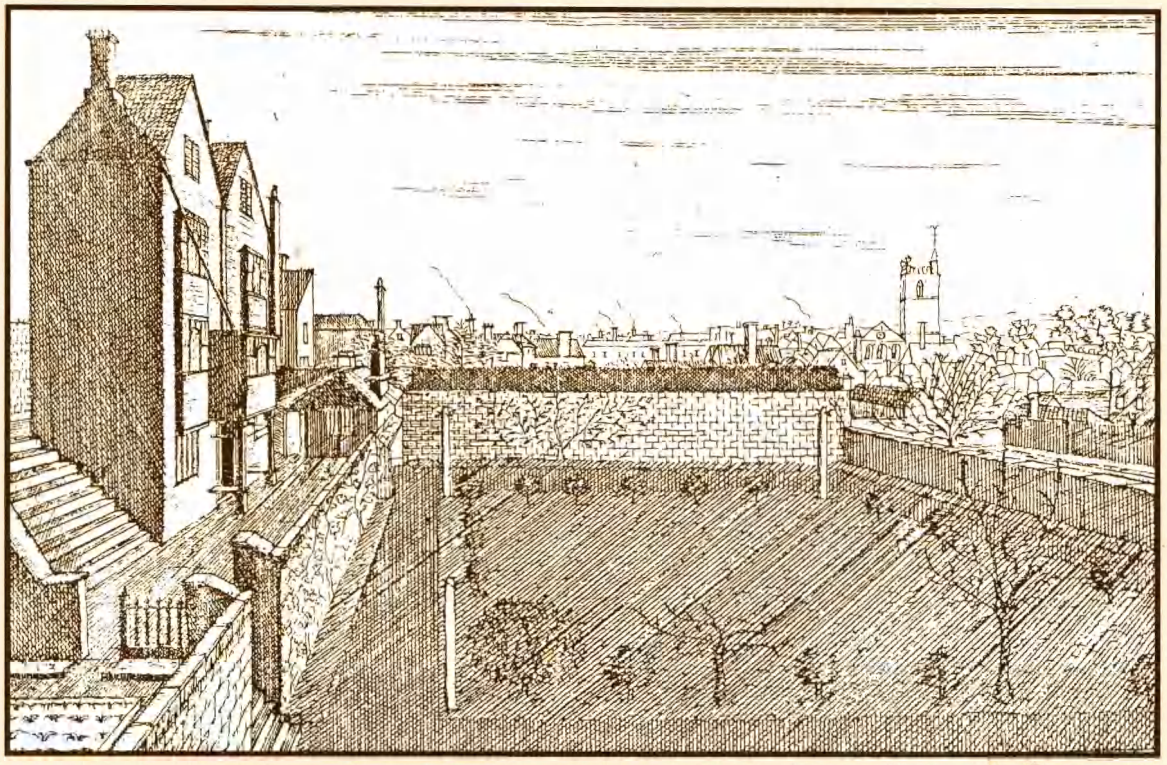
BRISTOL & AVON ARCHAEOLOGY



Volume 17

BRISTOL AND AVON ARCHAEOLOGY 2000

CONTENTS **Page**

Cover: James Stewart's house in Upper Maudlin Street, looking towards the west front of St James' Church, 1753. Reproduced by permission of the Bodleian Library, Oxford. MS Gough Somersetshire 2.

COMMITTEE FOR 2000-2001

OFFICERS

Chairman
Dr P Gardiner
Vice Chairman
Mr R Iles
Secretary
Mr M Gwyther
Meetings Secretary
Mr R Webber
Treasurer and Bulletin Editor
Mr J R Russell
Membership Secretary
Dr G Dorey
Programme Organiser
Mr R Webber
Editor, BAA
Mr B Williams
Editor Special Publications
Prof P J Miller
Publicity Officer
Mr M Baker
Fieldwork Adviser
Mr R Jackson

MEMBERS

Mr I Beckey
Mr L Bingle
Mr J Hunt
Mrs J Newley

CO-OPTED

Dr A J Parker

Typeset by Bristol and Region Archaeological Services.
Design by Ann Linge.
Printed and bound in Great Britain by Antony Rowe Ltd.,
Chippenham, Wiltshire
June, 2002.

ISSN 0263 1091

Membership and Editorial Communications to Bristol and Avon Archaeological Society, c/o Bristol and Region Archaeological Services, St Nicholas Church, St Nicholas Street, Bristol, BS1 1UE.

