1187) sealed the large boundary/drainage ditch and its fills. Those deposits within which pottery was recovered dated to between the mid 13th and 14th century. These were predominantly located on the west side of the site.

A large stone filled pit in the south-east area of the excavation, was found to cut the "dirty alluvium" and the earlier pit described in period 1. The fill appeared to be composed of rubble material with large stone blocks with rubbish material such as animal bones mixed in (Plate 2).

Period 3: Medieval structural evidence and occupation (Figs. 8, 10 & 11)

A total of five sections of medieval Pennant sandstone walls bonded with red sandy mortar were found. Two of these sections (1073 & 1085) (Plate 3) were of a large wall running east-west across the site, which cut both the boundary/drainage ditch and the 'dirty alluvium' described in period 1, and the large pit described in period 2. This was the largest structure from this period on the site and may have been a property boundary, running as it did along/overlying the south-east edge of the boundary ditch from period 1 it may have been a continuation of this boundary. The three other sections of wall (1109, 1144, 1145) consisted of their foundations only (Plate 4), all of them either overlying or cutting 'garden soil' deposits described in period 2. On the west side of the site, surface 1055 was formed from rough blocks of Pennant sandstone abutting wall 1144, overlying levelling layers 1054 and 1056, which in turn overlaid a possibly earlier surface 1165. Beneath 1165 were a series of garden soil deposits of period 2. Pottery from 1054 suggests a late medieval date, 14th-15th centuries. On the west side of the site was an occupation layer (1053) overlying medieval wall 1144. This was in turn cut by 1108 (Plate 5), a rubbish pit containing domestic waste deposit 1143 which was sealed by 1146,

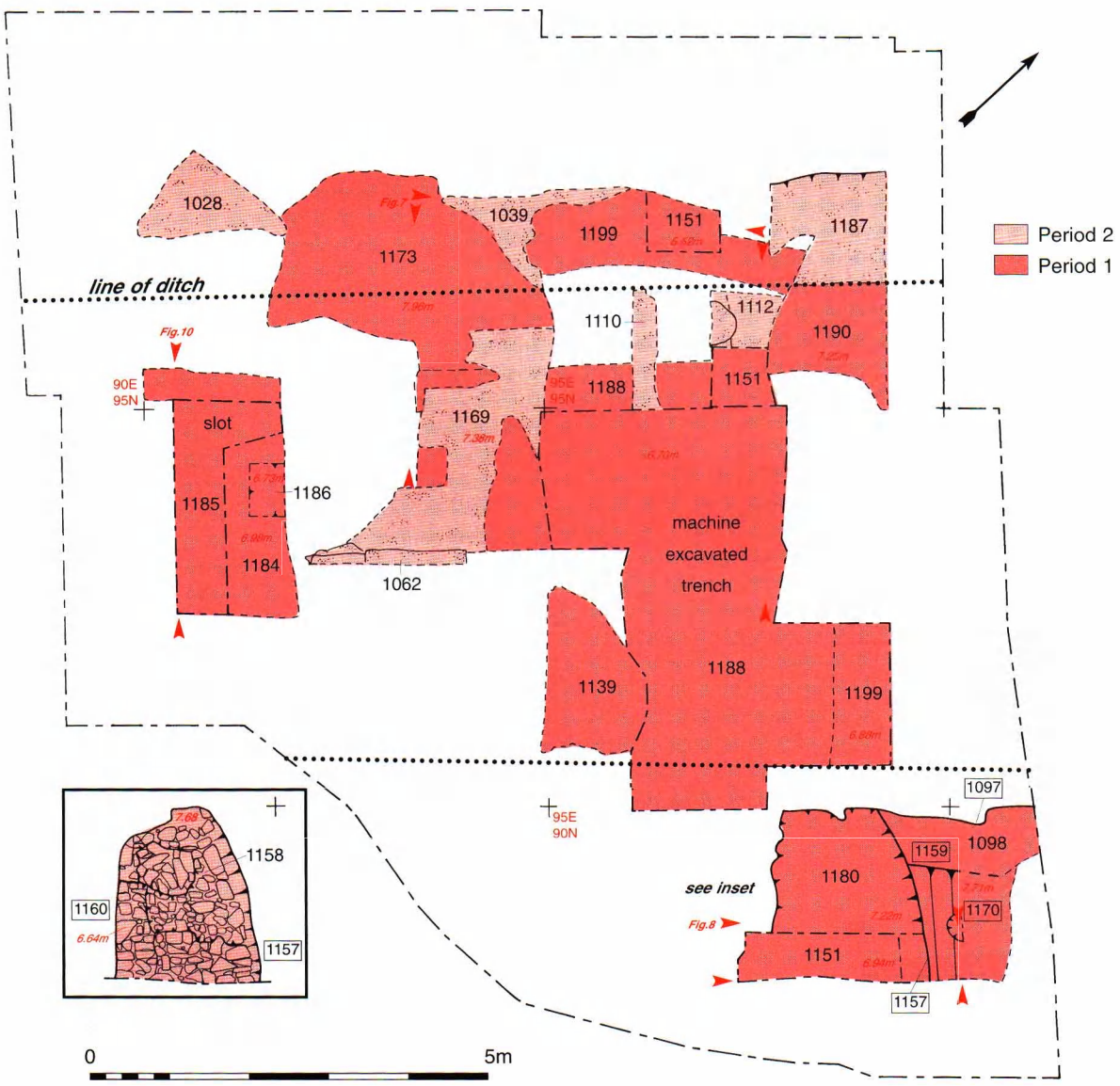


Fig.6 Phase plan, period 1-2 features.

Plate 1 View of the north-east facing section of the boundary ditch 1163.

Plate 2 Rubble-filled pit 1157, facing south-west.

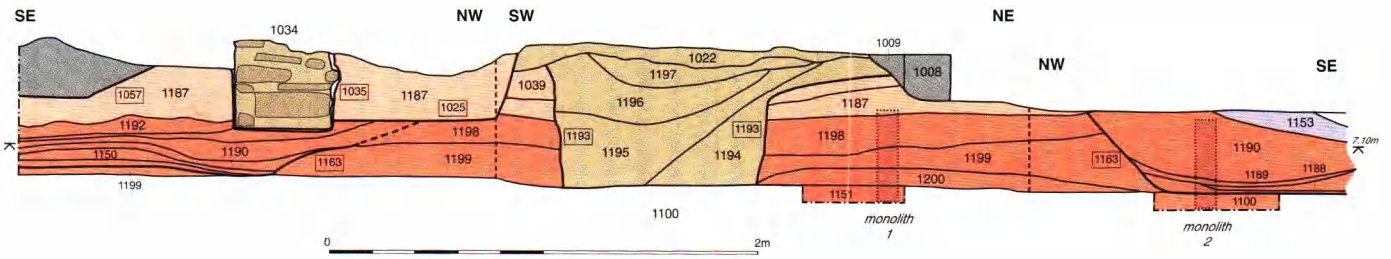
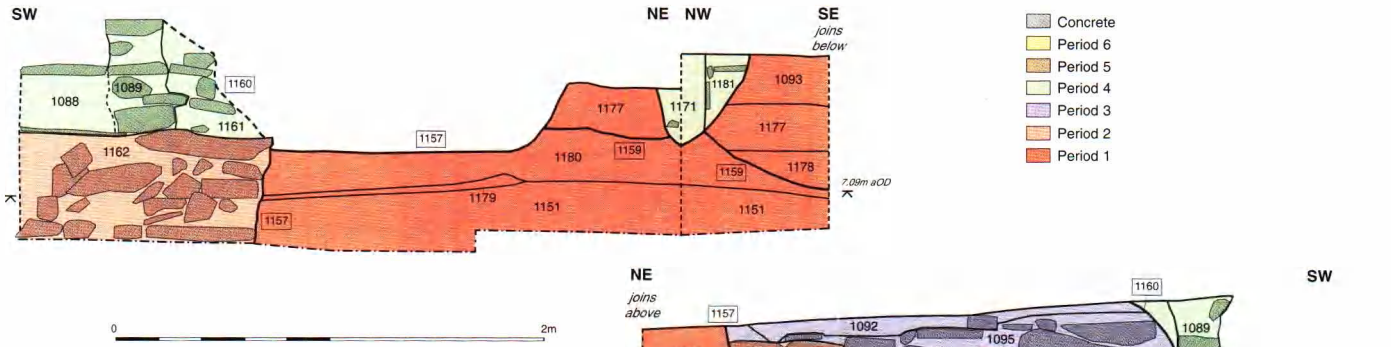


Fig.7 Sections showing ditch 1163 and associated deposits.



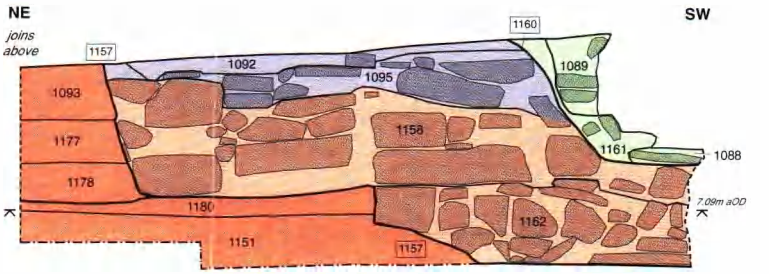


Fig.8
Sections showing pits 1157, 1159 and associated deposits.

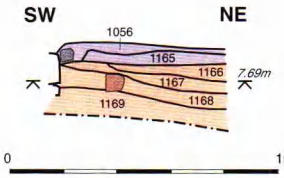


Fig.9 South-east facing section showing garden soil deposits.

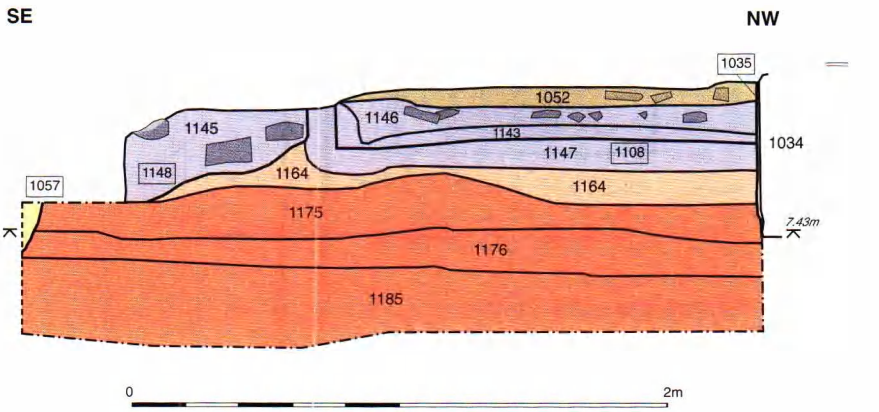


Fig.10 North-east facing section showing pit 1108 and earlier deposits.

redeposited material from the base of the pit. Context 1143 contained pottery with a wide date range of between the 13th and 15th centuries, but also a large number of green glazed ridge tiles of 13th to 14th century date. With material from deposits both overlying and underlying the walls so close in date, a construction date for the walls within the 14th century appears likely. The Ashmead plan of 1854 and the street improvement plan of 1886 (Fig. 3) show property divisions in the approximate location of walls 1144 and 1073/1085, suggesting these boundaries survived into the mid 19th century. Boundary 1073/1085 continues into the 20th century, with the walls of the Victorian tenements built in the 1860s abutting it, and the line of the tenement shown on the 1884 Ordnance Survey plan being a close fit for the line of this wall (Fig. 12).

Plate 3 Medieval boundary wall 1073, facing north-west.

Plate 5 Brick-earth deposit 1147 with cut/depression 1108 within it.

Plate 4 Foundations of medieval wall 1109 and base of drain 1044, looking north-east.

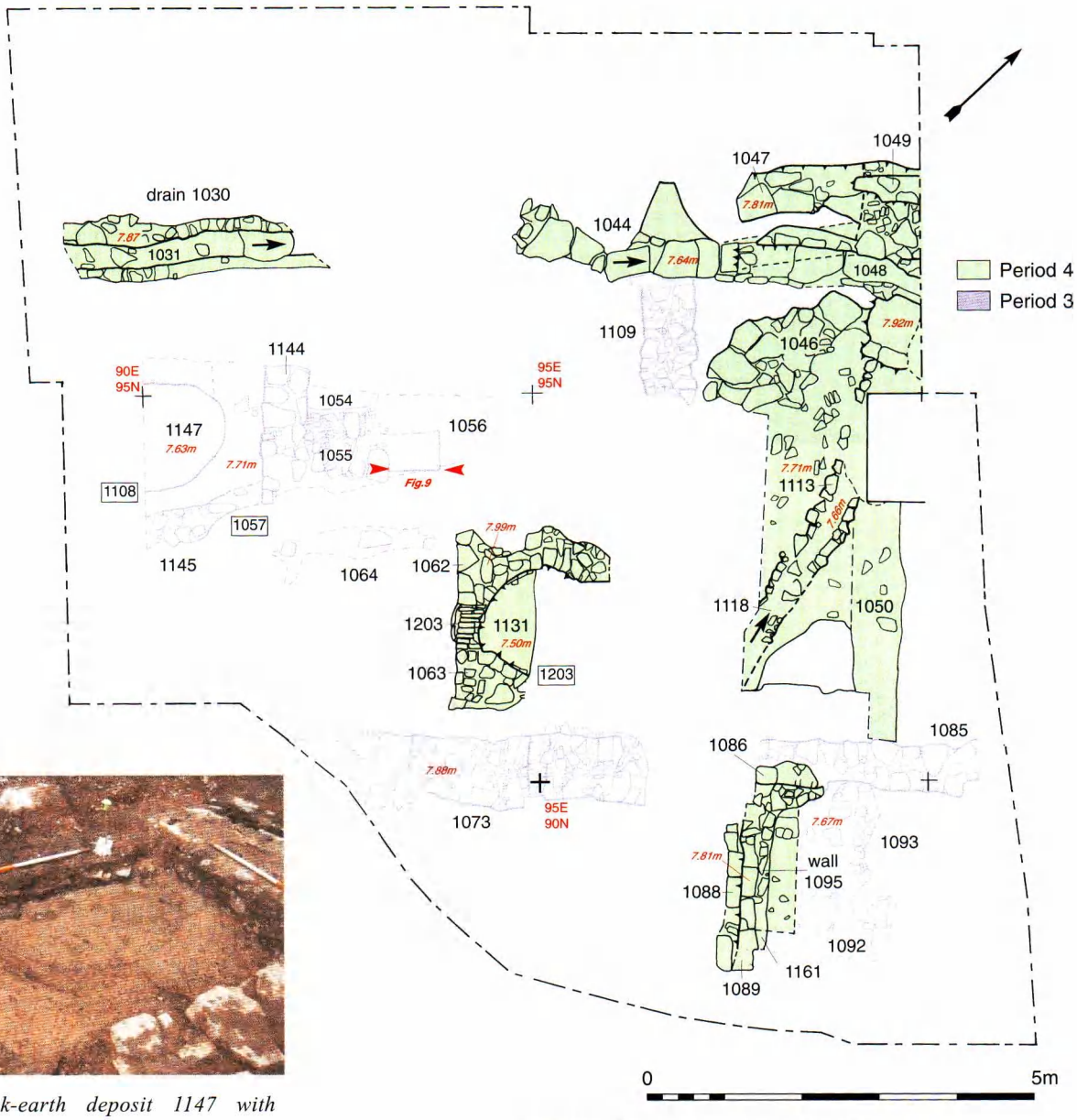


Fig.11 Phase plan, periods 3-4 features.

A number of deposits appeared to be dumps of either the raw materials or excess material for the construction of the walls, for example red sand (1153) and mortar (1095). The former appears to have been dumped onto the silted up boundary/drainage ditch of period 1, in order to level the area off. The latter were dumped above the large pit of period 2, again presumably as a levelling deposit. Their composition suggests deposition took place during or shortly after the construction of the medieval walls described above.

Period 4: Late medieval - early post-medieval structures (Figs. 8 & 11)

A number of alterations and additions were made to the medieval walls described above. To the south of wall 1085 and running north-south was a partially truncated drain (1088 & 1089) with pink mortar (Plate 6), the relationship of which with 1085 was unclear, but is likely to be contemporary or subsequent to the construction of the wall.

Plate 6 View of drain 1088/1089, looking north.

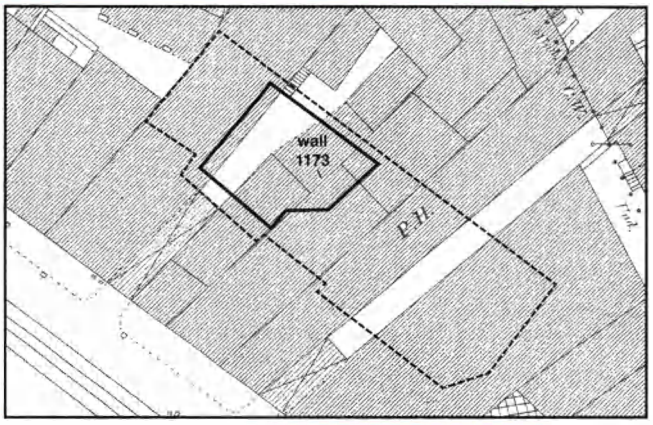


Fig.12 Ordnance Survey 1884 (surveyed 1883) First Edition plan, original scale 1:500.

Plate 7 South-west facing view of surfaces 1046 and 1047 which would have originally covered drain 1044 in the centre.

Similarly a drainage channel running north-south through a section of wall 1073 may have been inserted after the initial construction. A section of wall 1085 had been partially rebuilt (1086) with the mortar used very similar to that used for 1088 and 1089. No datable finds were recovered from these contexts.

Possibly later in date were a number of stone-built drains, one running south-west to north-east (1030, 1044) across the north end of the site that had been truncated by the modern drainage trench, and a second (1113) running south-south-east to north-north-west. These met in the north-east corner of the site (Plate 7), running beneath surface 1046, and overlying possible garden soil deposits 1028, 1112, and 1117. Yard surfaces associated with buildings that fronted on to St. Thomas Street were located in the north-east corner of the site, 1046 and 1047 were formed from large stone slabs and directly overlaid drains 1044 and 1113, with which they are contemporary. These were located within the yard of the inn known as the Antelope, otherwise the Black Horse.

A stone-built circular feature (1063) was located in the southern area of the site (Plate 8), clearly associated with some form of industrial process, and dating to the 16th century onwards. The structure was constructed upon sandy deposits (1131 & 1132) that sat above a levelling layer of redeposited alluvium (1204), which overlay the construction cut (1087) for the medieval wall 1073 of period 3. The structure was originally circular in shape with an entrance/flue on the south-west side, the base of the flue was formed from Pennant sandstone blocks set on their edge, which would have also formed the base of the structure as a whole. However the east side had been heavily truncated, and much of the structure incorporated into a later 19th-century wall of the Victorian tenements. The function of the structure is unknown, it was probably either some sort of stove or kiln associated with an industrial process or possibly an oven associated with one of the inns located in this area. It may have been associated with soap manufacture, with Henry Hort a soapmaker having been in possession of one of the tenements (see Tenement Histories). Pottery of 16th century date was found within the sandy deposits beneath the structure, along with material much earlier in date. Pottery of the same type was also found with the rubble deposit that appears to have been used to partially backfill the structure after it went out of use, but in this case it is certainly residual. In the north corner of the site was found the remnant of a wall (1049) built above

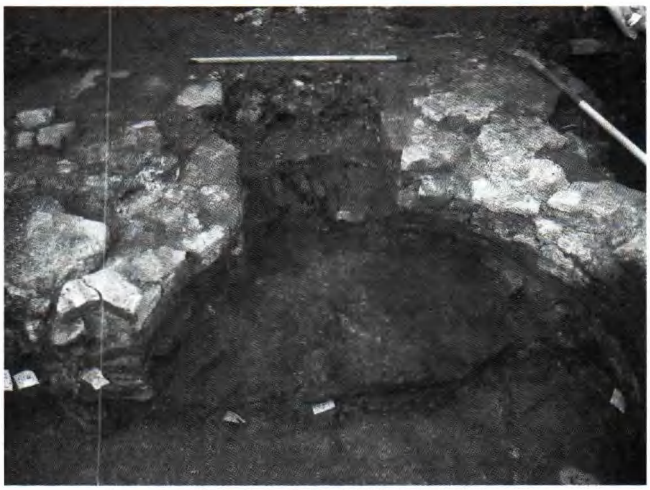


Plate 8 Industrial structure 1063, flue base 1203 and deposit 1131, looking south-west.

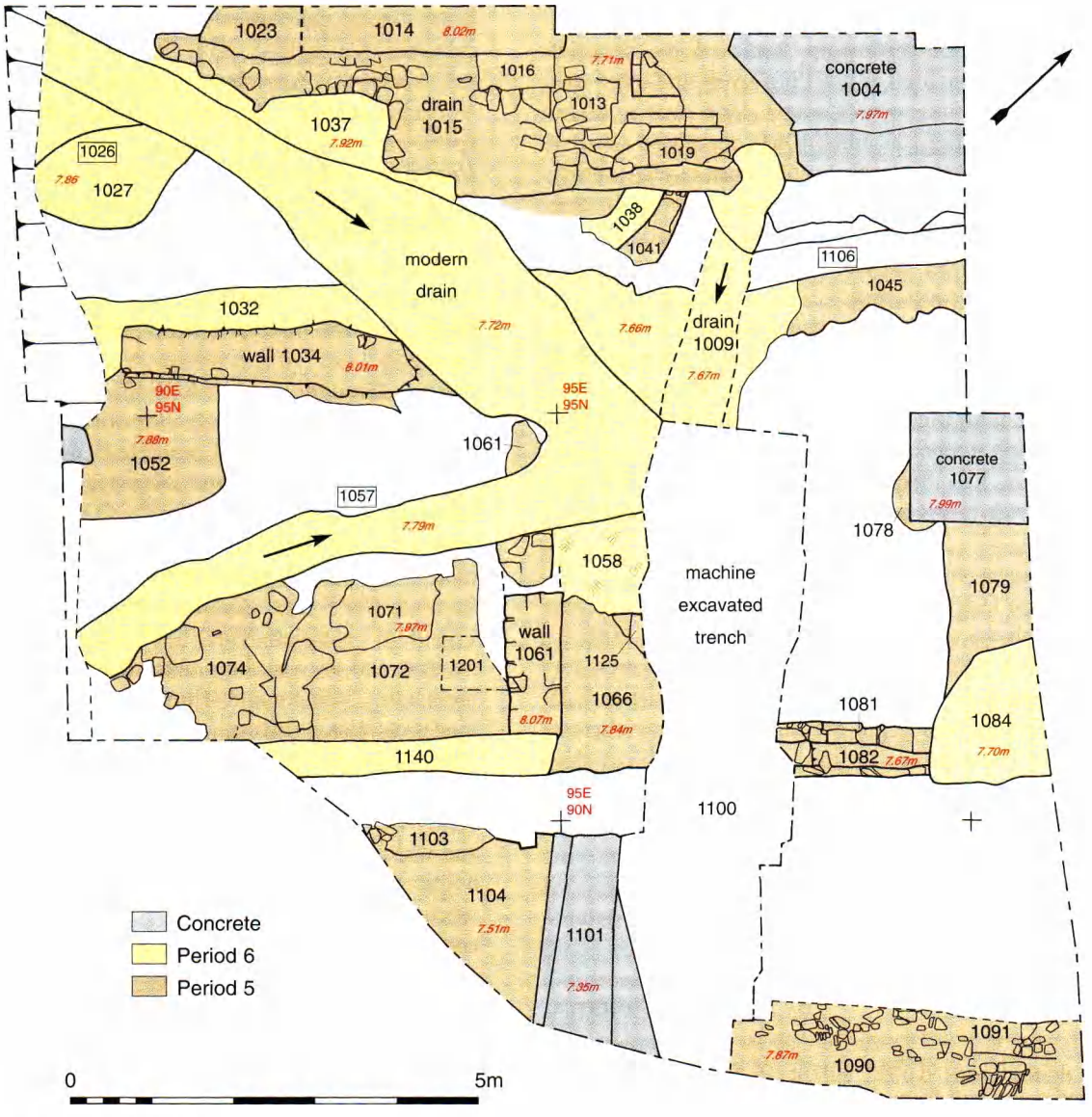


Fig.13 Phase plan, periods 5-6 features.

period 4 floor surface 1047, and running north-east/south-west.

Period 5: Victorian tenements (Figs. 7, 10, 12 & 13)

Directly beneath the modern overburden was a series of 19th-century walls, drains and surfaces most of which related to the construction of Victorian tenements in the 1860s. A number of Pennant sandstone walls, 0.80m wide, ran across the site, cutting or overlying earlier post-medieval and medieval surfaces and structures. At the north end of the site were a number of surfaces (1006, 1015, 1019, 1022) bordered by walls (1014, 1023, 1024) and with drains running through them (1005, 1010, 1017). These are believed to be external yard surfaces of the back plots of the tenements. Some of the walls incorporated earlier structures, such as 1061 that was built over structure 1063 (Plate 9). Walls 1034 and 1061 formed the rear of tenement block No.12 Victoria Street, with wall 1061 abutting medieval wall 1073 and 1085, the other section of this medieval wall had a Victorian drain built flush up against it. This suggests

Plate 9 Victorian tenement wall 1061 built over, and incorporating, structure 1063, looking south-west.

that 1073 and 1085 were still in use as property boundaries into the late 19th century.

Across the site were dumps of demolition material and mortar spreads, some associated with the initial construction

Fabric		Date	Sherds		Weight	
			No.	%	g	%
Pearlware pink-printed	BPT 202	1820s+	2	2.0	6	0.3
Nottingham-style brown stoneware	BPT 212	18th-early 19thC	1	1.0	25	1.1
Modern brown stoneware	BPT 212	19thC	10	9.9	420	17.9
Bristol-type stoneware	BPT 212	19thC	2	2.0	340	14.5
Porcelain (modern, English)	BPT 203	19thC+	6	5.9	46	2.0
Modern lustreware	-	19thC	3	3.0	17	0.7
Pearlware shell-edge	BPT 202	1780-1820	5	5.0	43	1.8
Factory-made slipware	-	1790s-1840s	2	2.0	10	0.4
Waster pearlware blue-printed	-	1780s+	1	1.0	9	0.4
Modern glazed red earthenwares	BPT 336?	18th-19thC	2	2.0	358	15.2
Modern red earthenware unglazed	BPT 201	19thC	9	8.9	325	13.8
Pearlware	BPT 202	1780s+	58	57.4	750	31.9
Total			***101***	***100.0***	***2349***	***100.0***

Table 3 Quantification of modern wares showing total number of sherds, weight and percentages of modern wares.

19th century: the presence of shell-edge pearlware decorated in the Rococo style (with moulded scallop decoration) was produced between 1780s and 1820s, the pink transfer-printed plate is traditionally dated from the 1820s onwards, the factory-made slipware with alternating bands of colour is typical of the 1790s/1840s, whereas the Bristol yellow-glazed stoneware was first used in 1835 (Oswald 1982, 95).

Another clue as to the dating of the modern assemblage is a blue-printed pearlware with a stamped mark under the base (Plate 10). The stamp reads: POUNTNEY[...] around a Latin cross (context 1066). This mark is closer in shape to that used by Pountney and Allies between 1816 and 1835, with the letters arranged in the shape of a semi-oval (Cushion 1994, 291), rather than any of the later marks (with letters arranged in a horseshoe shape, such as Pountney and Goldney between 1836 and 1849; Price 2006, 61).

The modern assemblage is small, in all about 39 different vessels are represented (Table 3). These are exclusively domestic vessels, mainly tablewares in the form of jugs, dishes and plates. There are also horticultural pots, such as flower pots, one of them with moulded decoration in the shape of leaves. Among the stonewares there are four blacking bottles of the standard type with wide mouths, similar in shape to examples already illustrated from the city (eg. Burchill 2000, fig. 26, no. 38). One of the bottles is stamped with the inititals 'S K' and two other bottles bear the stamps 'BLACKING BOTTLE / 14 / J. B. D.' and similarly 'BLACKING BOTTLE / 1 / J. B. D.', possibly J. Bourne, Denby, Derbyshire (1817-1834) (Askey 1981, 134).

The only non-domestic sherd found belongs to an unfinished dish (context 1066). This is a waster or debris from pottery manufacture. The sherd is in its biscuit form, with decoration present but not glazed (Plate 11). The end product would have been a blue-printed pearlware. Of all the potteries around this area the only one producing pearlwares in the 19th century was Water Lane Pottery (Jackson *et al* 1982, 23-28; Price 2006). Among the modern wares, this is the only waster present, the other wares lacking any defects or similar that may reveal them as kiln-waste. Given the proximity of the potteries to 10-22 Victoria Street it is no surprise to find a waster here.

All the modern wares appear to be concentrated in a single context (1066), a demolition/rubble layer in Period 5, and may not represent direct occupancy of this plot. They may have been dumped from elsewhere.

The Clay Tobacco Pipes, Glass and Building Materials
By Reg Jackson

The clay tobacco pipe, glass and building materials assemblages from the excavation were examined.

Methodology

The clay tobacco pipe assemblage was quantified by the number of stem fragments, undatable bowl fragments and datable bowl fragments present. The material was examined to identify the datable bowl forms and the bowls marked with makers' names or initials.

The glass was quantified by the number of fragments in the assemblage. The material was scanned to identify the major types of glass present: window glass, bottle glass and other types of vessel. An attempt was made to date the glass where the fragments were especially diagnostic.

The building materials were quantified by the number of roof tile and brick fragments in the assemblage.

The Assemblage

Clay Tobacco Pipes

Quantification and Description

The site produced 11 clay tobacco pipe fragments from two contexts (1054 and 1066). Of these 10 were stem fragments and one a datable bowl fragment. Context 1066 contained 10 pipe fragments including a spurred bowl of 19th-century date.

Glass

Quantification and Description

The site produced six fragments of glass from a single context (1066). The glass is all from dark green, thick walled bottles of late 17th- and 18th-century date.

Buildings Materials

Quantification and Description

There are 38 fragments of ceramic roof tile from 11 contexts (1066, 1095, 1116, 1143, 1145, 1153, 1158, 1164, 1180, 1190, 1201). The largest number of fragments (22) came from context 1143. One fragment from context 1066 is from a post-medieval red earthenware pantile (Bristol Roof Tile fabric type 13). The remainder are all parts of green glazed ridge tiles, some having thumbed applied strips, dating to the late 13th and 14th centuries. They are mainly of Bristol/Redcliffe fabric (Bristol Roof Tile fabric types 5 and 9) and five are of a grey fabric containing common quartz and clay pellets assigned to Bristol (Bristol Roof Tile fabric type 1). One fragment has been vitrified by fire and cannot be identified as to fabric.

One fragment of red brick came from context 1066.

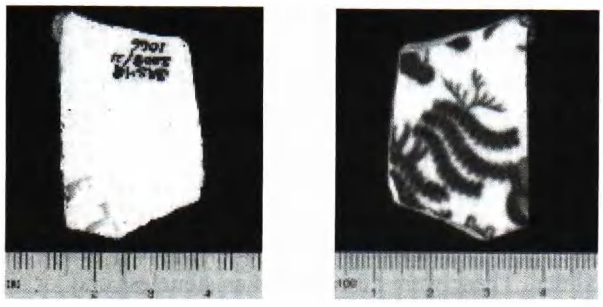


Plate 10 Blue-printed pearlware with the stamp 'Pountney' on the base (left) and oriental decoration on the interior surface.

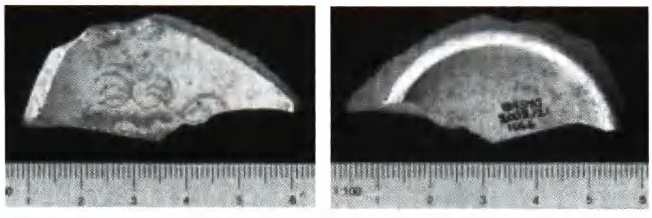


Plate 11 Pearlware waster from context 1066: interior surface (left) and exterior (right).

A complete Pennant sandstone roof tile with one suspension hole and measuring 225mm by 130mm and 25mm thick came from context 1044. The tile is encrusted with an off-white mortar suggesting it has been re-used in another structure.

Plant macrofossils

By Julie Jones

Introduction and Methodology

Fifteen bulk samples were flotation sieved by BaRAS to a 250 micron mesh size for the floats and 1mm for the residues. Assemblages of plant macrofossil remains were very limited, although the condition of the macrofossils was good, with largely waterlogged preservation, although there were several charred cereal grains. Charcoal was also limited with many samples composed of small fragments although an estimate of fragments >2mm overall dimensions, a size suitable for species identification, has been made. Nomenclature and habitat information follows Stace (1991).

Period 1: Alluvial sequence and initial activity on the site

Three deposits (1200, 1199 and 1198) are described as 'dirty' alluvium. All produced very small floats from initial sample sizes of 10-15 litres. Sample composition was largely a mixture of organic and mineral debris, which included 20-30% of mostly small charcoal fragments. Waterlogged macrofossils were limited to occasional sedge (*Carex*), weld (*Reseda luteola*), bramble (*Rubus Glandulosus*) and elder (*Sambucus nigra*), with a single charred oat (*Avena*) grain. A further sample (1179) described as a shell-rich deposit, included 100 land and water snails, with one charred corncockle (*Agrostemma githago*) seed.

The organic basal deposit (1184) of a large ditch included a small macrofossil assemblage similar to that recovered from the 'dirty' alluvium including occasional sedge, henbane (*Hyoscyamus niger*), bramble, elder and nettle (*Urtica dioica*), with a single charred wheat (*Triticum*) grain, plus occasional fish bones.

Four fills (1188, 1150, 1189 and 1190) from ditch [1163] again only included occasional sedge, bramble and elder, with fragmented hazel (*Corylus avellana*) nutshell. There were also occasional snails and fish scales.

Period 2: Deposition of 'garden soil' deposits, and truncation of earlier features

Two early 'garden soil' type deposits (1169, 1187) overlay the 'dirty' alluvial deposits, and have a date range between the 12th and 14th century. Floats from both samples were 60-70% mineral with some organics, but only one nettle seed was noted from 1169.

One context (1158), a large stone filled pit produced no plant remains.

Period 3: Medieval structural evidence and occupation

Levelling layer (1054), which overlay the earlier garden soil deposits and probably formed one of the yard surfaces associated with houses fronting onto St. Thomas Street, included a small assemblage of seeds including sedge, buttercup (*Ranunculus acris/repens/bulbosus*) and elder. One deposit (1153), an upper fill of ditch [1163] included only a single charred wheat grain.

Period 5: Later post-medieval structures

A final deposit (1131) from the base of an industrial structure produced no plant remains.

Conclusions

The majority of the samples from 10-22 Victoria Street produced relatively small floats ranging from <1ml to 95ml, with an overall low concentration of plant macrofossil remains.

The waterlogged assemblages preserved in the features and layers vary little throughout the periods examined and are likely to relate to the local environment of the site. Most taxa are indicative of disturbed or rough ground and include species such as elder, bramble and nettle, with perhaps some suggestion of damp ground from sedges in several samples. Economic evidence from the charred remains was limited to several wheat and oat grains with one charred arable weed, corncockle.

Environmental Archaeological Assessment of Column Samples.

By C.P. Green and C.R. Batchelor

Two column samples were excavated from the site. The overarching aim of the environmental archaeological assessment was to evaluate the potential of the sedimentary sequence for reconstructing the environmental history of the site and its environs. In order to achieve this aim, the environmental archaeological assessment consisted of:

1. Recording the lithostratigraphy of the column samples to provide a preliminary reconstruction of the sedimentary

Depth (m aOD) From	To	Depth (m from surface) From	To	Context Number	Column Sample	Main pollen taxa	Common Name	Concentration 0 (none) to 4 (high)	Preservation 0 (none) to 4 (excellent)
7.37	7.38	0.03	0.02	(1187)	7	cf *Sinapis* type	e.g. Charlock	1	1
7.29	7.3	0.11	0.1	(1198)	7	Lactuceae *Chenopodium* type cf *Cereale* type	Daisy family e.g. Fat hen e.g. Barley	1-2	1
7.21	7.22	0.19	0.18	(1198)	7	*Centaurea nigra* *Chenopodium* type Lactuceae	Black knapweed e.g. Fat hen Daisy family	1-2	2
7.13	7.14	0.27	0.26	(1198)	7	cf Poaceae cf *Polypodium vulgare* cf *Anthemis* type Lactuceae *Alnus* *Aster* type	Grass family Polypody e.g. corn chamomile Daisy family Alder e.g. Aster	2	2
7.05	7.06	0.35	0.34	(1199)	7	*Alnus* cf Poaceae *Chenopodium* type Sphagnum *Corylus* type	Alder Grass family e.g. Fat hen Sphagnum moss e.g. Hazel	1-2	2
6.97	6.98	0.43	0.42	(1199)	7	*Centaurea nigra* *Anthemis* type cf *Ilex* type *Polypodium vulgare*	Black knapweed e.g. corn chamomile Holly Polypody	1-2	2
6.89	6.9	0.51	0.5	(1200)	7	Poaceae *Centaurea nigra* *Sinapis* type *Chenopodium* type *Polypodium vulgare* cf *Centaurea cyanus*	Grass family Black knapweed e.g. Charlock e.g. Fat hen Polypody Cornflower	2-3	2
6.81	6.82	0.59	0.58	(1200)	7	*Alnus*	Alder	1	2
6.73	6.74	0.67	0.66	(1151)	7	*Corylus* type *Polypodium vulgare*	e.g. Hazel Polypody	1	2
6.65	6.66	0.75	0.74	(1151)	7	*Chenopodium* type Lactuceae *Polypodium vulgare* Poaceae cf *Centaurea nigra* *Corylus* type	e.g. Fat hen Daisy family Polypody Grass family Black knapweed e.g. Hazel	2	1-2
7.13	7.14	0.08	0.07	(1190)	8	cf Poaceae *Corylus* type cf *Polypodium vulgare* cf Caryophyllaceae *Alnus*	Grass family e.g. Hazel Polypody Pink family Alder	1-2	1-2
7.05	7.06	0.16	0.15	(1190)	8	Poaceae *Polypodium vulgare* *Chenopodium* type Lactuceae	Grass family Polypody e.g. Fat hen Daisy family	1-2	1-2
6.97	6.98	0.24	0.23	(1190)	8	*Ulmus* Poaceae *Chenopodium* type *Polypodium vulgare*	Elm Grass family e.g. Fat hen Polypody	2	2
6.89	6.9	0.32	0.31	(1190)	8	Poaceae *Chenopodium* type *Polypodium vulgare* Lactuceae *Cereale* type cf *Alnus* cf *Anthemis* type	Grass family e.g. Fat hen Polypody Daisy family e.g. Barley Alder e.g. Corn chamomile	2-3	2-3
6.81	6.82	0.40	0.39	(1189)	8	Poaceae *Aster* type Lactuceae Poaceae >40 m	Grass family e.g. Aster Daisy family Grass family	2	2
6.73	6.74	0.48	0.47	(1188)	8	*Anthemis* type Poaceae	e.g. Corn chamomile Grass family	1	2
6.65	6.66	0.56	0.55	(1100)	8	*Corylus* type *Chenopodium* type Poaceae *Centaurea nigra*	e.g. Hazel e.g. Fat hen Grass family e.g. Black knapweed	2	2-3
6.57	6.58	0.64	0.63	(1100)	8	*Anthemis* type *Chenopodium* type cf *Polypodium* type	e.g. Corn chamomile e.g. Polypody	1	3

Table 6 Pollen-stratigraphic assessment.

than the *c*5m wide ditch found here. This may indicate that it was a less important boundary than the major Law Ditches.

Whatever the precise function of the ditch it appears to have gone out of use in the late 13th century, either through neglect or the deliberate backfilling of the feature. Garden soil deposits were established above the dirty alluvium layers, and stone walls of medieval tenements were built over the redundant ditch. The most substantial of these walls, 1073 & 1085, appears to be a continuation or re-establishment of the ditch boundary line, running as it does above the south-east edge of the ditch. In addition to surviving into the later medieval period this particular boundary also survived until the mid 1990s when, apart from the façades, the Victorian buildings were demolished.

Other medieval property boundaries also had long existences, with the line of the 14th-century wall 1144 closely matching a property division on Ashmead's 1854 plan.

The yard surfaces located in the north corner of the site and the drains which met and ran under them were probably associated with the inn known as the Antelope recorded on this site. From Ashmead's 1854 plan this area of the site was in the yard of the inn, the entrance to which was off St. Thomas Street. An area of Pennant slabs was also found within trench 4 of the 1994 field evaluation. This trench was located in the haulingway of No. 12 Victoria Street that also would have been within the area of the inn's yard, and therefore these Pennant slabs were probably a continuation of the yard surface.

The function of the circular industrial structure is not known, although it had clearly gone out of use by the 1860s when the Victorian tenement wall was built across it. The Ashmead 1854 plan shows the area it is located within as a building open on the north-east side, on to the yard area previously of the Antelope Inn. Possibly the structure was connected with the inn.

In the 1860s with the laying out of Victoria Street the medieval buildings were demolished and replaced with Victorian tenements. Many of these tenements had cellars which destroyed all trace of the earlier occupation on the site, the area of excavation being a small section between the cellars where the sequence of occupation survived. The tenement foundations exposed during the excavation fit well with the buildings depicted on the 1884 First Edition Ordnance Survey plan (1:500), and as noted above still followed the line of many of the medieval boundaries. These boundaries continued to be used for over a century until their demolition in the 1990s.

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MONUMENT & EVENT:
THE PLUME OF FEATHERS - WINE STREET SEA MONSTER

by
Andrew Townsend

INTRODUCTION

This research note discusses the context of a Bristol newspaper advertisement of 1749 inviting members of the public to view a 'Sea Monster' on display at the Plume of Feathers in Wine Street. The advert exemplifies the British public's fascination for the mysterious and the exotic in the 18th-century. From an archaeological perspective, it demonstrates the capacity of newspapers to add a human dimension to the events that took place in the buildings and other places that comprise our historic environment.

The Newspaper in the 18th Century

The 17th and 18th centuries witnessed the beginning of newspaper production in Britain. In the early years, the newspaper was an item of relative luxury, affordable only to a privileged few. As time progressed, however, the 'paper' became available to a much wider audience and eventually could be found distributed in the coffee houses, alehouses, inns and barber shops of towns and cities throughout the country. The earliest newspapers were produced in London but, from the early 18th century, began to appear in ever-increasing numbers throughout the provinces.