WATCHING BRIEF EXCAVATIONS AT MOAT FARM, PUCKLECHURCH, SOUTH GLOUCESTERSHIRE, 2000

by Jens Samuel

INTRODUCTION

An archaeological watching brief and small scale excavation of a former farm yard at Moat Farm, Pucklechurch, South Gloucestershire was carried out by Bristol and Region Archaeological Services (BaRAS) on behalf of Westbury Homes (Holdings) Ltd - South West Region. The watching brief was undertaken at a property which was believed to be part of a moated site and was carried out during development of the site for new housing.

Second- to fourth-century Romano-British ceramic evidence (much of which was residual) including a probable box-flue tile compliment masonry evidence recovered from an adjacent 1994 evaluation excavation at Kings Lane, and suggests the proximity of a high-status building, quite possibly a villa. Two gullies were thought to date to the same period. An irregular late Romano-British feature was partly uncovered. It is likely that some of the undated features including a fairly substantial ditch, a pit and another gully can be included with the Romano-British evidence.

Moat House is largely of 17th-century construction with late medieval, 16th-century and later features. The watching brief programme and limited area excavation produced ceramic evidence, including a 14th-century glazed roof-tile, to suggest that the manor was in existence from the 11th or very early 12th century and occupied subsequently though no 15th and no exclusively 16th-century pottery was recovered. This evidence was mostly retrieved from horizontal stratigraphy with other domestic and building refuse. Various, mostly minor post-medieval negative features and masonry were also recorded. It was possible to define two or three major linear components of the so-called moat in the farm yard. No definitely stratified artefacts were retrieved from its basal fill, however a few pottery sherds recovered unstratified may have originated from the latter and might suggest that the moat arms are relatively close in date to the major remodelling of Moat House in the 17th century. The shallow broad profiles of the arms taken with 19th-century cartographic evidence suggest that the complex of features represent rectilinear fishponds.

A Watching Brief and limited Excavation were undertaken by Jens Samuel of BaRAS during July, August and September 2000. Pete Insole, Andrew King, Daniel Hicks and Adrian Parry assisted at various times. Illustrations are by Ann Linge.

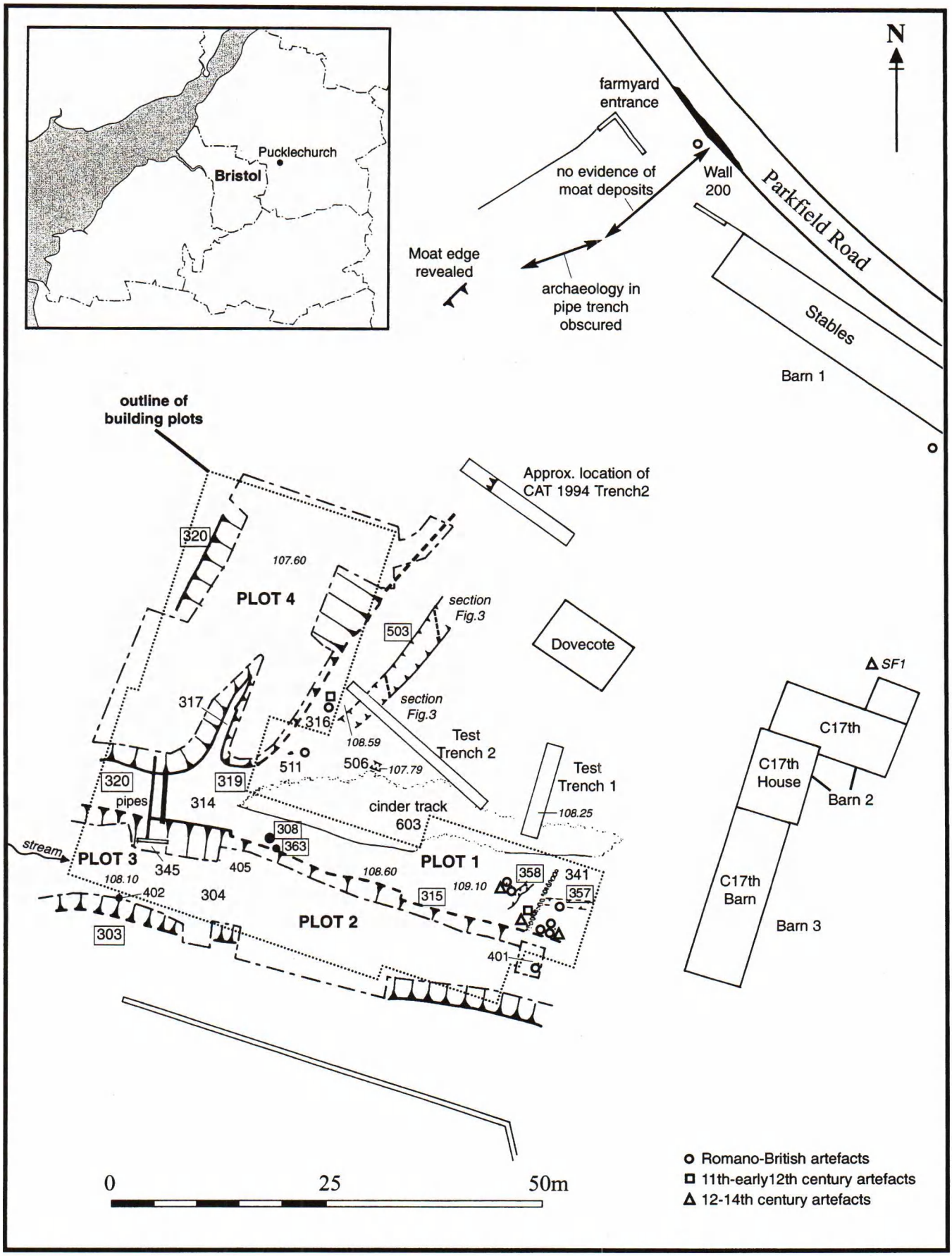
The project archive will be deposited with Bristol City Museum and Art Gallery with the Accession Number BRSMG 2000.38.