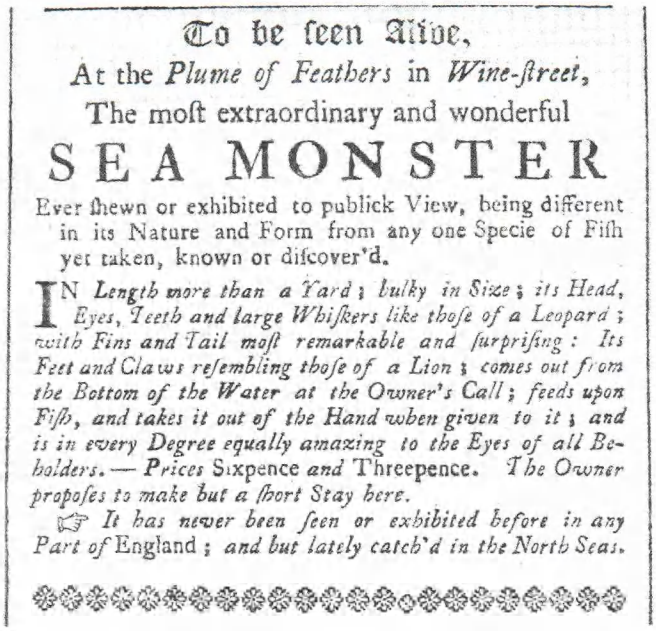
Bristol is credited with one of the earliest provincial newspapers, *The Bristol Post-Boy*, examples of which are held at the Bristol Central Library, the earliest of which dates to 1704. As the 18th century advanced, new titles began to appear in Bristol, including the *Bristol Weekly Intelligencer*, *Bristol Oracle* and *Felix Farley's Bristol Journal*.

In order to maintain healthy readership levels, publishers strived to produce a newspaper that was both informative and entertaining. In this respect, news from abroad, particularly regarding British military campaigns and trade, played a particularly important role. Many other aspects of contemporary life were also recorded such as local catastrophes and crimes.

Newspaper Advertisements

The successful newspaper also attracted advertisers, the revenue from which comprised an important source of income for the publisher. Many advertisements found in 18th-century newspapers afford a tantalizing glimpse into life in the cities, towns and countryside of Britain some three centuries ago. In addition to historical content, there is often a fascinating charm apparent in the wording that makes entertaining reading in its own right.

The advertisements covered a wide range of topics. The most common themes include the sale or letting of property and sale of entire contents of houses and commercial premises. In addition to remedies for illnesses, the sale of luxury or exotic imports were also widely advertised including tea, coffee, timber, ivory (elephants' teeth), fruit, birds, snuff, wines and spirits. A further class of advert concerned public entertainment in playhouses, pleasure gardens and other communal places.



To be ſeen Alive,
At the *Plume of Feathers* in *Wine-ſtreet*,
The moſt extraordinary and wonderful
SEA MONSTER
Ever ſhewn or exhibited to publick View, being different in its Nature and Form from any one Specie of Fiſh yet taken, known or diſcover'd.

IN *Length more than a Yard; bulky in Size; its Head, Eyes, Teeth and large Whiſkers like thoſe of a Leopard; with Fins and Tail moſt remarkable and ſurpriſing: Its Feet and Claws reſembling thoſe of a Lion; comes out from the Bottom of the Water at the Owner's Call; feeds upon Fiſh, and takes it out of the Hand when given to it; and is in every Degree equally amazing to the Eyes of all Beholders.* — *Prices* Sixpence *and* Threepence. *The Owner propoſes to make but a ſhort Stay here.*

☞ *It has never been ſeen or exhibited before in any Part of* England; *and but lately catch'd in the North Seas.*

Fig.1 Advertisement for the Plume-of-Feathers Wine Street Sea Monster from the Bristol Weekly Intelligencer, December 1749 (Bristol Central Library).

The Wine Street Sea Monster

The advertisement to view the Sea Monster at the Plume of Feathers in Wine Street was placed in the *Bristol Weekly Intelligencer* in December 1749 (Fig. 1):

To be seen Alive, At the Plume of Feathers in Wine-Street, The most extraordinary and wonderful SEA MONSTER Ever shewn or exhibited to publick View, being different in its Nature and Form from any one Specie of Fish yet taken, known or discover'd.

In Length more than a Yard; bulky in Size; its Head, Eyes, Teeth and large Whiskers like those of a Leopard; with Fins and Tail most remarkable and surprising: Its Feet and Claws resembling those of a Lion; comes out from the Bottom of the Water at the Owner's Call; feeds upon Fish, and takes it out of the Hand when given to it; and is in every

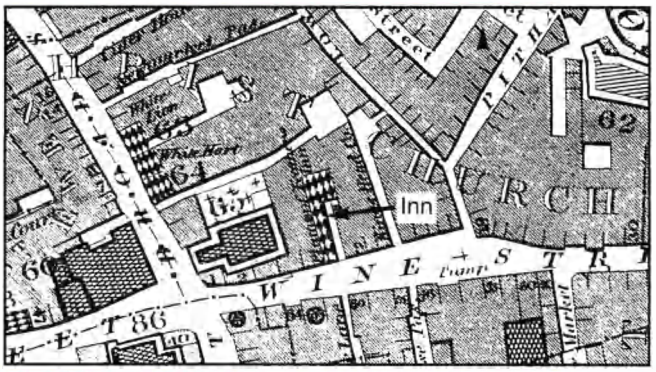


Fig.2 Extract from Plumley & Ashmead's 1828 map of Bristol depicting Wine Street and the Plume of Feathers Inn.

Degree equally amazing to the Eyes of all Beholders. - Prices Sixpence and Threepence. The Owner proposes to make but a short Stay here.

It has never been seen or exhibited before in any Part of England; and but lately catch'd in the North Seas.

The curiosities periodically displayed at the Plume of Feathers were not, however, confined to animals. An advertisement in *Felix Farley's Bristol Journal* in October 1752 notes:

Just arriv'd from the Kingdom of IRELAND, And to be seen at the Plume of Feathers in Wine-Street, A BEARDLESS YOUTH, Not Sixteen Years of Age, Full Seven Feet Three Inches high, with Limbs every Way proportionable.

He is allowed to be the most Gigantick (though a BOY), ever seen, and may be properly call'd the WONDER OF THE WORLD. (Continues.)

In addition to the usual items on sale, The Plume of Feathers appears also to have served as an outlet for exotic goods. An advertisement in *Felix Farley's Bristol Journal* in October 1755 notes for sale 'Some fine healthy canary birds, of various colours; Just arrived from Germany'.

Where then in Bristol did all this take place?

The Plume of Feathers in Wine Street

Wine Street appears on a number of early maps of Bristol including Jacobus Millerd's map of 1673 which depicts buildings on both sides of the street. The Plume of Feathers apparently comprised one of twelve alehouses or inns operating in Wine Street in the mid-18th century. Plumley & Ashmead's map of 1828 depicts a Plume of Feathers at the western end of the street, almost next door to Christ Church (Fig. 2). Prior to severe damage suffered during World War II, Wine Street and its environs comprised part of a bustling commercial quarter of the City. Today, the street remains a busy thoroughfare although has lost much of its historical atmosphere. Assuming that the Plume of Feathers mentioned in the present advertisement is that detailed on Plumley & Ashmead's 1828 map, the site lies under the Prudential Buildings, built in the 1950s (Plate 1).

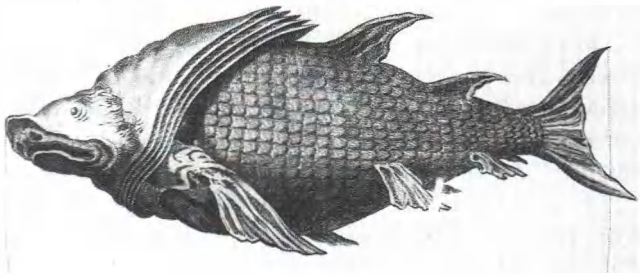


Fig.3 Illustration of 'A remarkable sea-monster, or non-descript fish' included in the Gentleman's Magazine, 1766 (Bristol Central Library).

Plate 1 View of Wine Street from the eastern end with the 1950s Prudential Buildings centre of picture.

DISCUSSION

Written accounts of mysterious sea-creatures can be traced back to the medieval period. Images produced in the 16th century include those depicting sailing ships under attack by a gigantic sea-monster, or serpent (Hutchins 1968, 24). In more recent centuries, particularly the 19th, there was considerable debate and scepticism regarding the existence of such creatures, with many reports eventually dismissed as fictitious or exaggerated. The creatures reported included both sea monsters and mermaids, not only abroad, but also from the shores of Britain (Carrington 1957; Hutchins 1968).

Images of creatures such as mermaids and sea monsters naturally featured in many published accounts. The *Gentleman's Magazine* contains numerous 18th-century accounts; a report from Halifax, Nova Scotia, records the capture of a 'female sea monster', clearly a mammal, in 1752:

A few days since was taken in our harbour a female sea monster, as big as a large ox, and something resembling one, covered with short hair of a brownish colour, the skin near one inch and half thick, very loose and rough, the neck thick and short, resembling that of a bull, the head small in proportion to the body, and very like a crocodile; in the upper jaw were two teeth of about ten inches long, and crooked downwards; the legs very short and thick, ending with fins and claws like those of a sea turtle; the flesh and inwards being cut up resembled those of an ox or horse.

A 'remarkable sea-monster, or non-descript fish' captured off the port of Sète, Languedoc, was illustrated in

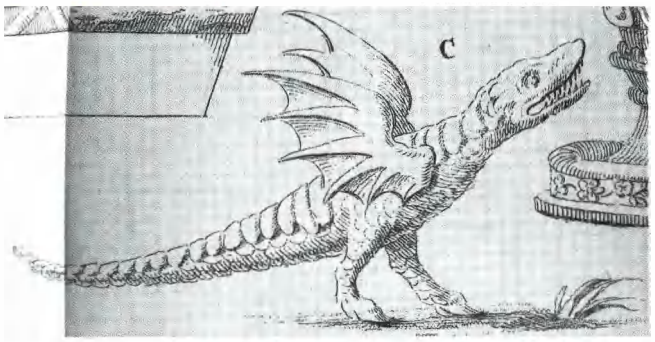


Fig.4 Illustration of 'sea monster' included in the Gentleman's Magazine, 1749 (Bristol Central Library).

the *Gentleman's Magazine* in 1766 (Fig. 3). In this instance, the creature is clearly a fish, but other illustrations depict animals that accord more with what the majority of people would expect a 'monster' to look like, such as that illustrated in 1749 (Fig. 4).

As noted earlier, the mermaid also featured in reports. An example, described as a 'mermaid' or 'siren' caught in the Mediterranean in 1774, presumably preserved, was on display in London, as reported in the *Gentleman's Magazine* in 1775 (Fig. 5):

Its face is like that of a young female; its eyes a fine light blue; its nose small and handsome; its mouth small; its lips thin, and the edges of them round like that of the codfish; its teeth are small, regular, and white; its chin is well-shaped, and its neck full. Its ears are like those of the eel, but placed like those of the human species, and behind them are the gills for respiration, which appear like curls. Some are said to have hair upon the head; but this has none, only rolls instead of hair, that, at a distance, may be mistaken for short curls. But its chief ornament is a beautiful membrane or fin rising from the temples, and gradually diminishing till it ends pyramidically, forming a foretop like that of a lady's head dress. It has no fin on the back, but a bone like that of the human species. Its breasts are fair and full, but without nipples; its arms and hands are well proportioned, but without nails on its fingers; its belly is round and swelling, but no navel. From the waist downward the body is in all respects like the codfish. It has three sets of fins, one above the other, below the waist, which enable it to swim erect upon the sea; and it is said to have an enchanting voice, which it never exerts except before a storm. - The proprietor says it was taken in the Gulph of Sanchio, in the Archipelago or Ægean Sea, by a merchantman trading to Natolia, Aug. 1774.

Fig.5 Illustration of 'syren' or 'mermaid' included in the Gentleman's Magazine, 1775 (Bristol Central Library).

The enterprising were quick to realise that profit could be made from the public display of creatures or fakes that could be passed-off as mermaids or sea monsters. The creatures were also sought by 19th-century collectors and naturalists, hence the appearance of 'stuffed mermaids' (Carrington 1957, 13). Many fake mermaids originated in Japan (*ibid,* 14).

The numerous accounts suggest that the 18th/19th

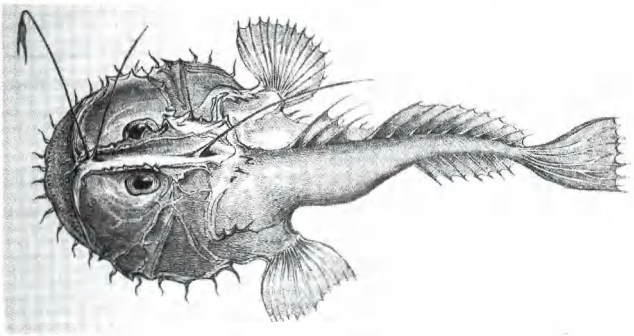


Fig.6 Illustration of the angler fish taken from William Yarrell's History of British Fishes (1859) (Bristol City Museum & Art Gallery).

century phenomena of the sea monster and mermaid was rooted in a combination of factors, including myth, fictitious reports and strange creatures accidentally caught by fishermen. Where actual examples were concerned, these comprised a range of animal species or complete fakes, the fake mermaids often made by stitching the torso of a monkey to the tail-section of a large fish (*ibid,* 14; Hutchins 1968, 30).

The myth surrounding creatures such as mermaids and sea monsters had entrenched itself in the 18th- and 19th-century mindset, a situation exploited by the business-minded who continued to organize displays at exhibitions and fairs. In 1886 a 'Living Mythological Mermaid' was advertised for viewing at London's Royal Aquarium (Fig. 8). This appears, however, to have been a pure illusion created by a 'mermaid' sitting in an air-filled tank placed within a water-filled tank.

CONCLUSION

The event that took place in the Plume of Feathers in December 1749 reflects the penchant in 18th-century Britain for the mysterious and the exotic. But what exactly was the Sea Monster advertised? The literature abounds with likely candidates. For instance, a fish known as the angler provides for quite a terrifying spectacle (Fig. 6).

It would appear, however, that the creature was more likely to be the common seal (Fig. 7). Although not

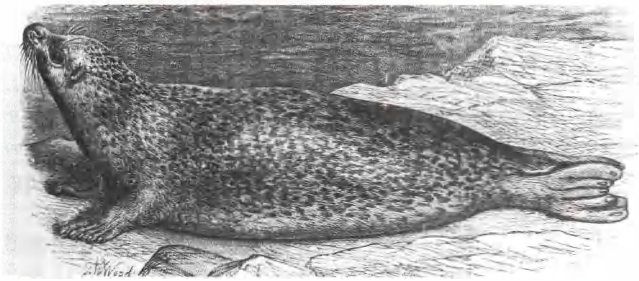


Fig.7 Illustration of a common seal taken from Richard Lydekker's The Royal Natural History (1894) (Bristol City Museum & Art Gallery).

'monstrous' in appearance (at least by today's standards) the animal does, however, bear attributes that correspond well with those described in the advertisement (Fig. 1), although lacks fins. Unlike a number of instances where creatures were preserved/embalmed, the Wine Street Sea Monster was clearly alive. In this respect it is interesting to note that, while often aggressive in the wild, the common seal is known to be quite tame and placid when in captivity.

Researching 18th-century newspapers is a pursuit full of many surprises. It was shortly after completing the preliminary research for this note that a further advertisement was found, this time for a 'Young Mermaid' on display near the Lamb Inn in Broadmead at the time of the Bristol Fair. The advert was placed in the *Bath Journal* in July 1749, some five months earlier than that for the Plume of Feathers Sea Monster. The advertisement describes how the animal was caught on the 'Acapulca Shore' after a six-hour chase by crew from the privateer *Adventure*. Some detail about the chase is given in the advertisement which adds a rather sad dimension to the story. It appears that the crew of the ship were chasing not one, but two animals - a mother and pup - and were using firearms in their quest. The mother eventually fled leaving the pup to the mercy of the assailants. The advertisement describes how these poor creatures 'began to sing alluringly' when driven to the shore. As with the creature on display at the Plume of Feathers, the present 'Young Mermaid' (also referred to as a 'sea-monster' in the advertisement) is likely to have comprised a seal.

In addition to historical narrative, newspapers also provide us with 'snapshots' of life in the cities, towns and countryside of Britain over the past four centuries. Read an 18th-century newspaper and you will find yourself transported back in time.

Fig.8 Extract from advertisement for a 'Living Mythological Mermaid' on display at the Royal Aquarium in 1886 (©British Library Board, Evan.817).

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PORTABLE ANTIQUITIES ROUNDUP

by
Kurt Adams

INTRODUCTION

It has been over five years since the advent of the Gloucestershire and Avon Finds Liaison Officer post for the Portable Antiquities Scheme (PAS) and in that time we have seen the level of recording increase greatly year on year. Perhaps most importantly we have seen the level of findspot accuracy increase dramatically as finders are educated about the importance of this information. It is the findspot that holds most of the important archaeological information and allows us to tie it in with other archaeological activity taking place in the local vicinity, thereby enriching the historical record. Furthermore, the greater the detail of the recorded findspot the more archaeological information we can gather. This is illustrated in the example below.

RECENT FINDS FROM AVON

The value of the grot - Database number: to be assigned

Over the previous year, Peter Twinn (an archaeology student and metal detectorist) has been surveying a group of fields in South Gloucestershire. The most common artefacts from these fields were over 400 copper alloy Roman coins. These were of extremely poor quality, which has led to them being nicknamed 'grots'. As a result, finders would sometimes ignore them assuming they had little or no archaeological value.

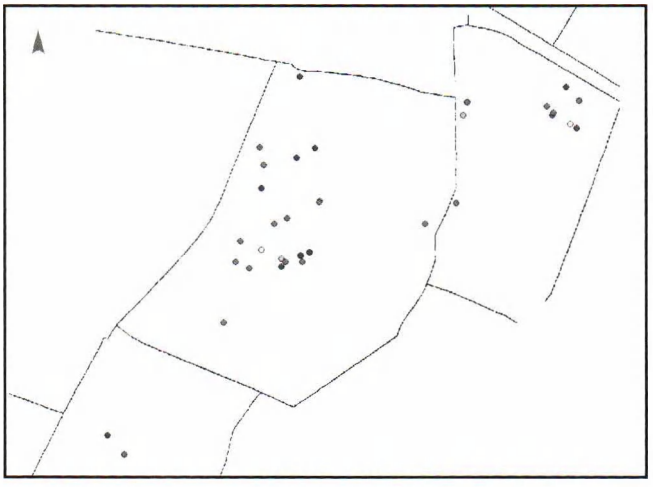

Fig.1 3rd century, Reece periods 10-14. This map shows the distribution of the coins dating from the 3rd century. Although there are few finds from this period it is clear that most of the activity is taking place in the central field.

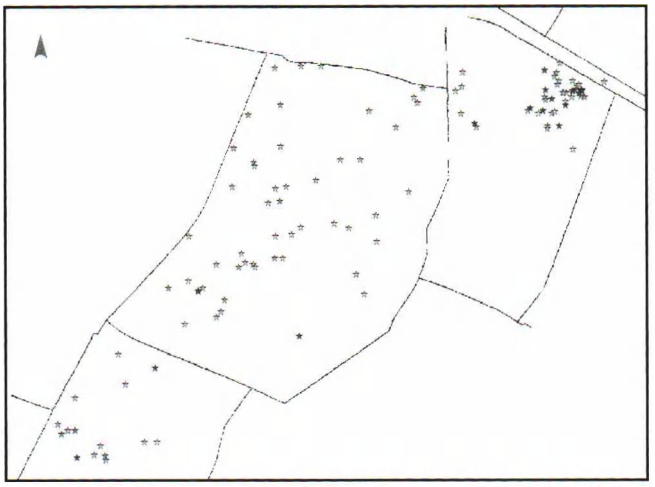

Fig.2 First half of the 4th century, Reece 15-18. Although there is still activity in the central field, this map shows that the findspots are extremely scattered. However, we now see a concentration of coins in the top right corner of the adjacent field.

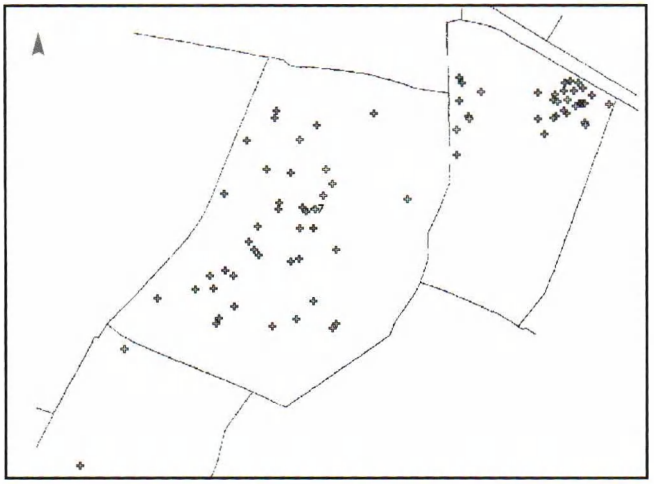

Fig.3 Second half of the 4th century, Reece 19-21. This map shows a continuation of the early 4th century pattern.

However, in a specialist's hands, a wealth of information can be gained from a coin that was thought to be illegible. Sam Moorhead (PAS Roman coins advisor) looked at Peter's assemblage and has been able to identify all the coins, ascribing them to a particular Reece period (Reece Periodisation 2006). This system has allowed us to break down the 400 years of Roman rule into 21 specific periods. From this data we found that the site was in use for just over

200 years. Furthermore, as Peter recorded all of the finds to a ten figure grid reference using a GPS this has allowed us to accurately plot the distribution of the coins and illustrate how the site developed over the 200 years of occupation.

The dispersed pattern of coins in the central field throughout the 200 years of activity most likely represents casual losses, perhaps the site of a market. However, the concentration of coins in the neighbouring field to the east shares similarities with a number of excavated Roman temples, for example, Nettleton in Wiltshire (Wedlake 1982). Similar distributions have also been recorded in Wiltshire at Calstone (Moorhead 2001, 88 & 99, no. 18) and Urchfont (*ibid* 88 & 99, no. 21), again these are believed to point to the location of probable Roman temples. As a result, this has led some to suggest that this could represent the location of a 4th-century Roman temple. To investigate this possibility further a series of geophysical surveys are planned in 2010.

Finder: Peter Twinn

Findspot: South Gloucestershire

IRON AGE

Wrought iron socketed Iron Age axe head. Database number GLO-D2F478

Length 98mm, width 37mm, thickness 25mm, weight 121g.

The mouth of the socket is sub-rectangular (15mm wide, 25mm high) and narrows towards the top. The body gradually narrows towards the blade. A hole has been punched thorough the side 18mm from the mouth of the socket in order to form a loop. This loop has rolled edges where it had been forced open while the metal was still hot. The blade is slightly curved, it is 33mm wide, 1mm thick and has a small section missing from the bottom, but otherwise is complete.

Such axe heads are characteristic of the Halstatt culture of the early Iron Age of central Europe. They are rarely found in the British Isles, with examples from the Berwyn Mountains of Wales (Savory 1976, 20) and Cold Kitchen Hill, Wiltshire (Cunliffe 1974, fig.14:2.5).

Finder: W Curry

Findspot: Tortworth, South Gloucestershire

Fig.4 Iron Age axe head.

ROMAN

An incomplete cast copper alloy Roman cart fitting terminal in the form of an eagle's head, dating from AD 43-125. Datbase number GLO-784136

Fig.5 Roman cart fitting.

Length 20mm, width 22.5mm, thickness of metal 2mm, weight 14.83g.

The eagle's head is hollow and has been broken immediately below the bird's beak. At the top of the head a protruding platform/crest extends outwards and overhangs the incised eyes. The crest is delicately decorated with incised feathers of different sizes which continue from the top of the head and down the back of the neck in an overlapping design. The eyes, which appear underneath the platform/crest and either side of a sharp ridge, have been moulded and incised to create prominent eye lids and a slightly recessed circular cavity for the pupil. The open beak extends outwards from the centre of the head below the ridge at a curved slant. A small sphere is held in the beak.

It is likely that this eagle-headed cart fitting had a long neck and was fixed to the cart using an iron attachment. A close parallel is a terminal with an iron/lead core from Chichester illustrated in Down (1978, 296, 297; no. 47). As its description states, such objects tend to be identified as Roman cart fittings to which the reins were tied when the vehicle was stationary. These fittings seem to have a relatively standardised design, characterised by the sphere within the eagle's beak. The distribution and date of similar pieces suggests a military connection and a 1st-century date (Webster 1958, 75) although as more examples come to light such a generalisation may come to be refined. A similar eagle-headed fitting from Ixworth was illustrated by Keele and Roach Smith (1857), which Webster includes with a group of objects interpreted as military cart fittings of 1st century date (*op. cit.* 49-98). Two examples have also been found at Circencester (Wacher & McWhirr 1982, nos 105-6). The 105 example has a hook protruding from the base of the eagle-headed mount, which is in the form of a swan's head. These examples often display a considerable amount

of wear suggesting the reins or a strap passed through. Wacher & McWhirr suggest that they are of a predominantly first to early second century date. Other examples have also been recorded on the Portable Antiquities Scheme database: SF-97C2C8 (from Gedgrave, Suffolk) and HAMP-E88954 (from West Ilsley, Berkshire). Another eagle-headed cart fitting of a type commonly regarded as military has been recently excavated during an excavation of a substantial Roman roadside settlement at Higham Ferrers, Kings Meadow Lane (Oxford Archaeology, forthcoming). Additionally, a very similar eagle-headed mount is also discussed and illustrated at the following website http://transportarchaeology.word.press.com/category/roman-wagons. It is also stated that bronze fittings like the eagle-headed mount have been found across the Roman provinces and are often given the German name 'Gurthalter'. The mounts exist in many forms with varying decoration including bronze statuettes, with one or two 'arms' extending out from the cart.
Finder: Peter Twinn
Findspot: South Gloucestershire

Brooch Moulds, Database number: GLO-9090B6
Seventy-eight fragments of Roman brooch moulds.

Fig.6 Brooch moulds.

There are a number of different brooch styles represented by the assemblage such as Dolphin, T-shaped with a hinged mechanism, and Hod Hill (Bayley & Butcher 2004). No examples are complete. About half of the group consists of fragments from the head or wings of the brooch, the rest are from the leg. The lack of evidence for the lower part of the brooch is noticeable by the absence of any fragments that would contain the foot or catchplate. The moulds are made from earthenware that has a sand temper. The outside edges have a buff-orange surface, the insides are grey. These artefacts date between the mid 1st and the early 2nd century AD.
Finder: John Paget
Findspot: Compton Dando

Coin of Domitian, Database number GLO-D41142
Silver Denarius of Domitian
Date: AD95-96
Diameter: 18mm, thickness 2.1mm, weight 3.24g
Obverse: laureate bust right
Obverse inscription: IMP CAES DOMIT AVG GERM P M TR P XV
Reverse: Hexastyle Temple
Reverse inscription: IMP XXII COS XVII CENS P P P
Condition: Fair
Die axes: 12 o'clock

Fig.7 Silver denarius of Domitian.

The obverse type is standard for issues of the year 14 September 95 to 13 September 96 (Sutherland & Carson 1926, 323, nos. 784-93). The reverse inscription is also standard for the year of issue, but this reverse type is not included amongst those recorded with the legend.

There is an anepigraphic type with a reverse of the Temple of Jupiter Capitolinus struck in the same year, with the obverse legend DOMITIANVS AVG GERM (*ibid.* no. 815), one of a series of coins depicting temples (*ibid.* no.812-6). This new coin has a similar design to *ibid.* no. 815, but apparently without the cult-statue and flanking figures visible on the latter, and it is not clear if the architrave has an inscription.

In conclusion, this appears to be a perfectly plausible new type which links the two issues of denarii for AD 95-6 (*ibid.* nos. 784-93 and 812-6). The inscriptions are taken from the first group (*ibid.*784-93) and the reverse design is thematically connected to the second group (*ibid.* nos. 812-6).
Finder: Nick Keeler
Findspot: Tytherington, South Gloucestershire

EARLY MEDIEVAL

Stirrup Strap Mount, Database number GLO-D6A9D4
Cast copper alloy stirrup strap mount, length 47mm, width 36mm, weight 39.53g.

It has openwork zoomorphic decoration consisting of two rearing animals with open mouths on either side, these flank two animal facemasks in the centre, which are located

Fig.8 Stirrup strap mount.

REVIEW OF ARCHAEOLOGY 2008

Edited by Bruce Williams

Abbreviations

AAU	-	Avon Archaeological Unit
BaRAS	-	Bristol & Region Archaeological Services
BRSMG	-	Bristol City Museum and Art Gallery
BHER	-	Bristol Historic Environment Record
BUAD	-	Bristol Urban Archaeological Database
CA	-	Cotswold Archaeology
COAS	-	Context One Archeaological Services Ltd.
MOLA	-	Museum of London Archaeology
NSMS	-	North Somerset Museums Service
SGHER	-	South Gloucestershire Historic Environment Record

The review of archaeology is arranged alphabetically by parish and covers the four unitary authorities of Bath and North-East Somerset, Bristol, North Somerset and South Gloucestershire, formerly Avon County.

This may not be an exhaustive list however, as not all contractors, whether professional or amateur, inform the editor of their work.

Online Access to the Index of Archaeological Investigations (OASIS) references are included, where available. These provide an online index to information about a variety of archaeological investigations and facilitate access to, and dissemination of, 'grey literature' that is being produced in the course of fieldwork.

BATH & NORTH-EAST SOMERSET

BATH

Abbey Green, Bath, ST 75130 64655. A watching brief was conducted at Abbey Green, Bath during repairs to a sewer. The work uncovered the northern side of a backfilled post-medieval or modern vaulted cellar. This probably originally formed part of the existing cellar of No. 4 Abbey Green, a Georgian Grade II listed building. Finds observed in the fill of this feature suggest that this part of the cellar was probably blocked off and backfilled in the late 19th century.

Cheryl Allum, COAS

Bailbrook House and Grounds, London Road West, Batheaston, ST 768 670. A desk-based assessment was undertaken of the late 18th century Bailbrook House, Grade II* listed, and some 12 hectares of attached land. The study area indicates significant human activity in the general environs of the site during the later prehistoric period, foremost evidence for which is provided by Little Solsbury Camp, but also by other Bronze Age finds including a nearby inhumation burial. Finds of two hand axe tools on the flank of Little Solsbury Hill suggests that humans may have been active in the area very much earlier still, during the Pleistocene (Ice Age) period and raise the possibility that Pleistocene river terrace deposits containing artefacts are preserved locally.

Evidence for Roman activity in the area is represented by stray finds of coins from Little Solsbury Hill, a complete Roman sarcophagus found in the garden during this survey and a decorated gravestone, all near and adjacent to the Fosse Way, the modern London Road West.

The locations of the 19th century asylum building and a possible stable block show up on aerial photographs.

David Etheridge, Jo Janik & Andrew Young, AAU

Gainsborough Building, Beau Street, ST 7496 6460. Excavation occurred on the site of Roman hot baths partially recorded by J.T. Irving between 1864-6. To judge from his plan there were at least two successive buildings, the earlier of unknown function, the later clearly a baths utilising water from the nearby Hot Bath spring (see B. Cunliffe, Roman Bath (Rep. Res. Comm. Soc. Antiq. London. 24, Oxford, 1969), 151-4).

A series of large, flat, stone blocks was exposed immediately to the east of an apsidal bath recorded by Irving. They appeared to form three steps leading down but from their finish and size seem fairly clearly to be the result of the robbing of very large blocks from a massive masonry structure not unlike the large solid ashlar buttresses in the Temple Precinct of Sulis Minerva. Overlying the "steps" was clay levelling into which was cut a stone culvert and two walls. The culvert ran north-west to south-east and utilised the lowest course of the "steps" as its base. The walls of the culvert did not display any staining which would be expected if it had transported hot spa water. It may have supplied or drained cold water from the apsidal bath. The culvert was cut through by an east-west wall which can probably be correlated with one recorded by Irving. A fragment of floor surface survived to the south of this wall. A wall parallel to, but immediately south of the former, cut though this floor level and so is presumably a replacement.

Two north-south walls, 3m apart, defined a probable corridor. Immediately to the east of this room was a large room, with a smaller room added to the west.

A succession of floors was found within the large room. Through the top of the latest of these floors was a stone-lined, rectangular pit which contained a coin hoard. The hoard was lifted as a block and probably contains in the order of 1,500 coins. It will be excavated and conserved in Bath Museum. Preliminary examination of about 260 coins which became detached from the block suggests that the hoard was closed in the A.D. 260s. The large room was sub-divided at some date by the insertion of at least two partition walls, while a north-south wall associated with a stone flagged floor is even later still.

A thick deposit of demolition debris overlay the clay levelling in a second area. Cut into this was a north-east to south-west aligned stone culvert, which, in turn, was truncated by a later wall. Another culvert ran alongside this wall, the red mineral staining indicating that it transported hot spa water.

Overlying most areas was a demolition deposit of brick/tile, stone rubble and clay overlain by 12 to 15th-century garden soils. A stone wall running NE-SW and a possible surface suggest the presence of a medieval building. Medieval pits, in some cases dug to extract Roman walling stone and used for rubbish disposal thereafter, were also found. Stone culverts and a wall were associated with properties that fronted onto Lower Borough Walls; these may date to the post-medieval period. Further pits were dug to rob Roman stonework, most likely associated with the construction of buildings in the 1860s. Other walls relating to 19th-century buildings were found (2).

Neil Wright & Mark Collard, CA

Holcombe Green, Weston, ST 7285 6675. A desk-based assessment was undertaken at a site in Weston which is conjectured to lie on the route of a Roman road. The settlement was a Saxon Manor documented from the 7th century. During the medieval period it was part of the Bath Abbey estate. The evidence examined suggests that the assessment area comprised agricultural land during the medieval and post-medieval periods. Prior to construction of Holcombe Green in the late 1940s, the site belonged to a branch of the Leir family. Features dating from the Romano-British and medieval periods have been located in the vicinity of Holcombe Green.

Andy King, BaRAS

Nos. 2, 3 and 4 Long Acre, London Road, Walcot, ST 753 658. A desk-based assessment was carried out for 2, 3 and 4 Long Acre. Long Acre is located on London Road which follows the path of the Fosseway, beside which was located the cemetery of the Roman city of Aquae Sulis. The evidence examined suggested that the current settlement in which the study area is located developed in the post-medieval period, extending out from the city centre along the London Road. The existing listed buildings on the site were built in the early 19th century and are first identifiable on the 1841 tithe map. Various extensions have been built on to the back of the main block and subsequently demolished throughout the 19th and 20th centuries. Archaeological deposits relating to the Roman and post-medieval periods are likely to be present on the site.

Simon Roper, BaRAS

SouthGate, ST 75105 64475, OASIS ID: 54338. The SouthGate redevelopment site covers an approximate area of 35,500m^2, lying immediately south of the City Wall and north of the River Avon. It is bounded by Southgate Street to the west, Manvers Street to the east, New Orchard Street/Henry Street to the North and Dorchester Street to the south. Parts of the site were evaluated by Bath Archaeological Trust in 1997 and the remainder by MoLAS from December 2006 to March 2007. A phased program of controlled excavation and watching brief began in June 2007.

Geoarchaeological borehole investigations and trenching have focused on understanding the sequence of Late Devensian/Late Glacial river terrace deposits on the site, and modeling the early Holocene land surface. The terrace gravels were cut by a later channel, whose bedded sand and silt fills produced preliminary Optically Stimulated Luminescence (OSL) dates of *c*17,000 BP (base) and 14,000 BP (top), +/- 1,000 BP, indicating that these deposits date to the Late Devensian/Early Holocene interface. To date no Palaeolithic artefacts have been identified on the site. It is hoped to date the terrace gravels during work planned for 2008 and as work progresses, the project is expected to make a significant contribution to knowledge of the development of the Avon river system and the local Late Glacial/Early Holocene environment.

In the southwest of the site, the channel deposits were overlain by a soil horizon containing flint-working debris of probable Mesolithic date (principally evidence of small blade and bladelet production). The flint scatter examined in 2007 was diffuse and disturbed, as the soil horizon had remained exposed until sealed by overbank flooding from the Roman period onwards. It is thought that further, better-preserved flint scatters exist in the area to be investigated in 2008, particularly towards the southeast corner of the site, where they have been previously reported by Bath Archaeological Trust. Evidence of later prehistoric activity currently consists of a single gully, which produced sherds of Iron Age pottery.

There is no evidence for significant Romano-British activity on the site, a Roman predecessor of the medieval South Gate, or for any of the postulated southern roads out of the town. The site was low lying and prone to flooding and may have been suitable for little other than grazing, but the lack of any visible form of suburban activity has implications for the nature of the town and its civic/religious nucleus. Only small quantities of residual Roman pottery and building material occur in later features.

A large ditch some 10m south of and parallel with the

known line of the medieval and presumably Roman town wall may represent a Roman defence cleared in the Late Saxon period, or a newly dug feature, part of Alfred's refortification of Bath. A peat layer in the primary filling of this ditch produced a 14C date of 770-970 cal AD.

The Southgate suburb was developed after the Norman Conquest. Extensive reclamation dumps raised ground levels above the contemporary floodplain in advance of construction. A sequence of limestone cobble road surfaces was recorded along a *c*70m long section of Southgate Street. Localised gravel quarrying took place to provide additional raw materials. Several ditches and pit alignments indicate setting out of burgage plots running east from the street to a north-south aligned stream, which formed the rear boundary of the Southgate properties. Contemporary with the earliest road surface was the stone setting for a lead pipe which brought water from the south side of the river across the medieval bridge to a fountain or conduit house beside St James church, just inside the South Gate.

Parts of several stone-built houses fronted onto the east side of the road. The backlands of these houses contain a range of cesspits, wells and ditches, but little in the way of refuse pits. The stream was revetted in stone and wattle and was presumably used for the disposal of most household waste. Its western edge was progressively reclaimed, with evidence that it became increasingly slow flowing and foul – known from documentary records as the 'Bum Ditch'. Part of a masonry structure close to the northern site boundary is thought to have been part of the headrace or wheel pit of the documented Isabelle mill.

Further work on the finds assemblage is needed to resolve the dating of the medieval phases. While it is possible that the development of the Southgate suburb will prove to be directly related to the Norman development of the cathedral in the south-eastern part of the walled area, initial indications suggest a slightly later date, perhaps in the later 12th or 13th century.

Post-medieval developments include: the progressive narrowing and culverting of the 'Bum Ditch'; a 17th-century watermill which probably powered a fulling operation; evidence for iron-working, as well as clay tobacco pipe and pin manufacture, and several phases of 18th- and 19th-century domestic, industrial and commercial buildings.

Processing of finds and environmental samples will continue through 2008, while further evaluation and excavation will focus on the flint scatters in the eastern part of the site.

In January 2008 work began on the eastern side of the site, where less complex archaeology was anticipated, but where all surviving deposits were to be removed in advance of planned construction of an underground car park. Large-scale geoarchaeological trenching across the area was designed to elucidate the development of this part of the Avon river system and the local Late Glacial/Early Holocene environment. Further Optically Stimulated Luminescence (OSL) samples were obtained, which should provide dating for the terrace gravels as post-excavation assessment and analysis proceeds. The course of a later river channel (provisionally dated to the Late Devensian/Early Holocene interface) was traced across the site and selectively recorded and sampled for palaeoenvironmental evidence.

In the southeast of the site, the channel deposits were overlain by soils containing flint-working debris of Mesolithic date. Although far more concentrated and apparently less disturbed than the scatter examined in 2007, there was some evidence that parts of the sequence may have been subject to episodes of fluvial erosion and deposition as well as intrusions, not always clearly recognizable in the field, from Late Saxon and medieval activity on the floodplain. Current interpretation suggests the use of the floodplain area for raw material collection and blank preparation (small blades and bladelets, cores and waste flakes, with very low numbers of tools and microliths). No hearths or structures were positively identified during the excavation, although small quantities of burnt flint and hazelnut shells were recovered.

Assessment of the flint assemblage (many thousands of items) is ongoing, initially focusing on understanding the context of deposition, the chronological, spatial and stratigraphic distribution of the assemblage, and the extent to which post-depositional processes have impacted the recovered patterns in this low-lying setting.

There remains no evidence for significant later prehistoric or Romano-British activity on the site. A number of gravel quarries produced only abraded Roman brick and pottery (and one Neolithic polished axe), but these are thought to be part of a major phase of Late Saxon-/early medieval-gravel extraction which extended over most of the remainder of the site. Confirmation of when quarrying began must await radiocarbon dating. In the south-east of the site, outside the quarried area, a small group of features – a refuse pit, a corn-drying kiln, an iron smithing hearth, several ditches and groups of post-holes may represent seasonal activity on the flood plain, or the remains of an encampment connected with the operation of the quarry itself. Later medieval activity was limited to occasional sherds of pottery in the upper backfills of the quarries and a single boundary ditch.

Later features recorded in 2008 included a very regular ditch, forming a trapezoidal enclosure on the east side of the 'Bum Ditch', dating to the mid 17th century, interpreted as marking the position of a Civil War defensive feature or gun battery. A thin spread of charcoal and fragments of mid 17th-century clay pipe and pottery was traced across the eastern part of the site - possibly debris from a Civil War encampment.

The reclamation and development of this low-lying area consisted of two main episodes - one dating to the first half of the 18th century, the other to the mid 19th century, associated with the development of Manvers Street and the railway. Most of the 19th-century domestic and commercial buildings survived into the 20th century. Several properties

was not until the 1950s that the structure was complete and ready for occupation. There are proposals to open up this part of the building into offices more suitable for 21st century requirements while at the same time retaining its original character.

John Bryant, BaRAS

Prince William House, Nos. 30-34 Colston Street, ST 58594 73115, BHER 24656, OASIS ID: bristola1-49748. An archaeogical building assessment at the Grade II Listed Prince William House revealed that it was founded in 1897-8, was gutted by a fire in 1913 and rebuilt by 1915. The building escaped damage in the blitz and was extensively refurbished in the early 1980s. The Colston Street façade and sub-basement level contain visible elements of the original building, the restored roof structure has features dating from the 1915 re-build.

Andy King, BaRAS

Queen Elizabeth's Hospital School, Jacobs Wells Road, ST 57768 72969, BHER 4470. A desk-based assessment for land at Queen Elizabeth's Hospital School, showed that the study area occupies land thought to have been used by Bristol's Jewish community in medieval times, known in the 19th century as the 'Jew's Acre', and also agricultural land formerly in the possession of the Dean and Chapter of Bristol. The present school was constructed in 1844-47. To the south of the main school, the remains of terraced gardens survive that date from the early 1880s.