Plate 1 View of the site from the north.

THE SITE; LOCATION, HISTORICAL BACKGROUND AND PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

The site is centred on NGR ST 6975 7675 (Fig.1) and lies on ground rising from north to south at approximately 106.63m to 109.75m above Ordnance Datum (aOD). Ancillary buildings, originally part of Moat House Farm (formerly the Great House BaRAS 2000, 2) are distributed around the eastern periphery of the site (Plate 1). The site of the watching brief is located on the north-western outskirts of the village of Pucklechurch, South Gloucestershire, 0.15km from the parish church. The underlying geology of the site is White Lias Limestone interbedded with Lias clays.

Moat House in its earlier guise as the Great House is recorded by the Tithe Map and Apportionment of 1843 and by a 1789 survey of Ashton Court Estate (ibid). A plan and sale particulars (GRO SL143) of The Great House in 1864 refers to it as an ancient mansion, formerly a capital messuage called Pucklechurch Hall . By its singularly locatable position it can only be that un-named house (Fig. 8) in the ownership of T. Smith Esquire on the 1777 Isaac Taylor county map. (Bris. & Gloucs. Arch. Soc. 1961, 14). An indenture dated the 24th of May 1761 in an abstract of titles of the Dowager Lady Elizabeth Smyth (BRO AC 36074 (11)) lists 'And of All that the Capital Messuage or Mansion House in Pucklechurch in the said County' amongst her estates. It is possible, though unprovable, that this is a further reference to the Moat House as it was in the



Figs.1 & 2 *Site location plan and the area of the 2000 Watching Brief.*

possession of Sir John Smyth in 1801 and by 1815 (?another) Dowager Lady Smyth (Erskine 1999, 7). A photographic copy of a painting probably of the 18th century, in the possession of the current owner, Mrs Romilly Brown, purports to refer to the house as 'Pucklechurch Hall' (Plate 2) and shows a large house of seven bays fronted by a significant water feature. A change in the roofline and different window sizes on the frontage between left and right, indicate that the house at this date was at least in two building phases. Seven bays are shown on an estate map of 1815 showing land owned by lady Smyth (ibid). No references to the house earlier than the later 18th century were found at the Bristol or Gloucestershire Record Offices. No references to 'Great House' or 'Pucklechurch Hall', Pucklechurch were found in Smith's The Place-Names of Gloucestershire (1964) or Bigland's monumental collections of Gloucestershire (Frith 1989-95). No unequivocal references were found in Atkyns (1712) or Rudder (1779).