Andy King, BaRAS

ST. GEORGE

Gable Crest, Stibbs Hill, St George, ST 63412 73370, BHER 24600. A desk-based assessment was carried out for a detached house known as Gable Crest. The site lay within the historic area of Kingswood Chase and from at least the late 18th-century was enclosed agricultural land, which may once have belonged to the estate of Dundridge Farm. In the second half of the 19th century some quarrying took place and three small buildings were erected in the north-western corner of the site. The quarry was filled in and the buildings cleared by 1904. In 1938-9 the present property of Gable Crest was constructed with a substantial private air raid shelter added soon after.

Andy King, BaRAS

Rock House, Bethel Road, St George, ST 62775 73626, BHER 24594. A desk-based assessment of this property prior to its demolition and replacement with a new development of residential flats revealed that Rock House was built in the second half of the 19th century, probably shortly before 1881. Originally L-shaped in plan, it fronted onto a large garden to the east, and appears to have been associated with a variety of outbuildings of unknown function. It is possible that in origin it was a farmhouse. However, the building also has very strong historical associations with a leading family of Bristol industrialists of the day, the Brittons, founders of the major boot and shoe manufactory, which bore their name. Isaac Britton, the first member of this industrial dynasty of any note, may not only have built Rock House, but may also have used its outbuildings as his first, small-scale industrial premises.

Nick Corcos, BaRAS

Rock House, Bethel Road, St George, ST 62775 73626, BHER 24699, OASIS ID: bristola1-52839. A mid-late 19th-century house was recorded prior to demolition. This two-storey single-pile plan, double width house with a small rear wing was originally L-shaped, but the north-west angle was later infilled. The principal elevation faced eastwards and was built of squared, coursed Pennant sandstone with limestone dressings, exhibiting architectural details that were not untypical of this area at that date. Internally the building had been stripped of its original fixtures and fittings, except for the southern ground floor room.

John Bryant, BaRAS

Colliery Chimney, Troopers Hill Road, ST 62881 72849, BHER 24634, OASIS ID: bristola1-48210. A desk-based assessment was carried out for the remains of a former colliery engine house at the bottom of Troopers Hill Road close to the junction with Crews Hole Road. The remains comprise a square chimney of two stages and parts of two walls, built from copper-slag blocks and Pennant sandstone. This area has been industrialised since at least the beginning of the 18th century. Coal mining was already taking place in the neighbourhood by 1754, but this mine probably only began in the very early 19th century. Known as Crews Hole Pit or Troopers Hill Pit, it was served by two engine houses, one here and another 200m to the north-east on the opposite side of Troopers Hill Road. Two coal seams were worked, the Millgrit and the Rag. The tithe map showed a gin house next to the engine house. Coal production had ceased by 1845. By the early 20th century the engine house was roofless, and an aerial photograph of *c*1930 showed the building in ruins. The 1948 Ordnance Survey plan recorded only the chimney and portions of two walls, which is much as survives today.

John Bryant, BaRAS

ST JAMES

Nos. 16-18 Cherry Lane, ST 59003 73674, BHER 4459. A desk-based assessment was undertaken for Nos. 16-18 (formerly 14-16) Cherry Lane in central Bristol. The area was originally part of the estate of the Priory of St. James. It appears to have been fields or possibly gardens until developed for housing in the 18th century. Two three-storey houses fronting Cherry Lane were erected in the early-mid 18th century, immediately west of what became The Trout Tavern. One of the houses was damaged in the Blitz and reduced to a single storey, but the other remains, although altered. Original panelling survived in the front first floor room of No.18.

John Bryant, BaRAS

ST MICHAEL

Land at St Michael's Hill & Tyndall Avenue, ST 58339 73493, BHER 4422. In November 2007 four evaluation trenches were excavated on Bristol University land at Tyndall Avenue, the site of the Civil War citadel known as the Royal Fort. The substantial footings of an 18th-century garden wall associated with Thomas Tyndall's Mansion and a rock-cut feature were exposed in one trench. In December two additional trenches were excavated revealing a stony-clay deposit, currently believed to be levelled rampart material, as well as the footings of an 18th-century greenhouse, 19th-century structures and deposits of imported garden soils. In January 2008 two trenches were excavated inside a former nurses accommodation block that exposed the outer lip of a large cut feature and fill deposits extending over 2.7m below ground level. The nature of the fill and dating evidence indicate that the feature is part of a ditch associated with the Royal Fort.

Andy King, BaRAS

Nurses' Home, Tyndall Avenue, Tyndall's Park, ST 58316 73483, BHER 4471. A pre-demolition survey of the 1930s former Nurses' Home off Tyndall Avenue was undertaken. The study area is situated within the designated conservation areas of Tyndall's Park and St Michael's Hill/Christmas Steps, approximately 600m to the north-west of the City Centre. The survey revealed the building to have undergone relatively few alterations, the majority of which had taken place internally and were relatively minor in extent. At the time of the survey the building was mainly in use as offices.

Simon Roper, BaRAS

Ivy Gate, University of Bristol Precinct, Tyndall Park, ST 583117 734452. A cartographic assessment was undertaken. The earliest map examined on which the gateway was unarguably depicted was the First Edition (1:500) OS sheet, surveyed in 1883. The gateway did not appear to be present on John Rocque's 1742 map, or James Stewart's 1752 sketch of the area. It was suggested that the gateway may have been constructed when Thomas Tyndall created Tyndall's Park in the 1760s, although a later construction-date was not precluded. An on-site examination of the brickwork by John Bryant of BaRAS suggested that the feature may have been constructed as late as the early 19th century. Ivy Gate was designated Grade II listed status in August 2008.

Andrew Townsend, BaRAS

Mathematics Building, University of Bristol, Tankard's Close, ST 583 733, BUAD 4460. A watching brief during groundworks associated with the construction of a glassblowing centre revealed Pennant sandstone walls and a rectangular water storage tank probably dating to the 19th century. The structures probably relate to the terraced houses that existed in Tankard's Close in the 19th and early 20th centuries.

Stuart Whatley, BaRAS

Land adjacent to the H.H. Wills Physics Laboratory, Tyndall Avenue, ST 58242 73499, BHER 4462. A desk-based assessment was undertaken. The study area was considered to incorporate part of the site an English Civil War (1642-1653) defence commonly known as the Royal Fort (formerly the Windmill Hill Fort). From the 17th century, the area of the fort was developed as a high-status residential enclave incorporating a number of fine town-houses. In the mid-18th century, Thomas Tyndall redeveloped the area as parkland (Tyndall's Park). As part of this, a building known as the 'Great House' was demolished and replaced by the present Royal Fort House, *c*1760 (Grade I listed). Substantial garden-landscaping was undertaken over large areas. Tyndall Avenue was constructed in the early 20th century (adopted 1906) and heralded a number of changes to the area including the construction of new houses (on Tyndall Avenue and St Michael's Hill) and eventually the H.H. Wills Physics Laboratory (1920s). The H.H. Wills Physics Laboratory (Grade II listed) was subsequently extended in the 1960s and, at the time of the study, being extended further on its east side (Nanoscience & Quantum Information Building). The 20th-century redevelopment of the area resulted in a number of post-medieval buildings (and possibly earlier buildings) undergoing demolition. A number of the early-20th-century houses on the southern side of Tyndall Avenue were also demolished when the H.H. Wills Physics Laboratory was extended in the 1960s. The evidence examined suggested that there was part of a substantial building on the study area from the late 18th century which survived until the 20th century. A smaller building, probably a greenhouse, was also present on the study area during the 19th century.

Andrew Townsend, BaRAS

ST PAUL

Land at Backfields, ST 5922 7383. A watching brief was undertaken during construction works associated with the redevelopment of land at Backfields. A programme of archaeological works comprising desk-based assessment, evaluation; geophysical survey and watching brief during geotechnical works were undertaken. These works established that the remains of the Circular Stables, home of the first riding school in Bristol constructed in 1761, were located within the western part of the site. The construction works associated with the redevelopment of the site were designed to minimise the impact on the buried archaeological remains, however a watching brief was undertaken during intrusive groundworks.

Stone wall footings and drains comprising the remains of the 18th-century circular stable block were identified and have been correlated with the cartographic evidence. The identified remains primarily comprised the external wall of the Circular Stables, individual stables within the structure and an internal corridor. The remains of associated structures were also identified. Brick-built structures, probably relating 19th-century housing, modern concrete foundations and services were also encountered.

Sian Reynish, CA

Broadmead Development, Cabot Circus, Buildings 12a and 12b, ST 5963 7358. An archaeological evaluation was undertaken in January 2008. One trench was excavated. The evaluation revealed evidence for the dumping of substantial deposits in the 19th-century. These deposits help to illustrate the well-documented rapid expansion of Bristol in the 18th and 19th centuries, as the city reclaimed land to provide additional space for the rapidly growing population and industry. These reclamation deposits were sealed by demolition debris dated to the 1950s. This relates to post-war redevelopment of the area when work was undertaken to remove slums and clear the damage caused by bombs.

Jonathan Webster, CA

Nos. 117-133 Wilder Street, ST 59418 759418, BHER 4446. The poorly-constructed Pennant sandstone walls of a terrace of ten properties, first shown on Plumley and Ashmead's plan of 1828, were recorded on the north side of Wilder Street. No internal features survived owing to past ground reduction.

Kevin Potter, BaRAS

St. Paul's Park, ST 5955 7376. A watching brief and recording was undertaken at St Paul's Park, immediately adjacent to St Paul's Church prior to landscaping and the construction of new play equipment. The study area was formerly part of St. Paul's churchyard, consecrated 1794, but was given to the city for recreational use in 1935. The Lower Terrace had never been used for burials. The southern two thirds of the site, the Upper Terrace, revealed twenty eight human interments, all of which were marked by ledger slabs between 100mm and 600mm below the modern ground surface.Widespread deposits of mixed imported material was used to bury the ledger slabs and create a new level surface for the park which was formally opened on the 10th June 1936.

Raymond Ducker, AAU

ST PETER

Broadmead Development, Plots 15 and 16, ST 5955 7340. A watching brief was undertaken during groundworks associated with the construction of a Future Inns Hotel. The roof of the River Frome culvert and one supporting buttress were encountered between 0.54m and 2m below present ground level. The culvert is on a north-east/south-west alignment, with a revetment wall for the earlier open river channel running parallel approximately 1m to the north.

Kathy Aston, CA

Wine Street, ST 5903 7315. An evaluation was undertaken in May 2008. One trench was excavated. The evaluation uncovered a sequence of re-deposited soil and clay layers. These layers were excavated up to 3.86m below current ground level from where a single sherd of pottery dating from the 12th century was recovered. The full depth of the sequence of soil and clay layers was not established. They were sealed below a substantial deposit of modern rubble. This rubble pre-dated a brick wall that once formed the southern edge of a property fronting onto Fairfax Street to the north of the site.

Neil Adam, CA

ST PHILIP & JACOB

No. 114 Jacob Street, ST 5972 7311. A watching brief was undertaken during groundworks associated with the excavation of foundation trenches and test pits to determine pile locations. The excavation of foundation trenches demonstrate that the natural substrate lies close to the current ground level at the northern limits of the site. Test pits, excavated to determine pile locations, indicate that post-medieval cultivation soils and mixed demolition/ levelling deposits are present across the remainder of the site and that the natural substrate may have been truncated by this later activity. The presence of a well and cellar indicated that some post-medieval activity beyond agricultural use may survive within the site, as well as former phases of the existing building represented by a wall and former floor surface, possibly belonging to the malthouse/brewery that stood on the site in the 18th/19th century.

Steve Sheldon, CA

ST PHILIP & JACOB WITHOUT

Avonvale Road, Barton Hill, ST 60940 72935, BHER 24557. A watching brief was carried out during groundworks associated with the construction of a terrace of 7 three-storey residential units on the south side of Avonvale Road.

No features or deposits of archaeological significance were observed, other than parts of two 19th-century laid surfaces (brick, tile and Pennant sandstone) associated with the terraced houses on Great Western Street (now Avonvale Road) that occupied the site between the 1830s and the 1950s.

Tim Longman, BaRAS

Site of former Temple Way House off Narrow Plain, ST 594 729. A trial excavation, involving two trenches, exposed archaeological deposits and structures of late 17th to 20th century date relating to the reclamation and increasing industrialisation of the study area. Overall the character of activity represented appears consistent with documentary evidence. Dating evidence for the industrial structures was limited although their fabric suggested that they related to 18th-19th century industrial buildings, some possibly to an iron foundry shown on Ashmead's plan of 1855. Natural alluvium was reached at *c*6m aOD.

AAU

Site of former Temple Way House off Narrow Plain, ST 594 729. A watching brief was undertaken on land previously evaluated. The groundwork consisted primarily of the excavation of a reduced level platform across the site, a depth of approximately 1m, to a level of *c*7.75m above OD. No significant buried archaeological deposits or structures

of pre-19th century origin were damaged during the course of the groundworks.

Raymond Ducker & Richard Payne, AAU

New Street Flats, New Street, St Jude's, ST 59616 73381, BHER 24673, OASIS ID: bristola1-51705. An historic building assessment was carried out for this important building in the centre of Bristol. Three of the four ranges occupied until recently as council flats were shown to be the body of the workhouse built in 1698-1700 by the Society of Friends (Quakers). Weaving was carried out here until 1721, after which the building continued to serve as residential accommodation. A mission and school were established here in the 1860s but the buildings were converted into flats in or about 1929. The basic structure survives but was heavily rebuilt in the 1860s and *c*1929, with further refurbishment since World War Two. Few original internal features survive and the roof has been raised. However, this is an early survival of an urban purpose-built workhouse and thought to be the oldest-surviving Quaker workhouse.

John Bryant, BaRAS

St Nicholas House, Lawfords Gate and Tolentino House, Pennywell Road, ST 59936 73507 BHER 4453. Recording of two structures in the grounds of St Nicholas of Tolentino Roman Catholic parish church was undertaken prior to the demolition of both buildings in connection with redevelopment of the site for housing. St Nicholas of Tolentino had been erected adjacent in the 1840s as a Roman Catholic parish church, and by 1854 a parish school had been established on this site. In Pennywell Road was a single-classroom block of 1879-80 to the design of T. C. Hodges, built of coursed Pennant rubble with a pitched roof, later extended. At the junction of the two streets was a three-storey brick block to the designs of Scoles and Raymond, the noted Catholic architects. Erected in 1910, there were three main floors, each to the same basic plan, with basement boiler rooms. As was then often the practice, the playground was divided between boys (west) and girls and infants (east).

John Bryant, BaRAS

Land at Nos. 34-40 Queen Ann Road, Barton Hill, ST 60740 72719, BHER 24672, OASIS ID: bristola1-51603. A desk-based assessment of land at Queen Ann Road showed that the site was pasture in the medieval period and under cultivation until the early 19th century. Development of the study area was fairly rapid following the establishment of the Barton Hill Pottery in the later 1850s and although parts of the site remained as open yard space, it was mostly utilised by workshop and factory premises until its clearance in the 1990s.

Andy King, BaRAS

Vestry Hall, Eugene Street, ST 5994 7359. A standing building survey of the Vestry Hall prior to redevelopment into residential flats and partial demolition of the study area was undertaken. The buildings comprised a central late 19th-century two storey structure known to have been built originally as a meeting hall and later converted into a cinema in the early 20th century, together with a contemporary frontage structure on Pennywell Road interpreted as a foyer. The original ceiling of the Hall was characterised by a geometric design in high relief, executed in sawn timber on a lath and plaster base.

David Etheridge, AAU

ST STEPHEN

Merchants Almshouses, King Street, ST 5870 7270. Two evaluation trenches were excavated in December 2008. The evaluation established the presence of wall foundations associated with the former west wing of the Merchants Almshouses, constructed in the late 17th century. These foundations were themselves established upon what appeared to be the foundations of an earlier building. The former Marsh Wall was not exposed, although a combination of auger survey and observations of subsidence affecting neighbouring standing buildings suggests the route predicted in an earlier desk-based assessment is reasonably accurate. Significant amounts of redeposited soil and rubble, dating from the mid 17th to mid 18th centuries, found in both trenches probably reflects activity associated with the construction of the Almshouses in the late 17th century.

Neil Adam, CA

ST THOMAS

Number One Victoria Street/143 Redcliff Street, ST 59019 72848, BHER 24671. A desk-based assessment was undertaken. Documentary sources, and archaeological evidence previously obtained in the general vicinity, suggested that the study area comprised land having good archaeological potential, notably in relation to the medieval and post-medieval periods, although had suffered considerable disturbance, particularly from modern developments. The study area's close proximity to Bristol Bridge and the putative Saxon-period 'Arthur's Acre' were considered to be important factors in this respect. A building of some prominence, the 'Great House', later a sugar refinery, also once stood on the study area. The study area appeared to have undergone episodic redevelopment and was severely damaged during World War II, following which only Nos143-144 Redcliff Street survived (demolished 1981). The extant One Victoria Street, originally Portwall House, was constructed in the early 1980s.

Andrew Townsend, BaRAS

Nos. 10-22 Victoria Street, ST 59151 72836, BUAD 4450/1. Archaeological excavation revealed a large drainage ditch running west-east across the site, and its fill, dating from the 12th-14th centuries. This may represent one of the boundary ditches around the early bridgehead settlement known as Arthur's Acre, on the south side of the river Avon. These early deposits were truncated by pits, and a series of garden

soil deposits located on the west side of the site and possibly deliberately transported to the site, sealed the early cut features.

Medieval structural remains comprised a number of short sections of medieval stonewalls, believed to date to between the 13th and 15th centuries. These were built above the garden soil and alluvial deposits, and had been severely truncated by modern drainage features.

Early in the post-medieval period alterations were made to some of the medieval walls with drainage channels cut through or alongside them and some areas of the walls were rebuilt. A series of late 19th-century stone walls truncated, or in some cases incorporated into them, the earlier structural remains. These were the foundations of Victorian tenements constructed in the 1860s.

Simon Roper, BaRAS

TEMPLE

Avon Fire and Rescue Service Headquarters, Temple Back, ST 59295 72835 BHER 4472. A desk-based assessment was undertaken for this site, which lies on the east side of Temple Street and was probably first developed in the 12th century. Much of the area belonged to the Knights Templar, and after 1309 to the Knights Hospitaller, but was surrendered at the Dissolution. Like most of the medieval town the land was divided into long, narrow tenement plots. All ran back as far as an open area beside the Avon, later named Temple Back. One wider plot was used to build the almshouse founded by Thomas White in 1613, which was rebuilt later. Water Lane and Bear Lane were narrow medieval connecting streets joining the Street and Back. A glasshouse was active near Temple Back in the first half of the 18th century, not long after a pottery had been recorded in Temple Street. Other small industries followed, with a number of warehouses and stores present by the mid-19th century. A tobacco clay pipe factory was in production for about 20 years. Gables and jettied houses predominated on the main streets in the early 19th century, with some surviving into the 20th. Tiny, cramped dwellings were erected in some of the back yards. The area south of Bear Lane was partly destroyed by enemy action in 1941. Remaining buildings were cleared away for a new street, Counterslip, and for the site of a new central fire station and brigade headquarters, in the 1960s. The new facility was in use from February 1973 and remains operational today.

John Bryant, BaRAS

WESTBURY-ON-TRYM

Elmlea Primary School, ST 568 763, BHER 22386. A watching brief was carried out during groundworks associated with the construction of classrooms, entrance/reception rooms and a staffroom. No features or deposits of archaeological significance were observed.

Stuart Whatley, BaRAS

Land adjacent to No. 127 Westbury Road, ST 57279 76769, BHER 24592. A watching brief was carried out during groundwork associated with the construction of six houses. No features or deposits of archaeological significance were observed.

Tim Longman, BaRAS

Replacement Sewer Pipeline and Access Chambers, Westbury Road, ST 57294 76138. A watching brief was carried out during repairs to a drain. Monitoring was limited to the observation of a 1m by 1m test pit that revealed no archaeological remains or deposits.

Fay Pegg, COAS

WHITCHURCH

Filwood Park Playing Fields, Creswicke Road, Filwood, ST 5920 6930, BHER 24654, OASIS ID: bristola1-49691. A desk-based assessment was carried out on Filwood Park Playing Fields. The landowner is proposing to landscape and re-turf the site.

The evidence examined suggests that the land was probably always farmland up to the time it was converted into playing fields in the 1930s. The results of this assessment indicate that the study area lies within an area of high archaeological potential, particularly relating to the Roman and medieval periods, for which abundant evidence has been found by previous archaeological interventions.

Tim Longman, BaRAS

NORTH SOMERSET

CLEEVE

Cleeve Court, ST 4608 6568. A desk-based assessment of Cleeve Court House, a Grade II listed residential care home for the elderly dating to *c*1820, and associated garden was carried out. The house is noted for the reuse of ornamental stonework from the medieval manor house of Court de Wyck, Claverham, which Collinson had described as ruinous in 1791. Despite the nearby presence of two Iron Age earthworks, little was found to indicate the presence of archaeological remains within the site.

David Etheridge, AAU

CONGRESBURY

The Elms Nursing Home, Brinsea, ST 4449 6222. A desk-based assessment of the grounds and building of The Elms Nursing Home revealed a 16th-century reference to a farmstead on the site. the nearby discovery of nationally important late Saxon carved figural stonework and a series of HER entries for medieval settlement in this favourable fen-edge location indicates some potential for archaeological remains.

Jo Janik, AAU

LONG ASHTON

Bracken Hill, North Road, Leigh Woods, ST 5581 7297. An archaeological desk-based assessment of land currently occupied by Bracken Hill House built in 1896 and its associated buildings and gardens was undertaken. The study area itself is listed on the English Heritage Register of Parks and Gardens of Special Historic Interest. Aerial photographs

showed no evidence of archaeological features even though there are Iron Age hillforts in close proximity.

Amy Willis, AAU

Bracken Hill, North Road, Leigh Woods, ST 5581 7297. A recording project was undertaken to create a permanent record of eight glasshouses and other historic garden features prior to their destruction for residential development.

Lynn Hume & Donna Young, AAU

NAILSEA

Nailsea Glassworks New House Cone, High Street, ST 4768 7085. Eleven trial trenches were opened at locations across the site of the 19th-century former Nailsea Glassworks New House Cone, a Scheduled Ancient Monument located off the High Street, in order to establish the archaeological impact of proposed residential and commercial development plus associated infrastructure. The trenches were mostly sited around the periphery of the site, outside the footprint of the cone, which was extensively excavated during the 1980s, and in areas where industrial buildings and structures relating to the operation of the glassworks are indicated on a plan of 1870. Important archaeological remains relating to the 19th-century New House Cone glassworks are preserved as shallowly buried subterranean structures, features and deposits across the majority, if not all, of the study area.

AAU with Andrew Smith

PORTISHEAD

A detached garden on the north side of Church Road South, ST 4663 7595. A desk-based assessment was undertaken prior to proposed redevelopment. A study of the cartographic evidence indicated there had been a house within the study area in 1740 but was an empty plot by 1817. The site lies in the Court Farm Conservation Area adjacent to the Grade I listed St. Peter's church, of medieval date.

David Etheridge, AAU

WESTON-SUPER-MARE

Weston-super-Mare Technical College and School of Art, South Terrace, ST 317 618. An evaluation trench was sited within the footprint of a proposed extension to the Hans Price Building, in an area where amateur archaeologist Sergeant George Rodgers identified the remains of buried Roman-British buildings and finds during excavations for new services in 1959. Significant archaeological remains were found to be preserved on the site in the form of buried structures, deposits and artefacts of later Romano-British date, broadly the 3rd to 4th centuries AD.

Amy Willis, AAU

SOUTH GLOUCESTERSHIRE

ALMONDSBURY

Land off Bank Road, Pilning, ST 55900 84975, SGHER 18610. A desk-based assessment was undertaken. The evidence examined suggested that the study area comprised part of land known as 'Great Salt' in the late 18th century, although was depicted as enclosed agricultural land in 1822. The study area appeared never to have undergone built-development in recent times, although at one time was crossed by the Bristol & South Wales Union Railway, opened 1863, since removed. A geophysical survey undertaken by Stratascan Ltd revealed no evidence for features deemed to be of archaeological significance. A number of possible linear features were, however, indicated.

Andrew Townsend, BaRAS

ALVESTON

Little Abbey Camp, between cST 6400 8850 and ST 6460 8950. A watching brief was undertaken to monitor groundwork for the construction of a new 11Kv underground electricity supply that passed through Little Abbey Camp. The camp is a Scheduled Ancient Monument of probable late prehistoric to Roman date that today sits astride the A38 carriageway, itself probably following the route of an original Roman road. Monitoring the trench provided an important transect across the monument and demonstrated two important points: firstly, that significant buried archaeological deposits of Romano-British date, including at least one human burial, are preserved intact immediately below the substantial modern road formation and, secondly, that complex and stratified archaeology of Roman-British date including varied cut soil features and masonry structures, in combination with stratified artefacts, are almost certainly preserved throughout the footprint of the earthwork and in adjacent areas outside the hillfort. The data recorded broadly confirmed the Historic Environment Record entry, which suggests it was a single-rampart hillfort of probable late prehistoric origin although the identification of a substantial ditch, seemingly well outside the bank of the fort on the eastern side of the monument, hints that the detailed physical form of the fort is likely to be more complex. Moreover, the presence of one and possibly two inhumation burials (in addition to a third inhumation burial reported during road widening in the 1920s), alongside postholes indicative of related earth fast structures, raises the possibility that a small extra-mural cemetery was located immediately adjacent to the north-eastern side of the monument. Two AMS radiocarbon dates for the adult inhumation indicate a late 1st to early 2nd century AD date.

Andrew Young, AAU

BITTON

Golden Valley Mills, Mill Lane, ST 5920 6930, SGHER 18627, OASIS ID: bristola1-52254. A desk-based assessment and watching brief were carried out within the study area in Bitton, prior to the possible redevelopment of the site. The study area, located on the northwest edge of the village, lies at a height of *c*16m above Ordnance datum (aOD) and covers 4.08 hectares (10 acres). The site is largely occupied by industrial buildings belonging to Golden Valley Mills (formerly Bitton Mill) and in part by a former Wesleyan Methodist Chapel, a pair of terraced

houses (Nos. 95 & 97 Bath Road) and by areas of hard standing.

Documentary and cartographic evidence indicates that industrial buildings have long occupied the study area. The Bitton Mill site was home to an 18th century brass mill, then a paper mill in the 19th century and, from 1962, by a car components factory, while the Dacora building stands on the site of the former Phoenix iron foundry (*c*1900-55). Aerial photographs revealed a few features of potential archaeological interest, including a former course of the River Boyd, within the study area.

An archaeological watching brief was carried out simultaneously with the desk-based assessment. This involved monitoring the excavation of geotechnical trial pits located across much of the study area. Three pits in the North-western Yard, all contained in-situ structural remains, which probably belong to the 19th-century paper mill.

Tim Longman, BaRAS

FRAMPTON COTTERELL

Land at Park Farm, ST 6664 8081. A desk-based assessment of a study area comprising two fields was undertaken at Park Farm. Aerial photographs indicate possible features of archaeological interest in the form of parallel linear vegetation marks.

Amy Willis, AAU

HALLEN

Land at Willow Farm, ST 5454 8119. An archaeological watching brief on geotechnical test pits and boreholes was undertaken in May 2008. This was followed by a subsequent archaeological evaluation undertaken in August 2008. Eleven trenches were excavated throughout the proposed development area. The archaeological fieldwork identified a consistent alluvial sequence across the site. This included a thin organic clay silt layer, recorded between 4.37m and 5.02m aOD, interpreted as an undated, emergent salt marsh deposit. In addition, evidence of ridge and furrow cultivation was recorded in two trenches.

Tim Havard, CA

HANHAM

Land at Hanham Hall Hospital, Whittucks Road, Hanham Abbots, ST 64540 71626, SGHER 18583. Several evaluation trenches were excavated in the grounds of the former hospital. The fieldwork revealed Romano-British cut features of 3rd-4th-century date in the garden areas. Around the main house, structural features were identified that would have been associated with outbuildings, some of which were cartographically and photographically depicted in the 19th and early 20th century, together with a series of drainage runs dating from the later 17th-20th centuries.

Andy King, BaRAS

MANGOTSFIELD

Emersons Green East, ST 6750 7715, SGHER 18589. Following on from a geophysical survey, an evaluation consisting of nine trenches was undertaken on 1.3 hectares of land on the northeast side of the Avon Ring Road. Two linear features and another feature cut into the bedrock may be prehistoric in date, although no dating evidence was found. The scarcity of archaeological finds from the site presented difficulties in their interpretation.

Simon Roper, BaRAS

Rodway Hill sports ground, Pomphrey Hill Road, Mangotsfield, ST 66950 75910. An evaluation was undertaken prior to the construction of a new sports pavilion in an area of land to the immediate north of an extensive zone of multi-period archaeological activity that included a substantial building of 14th-15th century date previously investigated in 1999 as part of the A4174 Ring Road construction. The results suggest the remains of a long-lived rural medieval settlement, probably a farmstead spanning the 12th-15th centuries, and incorporating more than one building phase.

Donna Young, AAU

STOKE GIFFORD

Land off Coldharbour Lane, ST 6255 7775. A desk-based assessment was carried out on land currently occupied in part by a large car park, and by a large open field, both east of Coldharbour Lane. The site at Sims Hill (formerly Simon's Hill) is mainly located within the parish of Stoke Gifford, but the southern end lies just within the boundaries of the City and County of Bristol.

Documentary and cartographic evidence suggests that the land has probably always been farmed for pasture up to the present day. There are no recorded archaeological sites within the study area; however, the SGHER records two pillow mounds (SGHER 4519) in neighbouring woodland. A search of aerial photographs revealed several features of potential archaeological interest, including earthworks, within the study area. Due to the proximity of the earthworks to the pillow mounds, it was thought possible that they were a continuation of these. A subsequent walkover survey appeared to confirm this.

An 18th-century crenellated stone bridge (removed in the early 1970s) across Stoke Lane formerly linked the gardens northeast of Stoke Park House to an extensive L-shaped viewing terrace (designed by Thomas Wright in the 1760s) on Sims Hill. Avon County Council and the Countryside Commission restored the terrace, with its mature trees, in 1993. The hill provides views to the north and northeast that are not attainable from the house, and the terrace is included within the boundaries of 'Stoke Park' designated park and garden (English Heritage PG1025).

Tim Longman, BaRAS

THORNBURY

Sites on Rock Street and Bath Road, ST 6380 8983 and ST 6393 8990. A watching brief was undertaken during groundworks on two sites in close proximity, in the centre of Thornbury. No significant structures, deposits or finds were

located and no evidence that the Romano-British activity previously identified on Rock Street extended onto the development site.

Donna Young, AAU

WARMLEY

No. 2 High Street, ST 668 735. A photographic and drawn survey of No. 2 High Street was undertaken prior to demolition. First depicted on the Siston Tythe map (1839) and possibly at that time used as a stable, the building was extended in the 20th century with the addition of lean-to buildings to the rear.

Stuart Whatley, BaRAS

WICKWAR

Hill House Farm, ST 7188 8660, SGHER 18609. A desk-based assessment was carried out on the former granary barn of Hill House Farm. The study area is situated 1.5km to the south of the village of Wickwar. The evidence examined suggested that the study area had been in use as a farm from the 17th century, possibly replacing an earlier medieval site the remains of which were located nearby. The barn itself probably dated to the 18th century. There was no specific evidence of settlement from earlier periods located on the site. The area surrounding the site is considered to have some archaeological potential not least in view of the significant Roman and medieval sites found in the locality.

Simon Roper, BaRAS

WINTERBOURNE

Tithe Barn, Winterbourne Court Farm, Church Lane, ST 6260 7280. Monitoring of external groundworks for a *c*35m-long service trench at Winterbourne Court Farm was undertaken. A possible former farmyard surface was revealed and an un-mortared Pennant sandstone wall on a northwest to southeast alignment. This was completely different from the alignment of the barn and may have been one of the walls detected by a geophysical survey undertaken in 2004. No finds of significance were observed during the watching brief.

David Etheridge, AAU

Walled Garden of Winterbourne House, Swan Lane, ST 64964 81345, SGHER 18604, OASIS ID: bristola1-5084. A desk-based assessment was commissioned for land at Principle's House, Silverhill School, Swan Lane, Winterbourne. The evidence examined suggested that the study area had been enclosed within the grounds of Winterbourne House from the 17th century onwards and had been a walled garden from the mid 18th century. There was no specific evidence for its use prior to the construction of Winterbourne House. The grounds of Winterbourne House are considered to be an area of some archaeological potential, not least in view of the two Grade II listed buildings in proximity to the study area.

Simon Roper, BaRAS

REVIEW OF ARCHAEOLOGY 2009

Edited by Bruce Williams

Abbreviations

AAU	-	Avon Archaeological Unit
AA	-	Absolute Archaeology
BaRAS	-	Bristol & Region Archaeological Services
BRSMG	-	Bristol City Museum and Art Gallery
BHER	-	Bristol Sites & Monuments Record
CA	-	Cotswold Archaeology
COAS	-	Context One Archaeological Services Ltd.
MOLA	-	Museum of London Archaeology
NSHER	-	North Somerset Historic Environment Record

The review of archaeology is arranged alphabetically by parish and covers the four unitary authorities of Bath and North-East Somerset, Bristol, North Somerset and South Gloucestershire, formerly Avon County.

This may not be an exhaustive list however, as not all contractors, whether professional or amateur, inform the editor of their work.

Online Access to the Index of Archaeological Investigations (OASIS) references are included, where available. These provide an online index to information about a variety of archaeological investigations and facilitate access to and dissemination of 'grey literature that is being produced in the course of fieldwork.

BATH AND NORTH-EAST SOMERSET

BATH

Hayesfield School, Upper Oldfield Park, ST 7422 6427. Evaluation revealed a curving cut, most probably a pond depicted on the 1888 Ordnance Survey map within the landscaped gardens of Oakfield Park, a large house constructed in the 19th century.

Sian Reynish, CA

James Street West, Bath, ST 74784 64704. A watching brief at 'The Trinity' Public House. The groundworks involved the location of a lateral sewer leading from 'The Trinity' to the main sewer so that a sewage 'U' bend could be installed. Although the remains of a number of Roman buildings have been recorded in the vicinity of the site, no significant archaeological remains/deposits were observed and no finds were recovered during the course of the watching brief. However, as expected, groundworks demonstrated a high level of ground disturbance due to the insertion of previous services and, in this instance, the proximity of a World War Two bomb crater to the site.

Cheryl Allum & Richard McConnell, COAS

St Gregory's Catholic College, Odd Down, ST 7343 6169. Three evaluation trenches were excavated which found evidence of extensive quarrying across the site. The presence of a buried topsoil within two of the trenches suggests the areas of extraction remained open for a significant period of time before being covered by dumped clay and limestone fragments. Although the date the extraction commenced could not be determined, modern artefacts were recovered from the dumped layers.

Stuart Joyce, CA

BATHAMPTON

Bathampton Weir, Bathampton Mill, ST 7742 6695. A programme of building recording was undertaken prior to and during works to repair the dam and head race of the weir which had been badly damaged by winter floods over several seasons. The weir in its present form was an integral part of the mill as rebuilt in 1818, but it could not be ascertained whether any of the basic weir structure further to midstream was older. The working mill building was largely demolished in the early 20th century, although the residential blocks survived to form the core of the Bathampton Mill pub and restaurant. All the iron working parts have been long removed but their position and character could be recovered from the fragments of fixing bolts, and wear and positioning grooves in the stone work. Some fragments of timber beam-work survived, in particular a ground beam in the stone sett floor of the outflow channel, under the riverside arch. The mill dam was originally built entirely in Bath stone ashlar, some blocks being up to a metre and a half long, held together with iron clamps. Later repairs were in black engineering brick, concrete bagwork and smaller-scale rubble stone work. A watching brief recorded a blocked sluice at the south end of the dam, and evidence of the later 19th-century rebuilding of the mill was seen in the riverside arch at the south end of the

dam.

Peter Davenport, CA

CHEW STOKE

Land at Pagans Hill Farm, ST 55709 62872. A desk-based assessment was undertaken of farmland *c*250m north of Pagans Hill prior to erection of a free-range egg production unit. Aerial photographs showed evidence of medieval strip fields and former field boundaries within the study area.

AAU

CLANDOWN

Valley View, Fosseway, ST 684 559. A trial excavation consisting of three archaeological trenches was undertaken within the gardens of a private residence 'Valley View' at Clandown near Radstock. No significant archaeological features or finds were found even though the site adjoins the Roman Fosseway.

Jo Janik & Amy Willis, AAU

CLAVERTON

Walled Garden, The Old Rectory, ST 7882 6408. Evaluation found evidence for post-medieval quarrying and the remains of a glasshouse recorded on the 1855 Tithe Map.

Phillipa Mitcheson, CA

PEASEDOWN ST JOHN

Land north of Bath Road, ST 7028 5762. A desk-based assessment of land currently used for pasture showed the study area to have been undeveloped farmland up to the modern day.

Amy Willis, AAU

PENSFORD

Railway Bungalow, Bristol Road, Hursley Hill, ST 6188 6527. An evaluation trench near to the early post-Roman West Wansdyke (SAM AV100), revealed two probable buried soil horizons but no dating evidence.

Andrew Young, AAU

RADSTOCK

Land at Radstock Business Park, Wells Road, ST 6734 5400. Evaluation revealed a probable post-medieval ditch and four other undated ditches.

David Cudlip, CA

SALTFORD

Land to the rear of Nos. 11-12 Chestnut Walk and Nos. 527-541 Bath Road, ST 6850 6703. A desk-based assessment showed the study area was arable land until the 1930s. No extant features of archaeological or architectural interest were noted.

Amy Willis, AAU

STANTON DREW

Land off Tyning Lane, ST 5961 6277. An evaluation involving the excavation of four trial trenches was undertaken in order to assess a number of geophysical anomalies. Although no significant evidence for activity associated with the nearby Stanton Drew megalithic monument was located, significant Romano-British deposits of the 3rd- 4th centuries AD along with iron smithy technology residues were located in the south-west of the site.

Andrew Young, AAU

Stanton Drew Sewage Treatment Works, ST 60196 63179. A watching brief was carried out at Stanton Drew Sewage Treatment Works during the construction of a new trickling filter. Although the site lies immediately to the south-east of the prehistoric remains of the Stanton Drew stone circles (Scheduled Ancient Monument No. 22856), monitoring of development groundworks revealed no visible archaeological remains/deposits and no artefacts were found.

Cheryl Allum & Richard McConnell, COAS

TEMPLE CLOUD

Site at Fieldgardens Road, ST 6253 5808. A watching brief was undertaken at the south-western end of Fieldgardens Road, Temple Cloud during foundation trenching for two new buildings. Modern, made ground overlay undisturbed natural clay and bedrock deposits. No significant archaeological deposits or finds were revealed and no evidence found for human activity prior to the later post-medieval and modern periods.

Amy Willis, AAU

TWERTON

Marjorie Whimster House, High Street, ST 7270 6458. A desk-based assessment of land currently occupied by Marjorie Whimster House, indicated a moderate to low potential for the survival of significant archaeological deposits, particularly relating to the post-medieval and possibly earlier dwellings formerly located along the High Street frontage.

AAU

Marjorie Whimster House, High Street, ST 7270 6458. An evaluation involving the excavation of seven trenches was undertaken within the footprint of Marjorie Whimster House. Trenches sited to evaluate the High Street frontage mainly revealed deposits of highly mixed demolition rubble, probably from the former 18th-century Barratt's Buildings cottages. Excavation of a pit produced an assemblage of medieval pottery sherds. Post-medieval finds and features were also found on the site.

Lynn Hume, AAU

WALCOT

Barn Close, No. 12 Lambridge, ST 76210 66350. A desk-based assessment was undertaken. Numbers 12 and 13 Lambridge (Grade II listed) appeared to have been constructed in the second half of the 18th century on land formerly under cultivation. A coach house and stables had

been constructed at the rear of No. 13 Lambridge by 1792, the yard of which was occupied by part of the study area. The proximity of the study area to the Roman Bath (Aquae Sulis) and the Fosse Way suggested that the study area and its environs comprised land having good archaeological potential. This is borne out by numerous finds from the area including a Roman stone coffin discovered immediately to the east of the study area in 1824. Part of the study area was found to lie within the conjectured limits of the Walcot Roman Cemetery (the main cemetery of Aquae Sulis).

Andrew Townsend, BaRAS

BRISTOL

BEDMINSTER

Asda Car Park, Coronation Road, ST 58820 71990, BHER 24812, OASIS ID: bristola1-64178. A watching brief carried out during groundworks associated with the construction of a petrol station in the north-east corner of the Asda car park revealed modern ground-levelling deposits and a dump of redeposited alluvium from the construction of the New Cut for the River Avon in the 19th century.

Heather Hirons, BaRAS

The former East Street Baptist Church, No. 177 East Street, ST 58360 71447. A standing building survey and watching brief was conducted at the former East Street Baptist Church prior to conversion of the church and church hall into residential accommodation. A rock-cut rectangular pit, possibly a former cistern, measuring 2.45m x 2.35m and up to 1.3m deep, was exposed. The surviving upper portion of the pit was lined with up to four courses of dry-stone walling. Pottery from the uniform fill of the pit was medieval in date. A ditch containing 16th/early 17th-century ceramics may represent a former tenement boundary for a property originally fronting East Street. A rubbish pit near the southern boundary wall contained an important collection of complete artefacts from the mid 18th-century.

David Etheridge & Richard Payne, AAU

The Red Cow Public House, West Street, ST 58080 71060, BHER 24791, OASIS ID: bristola1-61102. The former Red Cow public house, No. 113 West Street, Bedminster was recorded to English Heritage level 2 standard prior to demolition. Photographic recording was accompanied by annotation of existing architects' drawings. This two-storey Lias limestone-built structure was probably of 18th century origin, with single storey rear blocks added in the 19th century. Partial cellarage survived at basement level. Internal alterations were undertaken in 1932 with further works following later, including the installation of what was reputedly Bristol's shortest skittle alley in the former scullery. In the rear yard a brick-built stable and coach house were erected in the second half of the 19th century.

John Bryant, BaRAS

The Red Cow Public House, West Street, ST 58080 71060, BHER 24792, OASIS ID: bristola1-61158. A watching brief was carried out during groundworks associated with the construction of a three storey Guest House on the land formerly occupied by the Red Cow public house. The groundworks revealed the footings of the building, an earlier stone surface, possibly dating to a building shown by map evidence to predate the Red Cow, and a post-medieval drain running parallel to the site and only visible intermittently in section.