In general terms some of the present facade of Moat House displays 17th-century architectural characteristics (Plate 3). An architectural survey of Moat House by Linda Hall (1983, 52, Fig.15, 77, 36) identified mid- 17th-century Pumkin Stop and Scroll type interior doorframe mouldings, a 16th-century plaster ceiling and the remnants of a mostly destroyed and rebuilt extended-collar roof with straight principal rafters. One truss and a pair of windbraces survive in what she identifies as probably a solar wing of late medieval date. Examples of this type include Wandswell Court, Hamfallow, c.AD1460, Little Sodbury Manor, Little Sodbury, c.AD1450 and the Great Hall of Berkeley Castle, c.AD1340 (ibid). A recent building survey by BaRAS (BaRAS ibid, 6) found that; the long barn known as 'Barn 3' was probably contemporary with the 17th-century phase of Moat House, those outbuildings known as 'Barn 2' represented a dwelling house of the mid to late 17th century and another building of the late 17th century (Fig.2).

A 1994 archaeological evaluation, comprising eight test trenches, on the site of the BaRAS Watching Brief Programme, by Cotswold Archaeological Trust (CAT) exposed some 1st and 2nd century AD Romano-British activity to the southeast of the stables and barn known as Barn 1, in CAT Trench 7 (Thomas 1994, 3, 6-7). No later deposits or moat components were revealed by this evaluation.

A further CAT evaluation and Avon Archaeological Unit (AAU) watching brief of land immediately to the south (ST 6965 7665) of the 1994 Moat Farm evaluation at Kings Lane (Bateman 1994, 2-3, Young 1998, 5-6) produced highly significant evidence for a high status Romano-British settlement in the vicinity of that site. This evidence was in the form of the following artefacts; a dwarf column base, a fragment of bow fronted slab table and box flue tile and probable roof tile fragments. The deposition of this material appeared to date to the late 4th century or later (a coin of Gratian AD367 - 383), however 2nd and 3rd/4th century pottery was recovered from a number of partly related ditches and gullies. The junction of some of these linear

Plate 2 Postcard copy of ?18th-century painting of Pucklechurch Hall (Moat House Farm).

features indicated that land had been divided into at least five parcels - possibly fields or gardens attached to a settlement. Others were in a different phase or phases to the conjoined features.

A geophysical survey of land south of Moat House in the Tennis Court area suggested the presence of oval and curvilinear features resembling gullies or small ditches (Erskine 1999, Appendix).

THE 2000 WATCHING BRIEF

Methodology

Initially archaeological features and deposits could only be recorded in a piecemeal fashion dictated by the progress and location of subcontractor groundbreaking. When a potentially significant group of deposits were identified in the eastern part of Plot 1 (Fig.2) a small area excavation was undertaken to record their extent and importance. A certain amount of palaeoenvironmental sampling was carried out during the watching brief. After consultation with Vanessa Straker, the English Heritage Regional Adviser for Archaeological Sciences, it was determined that meaningful results could not be produced from the samples.

Archaeological Evidence

Undated Evidence

During watching brief operations to the north of Plot 2 two linear features and a possible pit were recorded when a series of service trenches were mechanically excavated (Fig.2). Feature 512 was recorded in a trench section only (Fig.3), but seems to have represented an insubstantial pit (or possibly a ditch terminal) with gently sloping sides. It contained a blue - black clay with 20-30% charcoal flecks and lumps and a few fragments of limestone (deposit 511). No artefacts were recovered from the latter pit fill. Pit 512 seems to have been cut through a layer of mottled grey silty clay (context 514), 0.15m thick into substratum 604. Layer 514 may have represented the eastern edge of an extensive layer; context 316 described under Period II, though this

Plate 3 Moat House from the south-east.

was not definitely established. Substratum 604 was recorded as a mottled yellow grey clay greater than 0.51m thick. Layer 514 and pit fill 511 were sealed by a fairly thick yellowish brown silty clay (layer 317), which was also encountered during the ground reduction of Plot 4 (see below). Silty clay 317 and pit fill 511 were both cut by a recent disturbance; cut 607, which contained a multicoloured clay admixture. Layer 317 and substratum 604 both overlaid another natural clay greater than 0.70m thick (layer 513). The latter was a homogeneous blue clay recorded in the north-eastern part of the above-mentioned service trench (Fig.3). Layer 513 was in turn overlain by a blue clay (layer 504), only distinguishable from the former by its high charcoal content. Layer 504 was 0.25 -0.30m thick and 18th-century pottery, animal bone, a brick/tile fragment and a residual, probable Romano-British box-flue tile fragment were recovered. The stratigraphy in this trench was sealed by made-up ground recently deposited by subcontractors, which would suggest that layer 504 had been recently marginally truncated.