Heather Hirons, BaRAS

The former Robinson Building and associated car park off Norfolk Place with Nos. 157 to 159 East Street, ST 5840 7146. A building survey was undertaken prior to partial demolition and redevelopment of the study area. While No. 157 East Street was found to be a brick-built structure of late 19th or early 20th century date, No. 159 incorporated structural elements in lime mortared sandstone and limestone that probably date to the 18th century. Monitoring of below ground works revealed nothing of archaeological significance.

David Etheridge, AAU

Two sites at Novers Common and at Kingswear and Torpoint Roads, centred on ST 5873 7045. A desk-based assessment of approximately 11.65ha of land divided between two study areas in Knowle West was undertaken but suggested that overall potential for surviving archaeology is low.

Amy Willis & Donna Young, AAU

Imperial Tobacco Cigar Factory, Winterstoke Road, Ashton, ST 5695 7090, BHER 24824, OASIS ID: bristola1-67243. A desk-based assessment was carried out at Bristol Cigar Factory, which is owned by Imperial Tobacco Limited.

Documentary and cartographic evidence suggests that most of the land was probably always farmland up to the time 'Ashton Saw Mill' was built c1922. A 'House & Garden', formerly located in the north-east corner of the study area, is first recorded cartographically on a parish map of 1826. By 1923 the building is referred to as 'Saw Mill Cottages'. These cottages were 'destroyed by enemy action' during the Second World War and were rebuilt in 1946 as 'Nos. 147 & 149 Winterstoke Road'. Ashton Saw Mill, known as 'Ashton Containers' factory by 1937 was rebuilt and enlarged on several occasions from the 1930s onwards and by the late 1970s the factory buildings occupied much of the site. Ashton Corrugated (Ashton Containers Ltd) was taken over (now part of the St Regis Group) in the late 1980's and the factory on Winterstoke Road was closed. The site, however, was soon acquired by Imperial Tobacco Ltd for the site of a new cigar factory and all the existing buildings (except for the factory building fronting Winterstoke Road) were demolished to be replaced by a new purpose-built factory, which opened in 1991.

A trawl of the Bristol City Council Historic Environment Record (BHER) showed no archaeological entries (other

than the present study) located within the study area.

Timothy Longman, BaRAS

BISHOPSWORTH

Hartcliffe Methodist Church, Mowcliffe Road, Hartcliffe, 58540 67850, BHER 24782, OASIS ID: bristola1-57841. A watching brief was carried out during groundworks associated with the construction of nine flats and four houses in the grounds of the former Hartcliffe Methodist Church. No features or deposits of archaeological significance were observed.

Heather Hirons, BaRAS

BRISLINGTON

West Town Lane, ST 61271 69831. A watching brief during groundworks for a replacement sewer pipeline recovered evidence for the demolished remains of an open-sided farm building towards the western end of the pipeline scheme, with a rubble trackway extending northwards. The finds assemblage confirmed a 19th to 20th-century date for the farm building, which is consistent with the cartographic evidence and the known history of the former Rookery Farm in that location. Beneath the farm building was an earlier NE to SW aligned post-medieval to early modern land drain, presumably associated with the farm complex. To the north of the excavated area was a boundary wall which may be the northern boundary of the gardens at Rookery Farm or possibly a stone filled land drain.

Cheryl Allum & Richard McConnell, COAS

CASTLE PRECINCTS

Vaulted Chambers, Castle Park, Castle Street, ST 59377 73139, BHER 24808, OASIS ID: bristola1-62255. A watching brief during groundworks associated with the replacement of an electric cable running beneath the path to the east of the Vaulted Chambers revaeled no features of archaeological significance.

Heather Hirons, BaRAS

CLIFTON

Chesterfield Hospital, Clifton Hill, ST 57299 72942, OASIS ID: bristola1-65666. A desk-based assessment for land at Chesterfield Hospital, Clifton was underaken. The study area was situated within Clifton, on Clifton Hill. The study area is located within the medieval settlement of Clifton, believed to have been in existence from the 9th century onwards. Relatively little is known about the medieval origins of the settlement, much of the area being redeveloped in the 18th century. The main house of Clifton Court and the stable block were built in 1742 for Martha Goldney and Nehemiah Champion II. Additional structures were added in the 19th century. The garden to the rear of the main house has not had any substantial buildings built upon it until the 20th century when the property was converted to a nursing home.

Simon Roper, BaRAS

No. 6 College Fields, ST 56835 73771, BHER 24719, OASIS ID: bristola1-53998. A desk-based assessment was carried out at 'Northwick Villa', No. 6 College Fields in Clifton. Documentary and cartographic evidence indicates that the present house has occupied the site since *c*1871.

Until the construction of the present house the study area lay in farmland, within a small field on the edge of Durdham Down known in 1746 and 1844 as 'Three Acres West Ground' and in 1867 as 'Little West Ground'. In 1867 the study area was described in an Indenture Agreement. The present house was built within the study area in 1871. From 1872 until 1933 the three-storey detached house was a private residence, but in February 1933 it was bought by Clifton College. In 1947 the building was being used by Bristol City Council as 'City Engineer & Surveyors' offices. In 1951 it was subdivided into flats for teachers accommodation. The house became a private residence again in August 2000 when the school sold the property to Mr and Mrs J. D. Poland.

Tim Longman, BaRAS

Entrance Lock and Junction Lock, Cumberland Basin, Hotwells, ST 56770 72410 and ST 57105 72300, BHER 24809, OASIS ID: bristola1-63083. Recording of locks and quayside features took place at Entrance Lock and Junction Lock, Cumberland Basin, Bristol preparatory to Phase 2 of the Bristol City Docks Operational Infrastructure scheme, which will see new operating mechanisms for the two pairs of lock gates and pair of backup stop gates. Installation of new ram pits will see parts of the original lock walls and some lockside features removed. Apart from the stonework of the two locks, built in 1867-73, some of the cast-iron plates above the lock walls were seen to be probably original, while a number of mooring posts may also be contemporary.

John Bryant, BaRAS

Entrance Lock and Junction Lock, Cumberland Basin, Hotwells, ST 56770 72410 and ST 57105 72300, BHER 24810, OASIS ID: bristola1-63086. A watching brief was undertaken during Phase 2 of Bristol City Docks Operational Infrastructure scheme. Alluvium was exposed in a number of excavations, usually with about 700-800mm of made ground above it. The main south-west wall of Entrance Lock was noted as becoming thicker with depth on its landward side. Little else of interest was seen.

John Bryant, BaRAS

No. 4 Harley Place, ST 56888 73416, BHER 24765, OASIS ID: bristola1-55438. A building assessment at 4 Harley Place, Clifton was carried out on the garage at the rear of the property prior to its demolition. The evaluation was commissioned at the request of the BCC Conservation Officer in order to assess the building materials it was possible to reuse. The garage of no. 4 Harley Place had five principle elements of construction; a wooden roof, flagstone floor, 19th-century brickwork, rubble side walls and modern rebuilding of the front (north) elevation. The majority of these materials were unlikely to be of reuse value. Based on the materials used the structure dated to the early 19th

century.

Simon Roper, BaRAS

EASTON

Adelaide Place, ST 60812 73876, BHER 24804, OASIS ID: bristola1-62018. A desk-based assessment was carried out for land at Adelaide Place, Easton. The study area was situated within Upper Easton, off All Hallows Road to the north of Easton Road. The site was first developed between 1842 and 1882, a date in the 1850s is likely for the building of terraced housing on the site to have taken place. Adelaide Place is probably named after Queen Adelaide, the wife of William IV, who died in 1849. There is no specific evidence to indicate the use of the site prior to the 19th century, therefore fields or common land appear to be the most likely use.

Simon Roper, BaRAS

HENBURY

Land off Barrowmead Drive, Crokeswood Walk & Saltmarsh Drive, Lawrence Weston, ST 54050 77658, 54175 78277 & 54256 78344 BHER 24829, OASIS ID: bristola1-68674. An evaluation was carried out, in advance of planning applications to build residential housing, on three redundant domestic garage sites.

A single trench was mechanically excavated on each of the three sites; Trench 1 at Saltmarsh Drive measuring 15m long x 2m wide, while Trenches 2 and 3, at Crokeswood Walk and Barrowmead Drive respectively, both measured 5m long x 2m wide.

A 2m length of possible enclosure ditch (0.65m wide x 0.35m deep), containing several small sherds of Romano-British pottery and a single small flint, was recorded in Trench 1, while no significant archaeology was recorded at either of the other two sites.

Tim Longman, BaRAS

LONG ASHTON

Former Milking Parlour, Kennel Lodge Road, Bower Ashton, ST 56280 71800, BHER 24762, OASIS ID: bristola1-55144. A desk-based assessment was carried out for a small site immediately behind the Kennel Lodge itself. This had long been part of the Ashton Court estate, which the Smyth family owned from the mid-16th century until 1946. In probably the early 19th century a rectangular building was erected as a smithy. This was followed after 1842, but before 1865, by a milking parlour with a neo-Tudor type façade, built on the south-east side of the smithy, partly on the site of an earlier, smaller shed. Finally, a small south-west one-room extension was added, not long before the First World War. Both of the larger structures have been roofless for many years, but the extension remains in reasonable condition.

John Bryant, BaRAS

Former Milking Parlour, Kennel Lodge Road, Bower Ashton, ST 56280 71800, BHER 24800, OASIS bristola1-61909. Recording of the standing structure was followed by a watching brief during subsequent redevelopment of the site, which revealed both end walls of the original south-east block (later incorporated into the milking parlour range), also original drainage, and a later cross-wall.

John Bryant, BaRAS

REDCLIFFE

St Mary Redcliffe Church, Redcliff Way, ST 59142 72323, BHER 24759, OASIS ID: 54724. A watching brief was undertaken in the room known as Canynges' Kitchen during works to investigate air ducts leading to the church organ from the outside blowing room. Large-diameter ceramic drainage pipes had been laid in concrete beneath the floor when the ducting was first installed in the 1930s and nothing of archaeological interest was found.

John Bryant, BaRAS

SHIREHAMPTON

No. 2 Pembroke Road, Shirehampton, ST 53257 76795, BHER 24817, OASIS ID: bristola1-64980. Prior to demolition, a single-storey outbuilding was recorded to the rear of No. 2, Pembroke Road, Shirehampton, Bristol. Built of local stone rubble with red brick dressings, bonded in a creamy/light grey lime mortar, and with a clay pantile-covered pitched roof, it was probably erected in the 1880s for the local blacksmith. The gabled dwelling fronting the street was built simultaneously, with, in 1891, no less than four smiths resident. Early 20th-century OS plans recorded the outbuilding as the smithy, but it was later used by a wheelwright and undertaker, also for carpentry, and latterly was in use as a garage for a funeral director based at No. 2.

John Bryant, BaRAS

St Brendan's Church, St Andrews Road, Avonmouth, ST 51794 78112, BHER 24811, OASIS ID: bristola1-64017. St Brendan's Roman Catholic Church, Avonmouth was recorded prior to its demolition for redevelopment of the site. Built of buff-coloured brick in the mid-1950s it had not seen any significant alteration before its closure in early 2004. There was an aisleless nave with a west gallery above a narthex, and a small south transept. Tiny side chapels were placed to either side of the chancel. There was an attached bell tower close to the north-west corner of the building. Some of the fittings, including the altar and font, had already been removed, but the 1950s decorative communion rail ironwork and narthex screen remained.

John Bryant, BaRAS

Site of former St Brendan's Church, St Andrews Road, Avonmouth, ST 51794 78112, BHER 24821, OASIS ID: bristola1-64018. An excavation was carried out as a condition of planning consent.

Other than the heavily truncated remains of an earthen Sea Bank, its in-filled drain or rhine, cartographic evidence of which dates from as early as 1769, and brick and concrete foundations belonging to the former church, no features or deposits of archaeological significance were observed during the excavation.

Tim Longman, BaRAS

STAPLETON

No. 105 Glenfrome Road, Eastville, ST 60480 75090, BHER 24763, OASIS ID: bristola1-570005. A watching brief during the groundwork associated with the construction of a development containing office units, flats and houses on land known as No. 105 Glenfrome Road revealed no features or deposits of archaeological significance.

Heather Hirons, BaRAS

Nos. 138, 140 and 142 Frenchay Park Road, ST 6262 7692. A desk-based assessment of three properties fronting the south side of Frenchay Park Road was undertaken. Number 138 is a 1930s semi-detached house. Numbers 104 and 142 form a matching pair which presumably formed gatehouses to the Beaufort Nursery, as shown on the 1882 OS map, and which records indicate was in existence from 1879 to 1931.

David Etheridge, AAU

ST GEORGE

Crew's Hole Road, ST 6249 7318. Permission was granted to demolish The Nook, a small house set back on a steep hillside north of the main road, overlooking the Avon, on condition that a building record and watching brief on groundworks were carried out. This showed that a small single cell, two-storey building, built in random sandstone rubble and brass slag blocks and probably of later 18th-century date, was extended by one small bay to its western side at some time probably not long after the original build. A re-used timber was noted in the extension structure. In the later 20th century, probably in the 1960s and 70s, the house had a second floor added and extensions to the south and west. Ruined remains of further buildings, seemingly similar cottages of similar date, were noted at the southern and western edges of the site. The buildings seemed to have been built as accommodation for workers in the copper smelting and brass working industry that flourished here in the 18th and early 19th centuries. Contemporary boundary and terrace walls, mostly in black brass slag blocks, defined the site.

Peter Davenport CA

Land adjacent to the River Avon on Crews Hole Road, St George, ST 626 731. A desk-based assessment was undertaken on approximately 2775 square metres of land adjacent to the River Avon partly occupied by an engineering works. Buildings on the Crews Hole Road frontage were identified as the 19th-century Lamb Inn public house and an adjoining terraced rank of smaller houses, probably those represented on Maule's 1803 plan. It is concluded that whilst the study area is located within part of a historically important area in the industrial development of Bristol, the site itself remained largely undeveloped over this time.

Donna Young, AAU

Nos. 52-54 Marling Road, St George, ST 630 735. A desk-based assessment showed that a building has existed on the site of the present house since at least 1803. This building may well have been of 18th century or earlier origin.

David Etheridge, AAU

South View, Stibbs Hill, ST 63395 73314, OASIS ID: bristola1-61272. An evaluation was carried out on a site comprising an area of derelict land, heavily overgrown with dense vegetation, located within a residential area.

The evaluation of the site revealed relatively few archaeological remains or material. Of the three trenches excavated, only one trench contained any archaeological remains of significance. One of the features within the trench is probably the circular pit in which sat a Pug Mill depicted on the first edition Ordnance Survey map, highly compacted deposits possibly forming a base or foundation for it. The feature was only partially exposed within the trench, extending beyond it to the north and west.

Simon Roper, BaRAS

ST JAMES

Hill House Hammond, Lewins Mead, ST 5884 7339, BHER 24756 & 24776, OASIS ID: bristola1-57004. An excavation and watching brief were carried out at the former site of the Hill House Hammond building in Lewins Mead. A number of medieval walls and pits were excavated which were probably associated with an outbuilding of the friary which was located in the area during the medieval period. In addition the walls and yard area of the 18th-century 'New Buildings' were also recorded.

Simon Roper, BaRAS

Somerset House, No. 42 Alfred Hill, ST 5859 7363. A desk-based assessment of Somerset House, No. 42 Alfred Hill, Kingsdown, was undertaken. The study area was probably laid out and the primary wing of the present house built between 1800 and 1828. The secondary wing was added before 1855. The building was one of a pair, with adjoining Dorset House (demolished *c*1905-1908). Alfred Hill was formerly known as Prior Lane in the late 18th and early 19th centuries. The route appears to have been one of the principal ways northward from the City during the later Middle Ages, but had been reduced to a farm track by the 17th century. During the 18th century the route was reused as local access to the summerhouses of wealthy Bristol merchants.

David Etheridge, AAU

St James Priory, Whitson Street, ST 5888 7346, BHER 24820, OASIS ID: bristola1-65981. Recording work was undertaken both before and during extensive conservation and repair works to St James Priory Church. The present building largely dates from the late 12th century and was formerly the nave of the priory church, but both aisles were later widened, and a tower was added in the 14th century. Works also involve Church House, which incorporates remains of the western cloister and range, and parts of three post-medieval houses in Cannon Street.

John Bryant, BaRAS

ST JAMES WITHOUT

Former No. 63 Ashley Hill, Montpelier, ST 59719 74967, BHER 24761, OASIS ID: bristola1-55084. A building assessment was undertaken. A comparison of the 1877 architectural plans for the new 'St Werburgh's Vicarage' with those of 1975, when the building comprised the Ashley Court Hotel, suggested that much of the original 19th-century fabric, notably external elements, survived until the 21st century. The building appeared, nevertheless, to have been extensively altered internally since it was initially constructed.

Andrew Townsend, BaRAS

ST MICHAEL

Former Bristol Children's Hospital, St Michaels Hill, and 73-77 St Michaels Hill and 22-24 Tyndall Avenue, ST 58350 73500, BHER 4401, OASIS ID: bristola1-65703. In late 2009 and early 2010 three groups of buildings at the top of St Michael's Hill were recorded to English Heritage Level 2 standard prior to demolition. These were the former Children's Hospital (excepting the block fronting the street, which is to be retained), Nos. 73-77 (odds), and Nos. 22 & 24 Tyndall Avenue. The hospital was built in the 1880s but significantly altered in 1929-31 to the designs of George Oatley, chiefly in the rebuilding of the ward blocks and addition of a third storey. In St Michael's Hill were three early Edwardian terraced houses of two storeys, two of them with partial basements. The semi-detached three storey villas in Tyndall Avenue were designed in 1905. Some contemporary fittings survived in all buildings, although much had disappeared, most especially virtually all of the chimney-pieces.

John Bryant, BaRAS

Land at St Michael's Hill and Tyndall Avenue, ST 58310 73470, BHER 24786, OASIS ID: bristola1-59034. Excavations continued on the site of the Civil War fort known as the Royal Fort. Parts of a possible barrack block measuring over 14m by 4m and a subterranean masonry structure, of uncertain use, measuring over 4m square and 4m deep, were recorded. Finds included a cannon ball, a cache of 33 musket balls and a lead cap from a powder flask. The fort was demolished in 1655-6 and the site redeveloped in the mid 18th century into Royal Fort House and Tyndall House. Structural elements from this period included an ice house.

Andy King, BaRAS

No. 4 Christmas Steps, ST 58631 73182. A watching brief was undertaken during reparation of a sewer drain. Although the site lies within the medieval quarter of historic Bristol and the Christmas Steps Conservation Area, where several of the surrounding buildings are listed, no archaeological remains/features were observed during the course of archaeological monitoring.

Cheryl Allum & Richard McConnell, COAS

ST PAULS

Brunswick Cemetery, ST 59270 73720, BHER 24773, OASIS ID: bristola1-56350. A desk-based assessment was undertaken. The cemetery is depicted cartographically on Benjamin Donne's map of 1773, the land having been purchased by the Presbyterian Society in 1768. Prior to this, the land (also the cemetery in its present form) appears to have been under cultivation, probably for market gardening. Although originally Presbyterian, the cemetery had become Unitarian by the beginning of the 19th century. The original 'Presbyterian Burying Ground' was extended to roughly its present size by the time of Donne the Younger's 1826 map. By the time of Plumley & Ashmead's 1828 map, the burial ground incorporated a mortuary chapel, although the building has also been referred to as a 'speaking house'. By the time of the First Edition OS (early 1880s), the present cemetery also incorporated a portion of the burial ground used by the Congregational Chapel (Brunswick Chapel). The cemetery continued to be used for burials until 1963. The cemetery was landscaped for public amenity use in the early 1980s entailing the removal of many of the grave memorials and laying-out of paths. At the time of the walkover survey, a number of grave monuments were still visible in the cemetery, some of which enjoy Grade II listed status. The area presently occupied by the access route on the north-west flank of the cemetery was originally occupied by buildings on the southern side of Wilder Street that appeared to have been extant in the second half of the 18th century.

Andrew Townsend, BaRAS

Former English Corrugating Paper Company Works, Dove Lane, ST 5965 7383. A programme of historic building recording was carried out ahead of demolition of industrial and other buildings. The majority of buildings were utilitarian brick-built structures of mid to late 20th-century date, representing the remains of the former English Corrugating Paper Company works. A number of small buildings dating to the 19th century survived, having been incorporated within the factory complex. Little of the machinery from the Corrugating Paper works remained *in situ* within the buildings.

Peter Davenport CA

Full Moon Hotel and Attic Bar, No. 1 North Street, Stokes Croft, ST 59085 73655. A desk-based assessment was undertaken of the Full Moon Hotel, a Grade II listed former coaching inn and stables on the north side of the study area and the 1950s Attic Bar to the south. A central courtyard is accessed from North Street through an ornate 18th-century Grade II listed wrought iron overthrow arch. Several published sources indicate the original portions of the Full Moon date from the later 17th century, but the first record of it is found in deeds of 1716 and 1717.

David Etheridge & Donna Young, AAU

Full Moon Hotel and Attic Bar, No. 1 North Street, Stokes

Croft, ST 59085 73655. An evaluation involving two trenches was undertaken. They were sited to confirm the nature of the foundations of the 1950s Attic Bar building. postholes were dated by pottery to the late 17th and 18th centuries. It is likely that these indicated the position of a former earthfast timber structure, possibly the veranda or covered walkway depicted on Ashmead and Plumley's map of 1828. The earliest deposit, revealed in both trenches, appears to reflect the local pre-development landscape which, judging from the documentary evidence and the modest assemblage of finds, seems to have consisted, prior to the 17th century, of open, probably agricultural land.