The two linear features mentioned above were recorded to the north and east of pit 511. Feature 503 was recorded diagonally across two pipe-trenches and at the junction of two more. It represented a substantial ditch at least 16.5m long and oriented NE-SW. It was recorded as approximately 3.5m wide in the north and narrowed to 2.2m in the central section but maintained a relatively constant depth of greater than 0.8 to 0.9m with a steepening 'V' shaped profile as it extended south (Fig.3). Ditch 503 was cut into blueish white clay interbedded with Lias limestone (substratum 516) and was filled with homogeneous blue clay with occasional charcoal flecks (ditch fill 501). Blue clay fill 501 was indistinguishable from clay 515 which lay along the surface of substratum 516 external to ditch 503 in a layer 0.15 to 0.25m thick. Blue clay 515 must be considered the same as, or similar to clay 504 described above. However no artefacts were recovered from the former layer or from ditch fill 501. The top of ditch 503 was recorded in the southern section at an elevation of c.107.72m aOD. A test trench (No.2) excavated under supervision, was only excavated to the top of clay 515; 108.09 - 108.14m aOD and therefore did not reveal ditch 503 (Fig.2). Clay 515/ditch fill 501 was overlain by a mottled olive brown clay layer (context 502) with occasional large inclusions of red Pennant sandstone fragments. Layer 502 appeared to represent shallow ground make-up deposited within the confines of the modern or late post-medieval farmyard. This layer was cut by a modern plastic pipe-trench (feature 510). A thin layer of very recently deposited made-up ground sealed layer 502.

Feature 506 was found to be a truncated gully oriented slightly less than at right angles to ditch 503 (Fig.2). Gully 506 was test-excavated and found to be only 0.17m deep, but with a flattened concave base and at least one near vertical side. It was filled by a homogeneous blue grey clay (context 505), from which animal bone was recovered. This gully was cut into blueish white clay substratum and recorded for a length of less than 1m across a pipe-trench.

Another undated feature (404) was recorded in section between Plots 2 and 3 (Fig.2). The slightly irregular angled nature of its profile makes interpretation difficult. Oyster