Lynn Hume, AAU

Nos. 86 to 92 with nos. 96 to 102 Stokes Croft, ST 591 739. A desk-based assessment concluded that there is potential for the preservation of buried archaeological deposits within the study area, particularly in relation to the late 17th to early 18th century urbanisation of this part of Bristol. The properties fronting onto Stokes Croft have cellars of unknown date.

Jo Janik, AAU

ST PAUL WITHOUT

The former Brooks Laundry site, ST 600 745. A desk-based assessment of the former Brooks Laundry site to the south of Sevier Street and Southey Street was undertaken. The study area comprises a number of industrial buildings. Prior to the mid 18th century the site consisted of enclosed fields but there may be archaeological deposits surviving which relate to 19th-century terraced houses.

Amy Willis, AAU

SS. PHILIP & JACOB WITHOUT

Junction of Avonvale Road & Beam Street, Barton Hill, ST 61080 73035, BHER 24758, OASIS ID: bristola1-54710. A watching brief was carried out during groundwork associated with the construction of 4 commercial units and 12 flats at the junction of Avonvale Road and Beam Street. During the intrusive groundwork the only archaeological features that was observed were parts of 19th century brick foundations associated with one of the terraced houses on Corbett Street and Great Western Street (now Avonvale Road) that occupied the site between the 1830s and 1960s.

Richard Coe, BaRAS

Nos. 26-28 Gloucester Lane, Old Market, ST 5989 7332. An area of 98m^2 was excavated. A series of north/south and east/west sandstone and brick walls were partially revealed which probably relate to buildings which fronted onto Gloucester Lane depicted on 18th-century mapping. The walls were sealed by 19th-century or later demolition deposits.

Hazel O'Neill, CA

Site on the Corner of Midland Road and Horton Street, ST 5989 7301. A desk-based assessment concluded that the site consisted of open agricultural or horticultural land until the early 19th century, after which it was successively developed for a public house (Albert Tavern, later Western House) and residential properties. Modern development as a service station is likely to have had an impact on any buried remains present on the site.

Amy Willis, AAU

Site of the former convent, Pennywell Road, ST 6006 7383. Archaeological monitoring of groundworks associated with the development for residential housing of a site on the east side of Pennywell Road revealed finds and structures relating to the former late 19th century tenements shown on detailed mapping from 1874 until 1945. A gravel layer tentatively identified as a geological deposit known as the Greensand, was observed in section across the southern portion of the site at approximately 10.70m aOD. The Greensand has been dated to the Pleistocene era, and in other parts of Bristol has been associated with finds of Palaeolithic implements

David Etheridge, AAU

The Former Waggon & Horses Public House, 83 Stapleton Road, Easton, ST 60249 73680, BHER 24831, OASIS ID: bristola1-68938. Archaeological building-recording was undertaken. Substantial elements of the original late-18th/early-19th-century Waggon & Horses were recorded, namely those associated with the 'Front Building' (i.e. that fronting Stapleton Road). The north-west (frontage) elevation of the 'Front Building' appeared to retain much of its original late-18th/early-19th-century character. The 'Rear Building' of the premises appeared to incorporate elements associated with the 19th-century brewery, and a skittle alley of possible late-19th/early-20th-century date. No evidence, however, for brewing or other industrial activities was observed at the rear of the premises. In addition to alterations undertaken at other dates, the entire premises was redeveloped in 1935. The latter appears to have entailed the removal of a number of 19th-century buildings and the addition of a new cellar. Elements of what appeared to be 19th-century masonry were also observed in portions of the boundary walls on the north-east and south-west flanks of the premises.

Andrew Townsend, BaRAS

Winstanley House, Holmes Street, Barton Hill, ST 60838 72820, BHER 24778, OASIS ID: bristola1-57259. A desk-based assessment was carried out at Winstanley House. The present group of inter-connected two-storey residential buildings (Nos. 1 - 33 Winstanley House) have occupied the site since 1972.

Until the early 1970s and the construction of the present buildings the study area was occupied by an 18th/19th-century cottage (later subdivided) on Barton Hill Lane (later Queen Ann Road) and late 19th century terraced housing fronting on Holmes Street, Goulter Street and Queen Ann Road. Prior to the construction of the terraced houses from

the late 1870s/early 1880s, the study area lay within two fields (areal units 1083 & 1086) to the south of Barton Hill Lane (now Queen Ann Road). They were known, in 1847, as 'Garden land' (probably refers to its use for market gardening) and 'House & land'. The latter areal unit, plot 1086, is shown on plans from 1828 onwards as including a dwelling.

Tim Longman, BaRAS

St Nicholas of Tolentino, Lawfords Gate, ST 59943 73483, BHER 4453, OASIS ID: bristola1-65407. A watching brief was carried out on the site of a new presbytery for St Nicholas of Tolentino R. C. parish church. This work took place in late September 2009. Remains of the previous building, formerly a Roman Catholic school, had been removed in 2008 and the site excavated down 0.6m or more and then backfilled. Trenching for the new building cut into the natural red-brown sand below and revealed a short length of foundations from the earlier, 1850s, school, and two possible minor features that may have been of recent origin.

John Bryant, BaRAS

Land adjacent to No. 46 Wade Street, ST 5985 7347. Monitoring of groundworks associated with the development of residential housing adjacent to No. 46 Wade Street found evidence of the *c*1707 artisan tenements which were demolished some time after 1936. Wade Street and the adjoining streets were known to be a centre for the manufacture of clay tobacco pipes in the 19th century but no evidence of this activity was found. During piling of the site evidence was found *c*4.5 metres below ground level, for the presence of the Greensand, a Pleistocene deposit associated elsewhere in Bristol with finds from the Palaeolithic era.

David Etheridge, AAU

Nos. 59-62 West Street, Old Market, ST 59959 73317, BHER 24828, OASIS ID: bristola1-68682. A desk-based assessment was carried out for land at Nos. 59-62 West Street, Old Market, Bristol. The study area was situated within the Old Market Conservation Area, 1 kilometre from the centre of Bristol. It comprised a building fronting on to West Street with a rear yard accessed via Braggs Lane. The study area is located within the area of medieval settlement that grew up just outside the city boundary. Relatively little is known about the medieval origins of this area owing to much of the settlement being levelled and cleared in the 17th century, during the Civil War. However some medieval deposits and fragments of medieval structures have been found during archaeological excavations close to the study area. During the 18th and 19th centuries development built up in the gardens and yard areas behind the houses fronting on to West Street. This included a small chapel, a terrace of dwellings and associated outbuildings. The whole site was cleared and vacant by the middle of the 20th century, possibly as a result of bomb damage suffered during the Second World War.

Simon Roper, BaRAS

ST THOMAS

Church of St. Thomas the Martyr, Thomas Lane, NGR ST 59115 72766, BHER 24711, OASIS ID: bristola1- 53786. A watching brief was carried out during the groundwork associated with the installation of a toilet, kitchenette and associated services in the north-east vestry of the Church of St. Thomas the Martyr. This revealed an empty burial vault and a possible crypt entrance associated with the current 18th-century church as well as a wall, possibly part of the earlier medieval church.

Heather Hirons, BaRAS

Little Thomas Lane, ST 59086 72775, BHER 24711, OASIS ID: bristola1- 53783. A watching brief was carried out during the excavation of four test pits at Little Thomas Lane, Redcliffe. The test pits revealed possible stone vaulting, previous lane surfaces and the medieval footings of the tower of the Church of St. Thomas the Martyr, the footings for Beckett Hall and a brick-built drain associated with Beckett Hall.

Heather Hirons, BaRAS

WESTBURY-ON-TRYM

No. 6 Cotham Road, Cotham, ST 58300 73814, BHER 24705. A photographic survey was carried out on the rear boundary wall of No. 6 Cotham Road prior to its repair. Research suggests that the boundary wall was originally constructed at some point between 1825 and 1841. The line of the boundary wall is clearly depicted on the 1841 Tithe map, however on Sturge's map of 1825 Cotham Road itself is not depicted, with the area to the immediate north of Clarence Place still shown as fields. The wall itself comprises two principal elements; the original stone built wall and a brick extension built on top of the stonework.

Simon Roper, BaRAS

No. 21 Downleaze to Stoke Park Road South, ST 56600 75200. A watching brief was carried out during groundworks. Although the remains of a Roman road (Scheduled Ancient Monument No. AV88) lay within the immediate area of the site, no archaeological remains/deposits were observed during the course of archaeological monitoring.

Cheryl Allum & Richard McConnell, COAS

WHITCHURCH

Skills Academy, Hengrove Park, Whitchurch Lane, ST 595 685, BHER 24652, OASIS ID: bristola1-49554. A watching brief was carried out during groundworks associated with the construction of a new skills academy. No features or deposits of archaeological significance were observed. However, a small sunken rectangular structure (associated with the WWII airfield) was uncovered in the eastern corner of the site.

Richard Coe, BaRAS

Hengrove Park Phase 1, Whitchurch Lane/Hartcliffe Roundabout, ST 595 685, BHER 24777, OASIS ID

bristola1-56995. A watching brief was carried out during the widening of the existing Whitchurch Lane at Hartcliffe Roundabout, Hengrove and temporary corridor for utilities on neighbouring land. No features or deposits of archaeological significance were observed.

Richard Coe BaRAS

NORTH SOMERSET

CONGRESBURY

Chestnut Farm, High Street, Congresbury, ST 43870 63630. A watching brief carried out ahead of the planned extension to Chestnut Farm revealed no archaeological features or deposits.

Paul Martin & Sam Driscoll, AA

LONG ASHTON

Land at Ashton Park, ST 5530 6900. A total of 22 evaluation trenches was excavated, targeted on areas of potential archaeological significance. No archaeological features which pre-dated the modern period were found, anomalies detected in geophysical and LIDAR survey proving to relate to changes in the underlying geology or natural undulations in the landform.

Steven Sheldon, CA

No. 9, Warren Lane (Warren Lodge), ST 53190 70060. A desk-based assessment of land currently occupied by No. 9, Warren Lane (Warren Lodge), a large residential building, and its associated land and garden was undertaken.

Sarah Newns, AAU

TICKENHAM

Tickenham Church of England Primary School, Clevedon Road, ST 449 718. A desk-based assessment was carried out prior to the proposed construction of an assembly hall and further classrooms. A visit to the study area confirmed an east-west aligned gable ended stone-built structure with a single buttress occupied the same footprint as the tithe barn shown on the 1844 Tithe Survey. Partially buried evidence for one or more further buttresses against the south wall was evident. Inspection of the roof timbers found several major structural rafters and purlins that probably pre-date the late 18th century. It seems likely that parts of a late medieval tithe barn are preserved within the fabric of the present buildings. In view of this there may be associated buried archaeological deposits both within and around the buildings.

David Etheridge, AAU

WESTON-SUPER-MARE

Sea Defence and Flood Alleviation Scheme, Knightstone Road Putting Green, ST 3150 6189. A watching brief was carried out in an area formerly occupied by the Knightstone Road Putting Green during groundworks associated with the sea defence and flood alleviation scheme. The aim was to record all significant archaeological deposits and finds. An established system of drainage and sea defences was found, based on a combination of large ditches and earthworks. These were replaced later in the 19th century by new large-scale masonry structures, the remains of which were located beneath the modern road carriageway.

Amy Willis, AAU

Davan Caravan site, Bristol Road, St Georges, ST 3731 6261. An evaluation involving the excavation of two trial trenches was undertaken. No evidence of any kind was located for the buried Romano-British salt industry or land surface that is known to occur widely across the St George's area.

Andrew Young, AAU

The Garage, Willow Close, St Georges, ST 3758 6264. An evaluation involving the excavation of two trial trenches was undertaken at a height of approximately 6m aOD, on the alluvium of the North Somerset Levels. Modern overburden overlay alluvial clays that were interrupted by a narrow band of distinctive clay soils reflecting a buried land surface. This land surface occurred throughout both trenches at a depth of 5.04 to 5.16m aOD and yielded one sherd of Iron Age/Romano-British pottery and fragments of heat affected clay, interpreted as 'briquettage' and associated with the Iron Age/Romano-British salt-production industry.

Sarah Newns, AAU

YATTON

Sewage Pumping Station at Lower Claverham FTS, Jasmine Lane, ST 44685 66851. A watching brief was undertaken during groundworks for the construction of a new Sewage Pumping Station. The North Somerset Historic Environment Record lists nine relevant archaeological events within the environs of the site, including a medieval lynchet (NSHER. 47363) and a post-medieval pound (NSHER 08860). Although no visible archaeological features/deposits were exposed in the area where topsoil/ploughsoil was stripped, residual Roman and medieval finds recovered during the course of the watching brief are indicative of local activity from these periods.

Cheryl Allum & Richard McConnell, COAS

SOUTH GLOUCESTERSHIRE

BITTON

The Former Intier Works, Golden Valley Mills, Mill Lane, ST 6820 6980, OASIS ID: bristola1-59528. A standing building survey was carried out prior to the demolition of the former paper mill buildings at Golden Valley Mill. The site lay approximately 100m north of Bath Road and High Street in the centre of Bitton village. The building recording was commissioned to comply with English Heritage Level 2 archaeological recording of the existing structures.

The survey of the early buildings at the Golden Valley Mills site revealed a number of features relating to the sequence of development of the complex. These in

conjunction with map and aerial photographic evidence have allowed a basic phasing of the site to be produced. The entire sequence of phasing for these buildings takes less than a hundred years, with some development occurring in a very short space of time, for example phases 1 to 3 occur between 1876 and 1881.

Simon Roper, BaRAS

Land at Oldland Common, ST 6750 7095. Evaluation identified a range of features, including what is presumed to be the alignment of the Roman road between Berkeley Street and Bitton. Other features encountered include ditches, pits, furrows and a palaeochannel. A number of the ditches correspond with field boundaries depicted on the 1843 tithe map. A large earthwork feature, which is probably a fishpond of medieval or post-medieval date, was not investigated.

Mark Brett, CA

CHARFIELD

Land adjacent to St James' Church, Charfield, ST 71900 91100. A desk-based assessment and evaluation was carried out ahead of plans to establish a new cemetery in Charfield. Trenches revealed the outer walls and associated floor surfaces of a large 18th-early 19th-century barn structure, to the WSW of the site.

Paul Martin & Sam Driscoll, AA

COALPIT HEATH

Ram Hill Colliery, off Station Road, ST 6790 8026. Archaeological recording of the study area was undertaken prior to proposed consolidation works to the upstanding walls of the colliery buildings. Ram Hill Colliery was in operation between *c*1830-1860 and is a Scheduled Ancient Monument.

AAU

DYRHAM & HINTON

Dyrham Park, Dyrham, ST 7409 7574. A watching brief was carried out at the back of Dyrham House, during the replacement of a manhole, metal fuel pipes and vent pipes leading to modern fuel tanks. An 18th-century limestone slab chute was identified, running at a 55° angle down into the cellar. The chute became redundant after the conversion to liquid fuel heating.

Paul Martin & Sam Driscol, AA

HANHAM ABBOTS

Land at Hanham Hall, Whittucks Road, Hanham, ST 64540 71626, SGHER 19002, OASIS ID: bristola1-63127. A watching brief commenced in late August. The programme of monitoring, which is expected to last up to 4 years, includes all intrusive ground work in the grounds of Hanham Hall during the demolition of existing redundant hospital buildings and the subsequent construction of 194 residential units and the installation of associated roads and below-ground services. Initial work (August to December) has included monitoring the excavation of several trial pits, the topsoil strip of the 'South Lawn' area, during which several residual sherds of Romano-British and medieval pottery were recovered and the installation of temporary services for the contractors site compound.

Tim Longman, BaRAS

Mount Pleasant Farm, Longwell Green, ST 65350 71350, SGHER 19036, OASIS ID: bristola1-74797. A desk-based assessment was undertaken. The evidence examined suggested that the study area, which included a number of detachments from the parish of Oldland, was mainly used for agricultural purposes since at least medieval times as denoted by what appeared to be vestiges of medieval fields depicted on the Hanham (1842) and Oldland (1843) tithe-commutation maps. The small roadside settlement in the area of the Butcher's Arms (originally the 'Square and Compass Inn') and Mount Pleasant Farm, as depicted on 19th-century maps, is possibly of medieval origin. Mount Pleasant Farm itself appears to have remained small-scale until the 20th century. Boundary stones associated with land-administration/ownership/use depicted on the OS sheets were observed on the study area during the walkover survey. Evidence for coal-extraction in the northern portion of the study area was found. A map dated 1814 depicts a 'Coal Pit' in this area, presumably that known as the 'Lynch Pit'. The study area was considered to have some archaeological potential as informed by the substantive evidence for prehistoric, Roman, medieval and post-medieval activities collected in the immediate environs.

Andrew Townsend, BaRAS

KINGSWOOD

The former Douglas Motorcycle Works, Douglas Road and Douglas House, No. 140 Hanham Road, ST 646 732. A desk-based assessment of an industrial estate in Kingswood was undertaken in response to proposed partial demolition of industrial buildings and the construction of new housing. The study area had been entirely rural until the 1902 OS shows the Douglas Brothers engineering works and foundry had been established. The majority of the buildings date from the first half of the 20th century. The only structure that is feasibly earlier is the former Hoare and Douglas boot and shoe factory in the Oakfield Business Centre, which probably dates from the 1890s.

David Etheridge, AAU

MANGOTSFIELD

Land at Cossham Street, ST 6655 7590. Evaluation comprising 11 trenches found only two undated ditches and two undated pits.

Jonathan Bennett, CA

Pomphrey Hill Sports Pavillion, Emerson's Green, ST 6709 7604. A watching brief was undertaken in an area of open ground immediately to the south of Emerson's Green Playing Fields. Other than an undated cut soil feature in the

north-east corner of the foundation trench excavation, no significant buried archaeological deposits or finds of pre-19th-century date were located.

Sarah Newns, AAU

PILNING & SEVERN BEACH

Gilslake Farm, Station Road, Pilning, ST 5655 8389. A desk-based assessment and evaluation was carried out ahead of plans to construct a single dwelling at Gilslake Farm. No archaeological features or significant deposits were identified. A small amount of residual abraded pottery was identified amongst the spoil, ranging from Romano-British to 18th-century in date. All four trenches revealed a marine alluvial deposit, interpreted as evidence of the inundation of AD 1607.

Paul Martin & Sam Driscoll, AA

Land off Bank Road, Pilning, ST 55921 84988, SGHER 18610, OASIS ID: bristola1-59437. An evaluation was carried out as a condition to planning consent granted for the construction of a replacement village primary school on land at Bank Road.

Nine trenches were excavated, but no features or deposits of archaeological significance other than a section of the track bed of a railway line (Bristol & South Wales Union Railway), and associated drainage ditches, built between Pilning Junction and New Passage in 1858-63 were observed during the evaluation.

Tim Longman, BaRAS

WESTERLEIGH

Henfield Farm, ST 6800 7850. Evaluation identified structural remains and drainage features relating to a nearby building first depicted on 18th-century maps, ditches of former field boundaries and other undated ditches and pits.

Tim Havard, CA

WINTERBOURNE

Tithe Barn, Winterbourne Court Farm, Church Lane, ST 6260 7280. Archaeological recording of the interior floor of the Grade II* listed late medieval tithe barn (SGSMR 6541) located at Winterbourne Court Farm was undertaken. The aim of the project was to clean and record the interior floor of the barn using rectified photography, supplemented by a series of levelled transects and a descriptive summary, to produce a detailed record of its form and current condition.

Lynn Hume, AAU

YATE

Land at Broad Lane, Engine Common, ST 7005 8350 SGHER 18765, OASIS ID: bristola1-58360. A desk-based assessment was carried out on land most recently occupied in part by a garden centre and by a long, narrow open field, south of Broad Lane. A low post-and-barbed-wire fence separates the two, which were part of a field known as 'Goosy Riding' in 1841.

Documentary and cartographic evidence suggests that the land has probably always been farmed for arable and pasture up to the 1980s, when Goose Green Way (B4059) was built across the southern half of the former field. A trawl of the South Gloucestershire Council Historic Environment Record (HER) showed no recorded archaeological sites within the study area, however, the site of a 19th-century coal mine (Yate Colliery [No. 1 Pit] HER 2961) lies on the opposite side (north) of Broad Lane and cartographic evidence shows the presence of coal measures and underground workings beneath the study area. A search of the air-photograph collection at the National Monuments Record Centre (NMRC) in Swindon revealed few features of potential archaeological interest within the study area. A subsequent walk-over survey appeared to confirm the apparent absence of any surface features.

Tim Longman, BaRAS

King Edmund Community School, Yate, ST 7105 8205, SGHER 18973, OASIS ID: bristola1-62858. A desk-based assessment was undertaken. The evidence examined suggested that, prior to its development for the King Edmund School in the 1960s, the study area comprised agricultural land and part of parkland/gardens associated with Stanshawes Court. No evidence for archaeological features of major significance was found within the study area, although what appeared to be the vestiges of medieval ridge-and-furrow cultivation were noted in some areas, and in the immediate environs. Evidence for possible coal-extraction or quarrying activities was also observed adjacent to the southern flank of the study area.

Andrew Townsend, BaRAS

North Road, Yate, ST 69880 83630. A watching brief was carried out due to the presence of a Roman road crossing North Road close to the location of the site. However, no remains of the Roman road or any other archaeological remains/deposits were encountered during the course of archaeological monitoring.

Cheryl Allum & Richard McConnell, COAS