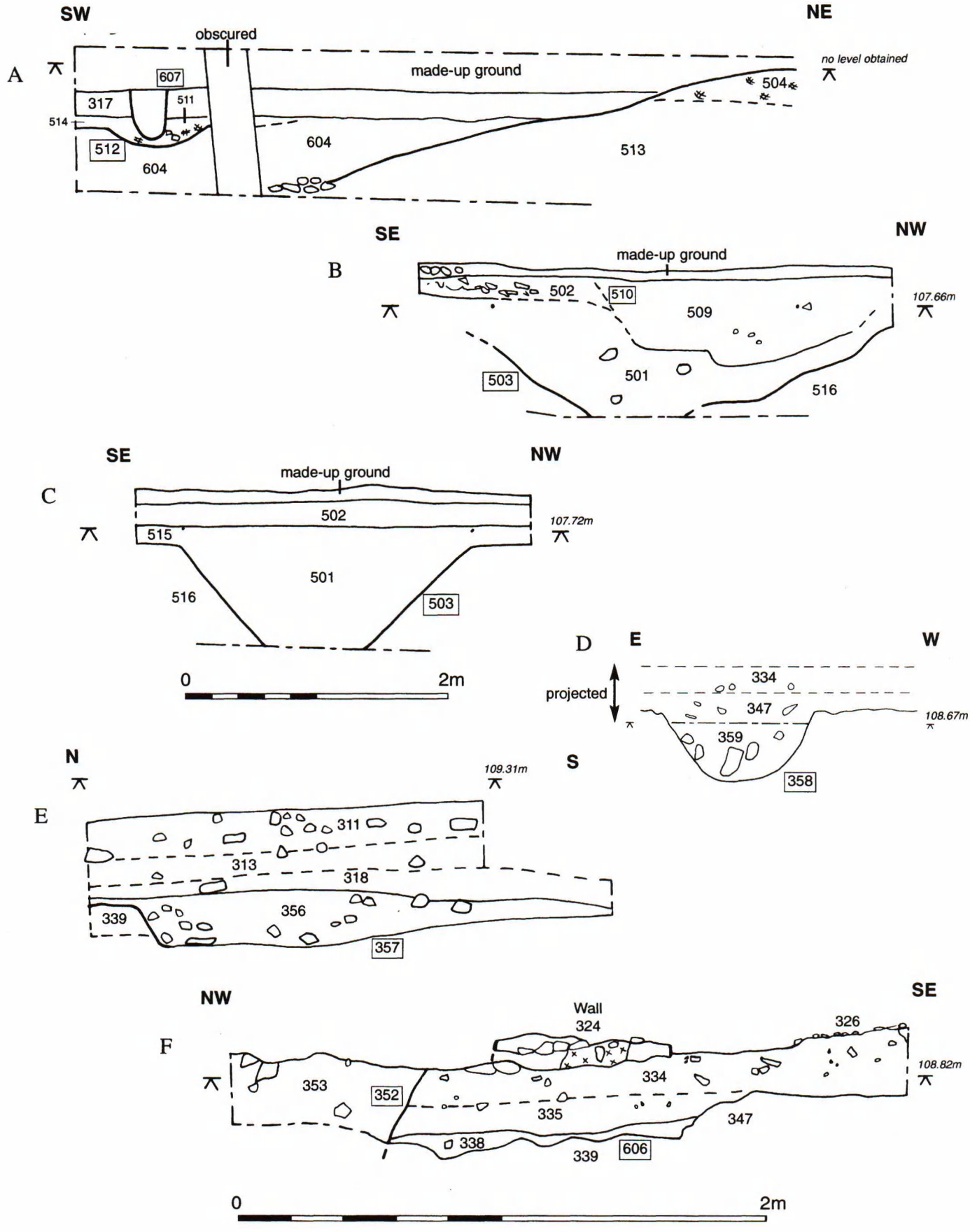


Fig.3 Section drawings.

shells were recovered from the grey silty clay which filled the feature (context 405), possibly indicating that 404 represented a pit. Feature 404 appeared to cut a thin mottled layer (context 406) at its southern extremity, with a character not unlike layer 514 described below. Feature 404 was also cut into yellowish green clay substratum (context 408). The latter underlaid layer 406. Both deposit 405 and layer 406 were sealed by a heavily oxidised yellowish green clay (context 407).

PERIOD I; Romano-British Activity

The earliest datable evidence identified during the 2000 Watching Brief comprised stratified and residual Romano-British ceramic artefacts. Mostly pottery sherds, this evidence dated from the 2nd to 4th centuries AD. It was recovered from three to five contexts which may be considered to be Romano-British; deposits 335, 342, 347 and possibly 338 and 356. These deposits were all uncovered during the area excavation of Plot 1. However evidence in the form of residual ceramic sherds were recovered from deposits 310, 311, 313, 316, 318, 321, 322, 334, 401, 504 & 601. Some of these were located to the north and west of Plot 1.

As mentioned a small area excavation was carried out in the north eastern part of Plot 1. Four trench - sondages were hand and machine excavated to determine archaeological stratigraphy (Figs.4-5). In Sondage 4, the surface of Lias Limestone and mottled olive clay substrata (context 339) was recorded at 108.76 m to 108.67m aOD south to north. A fairly regular, rather sinuous gully (feature 358) was cut into the substratum and recorded extending SW - NE for at least 4.9m. Gully 358 had fairly steep concave sides merging to a similar base and was filled with a blue clay with Lias pebbles; deposit 359, 0.22m thick (Fig.3). No artefacts were recovered from a section excavated through this fill. Gully fill 359 could not be distinguished from an identical clay overlying and extending beyond the edges of gully 358, and laying on the surface of the substratum. This layer was designated as context 347 and was 0.23m or less thick. Animal bone, a bovid horn-core, a winkle shell, a box - flue tile and an un-datable Romano-British pottery sherd were recovered from clay 347. There may be a slight question as to the definite period of this layer as texturally it appeared virtually indistinguishable from layer 318 described below. Romano-British pottery was retrieved from layer 318 but it was indisputably residual in a medieval context. Layer 347 appeared however to be cut by a genuine Romano-British feature. An irregular-based depression (feature 606) was revealed in the north end of the sondage (Figs.3 & 5). The northern extent of 606 could not be determined in this sondage as it was cut by a much later feature; cut 352. Feature 606 was cut through blue grey clay

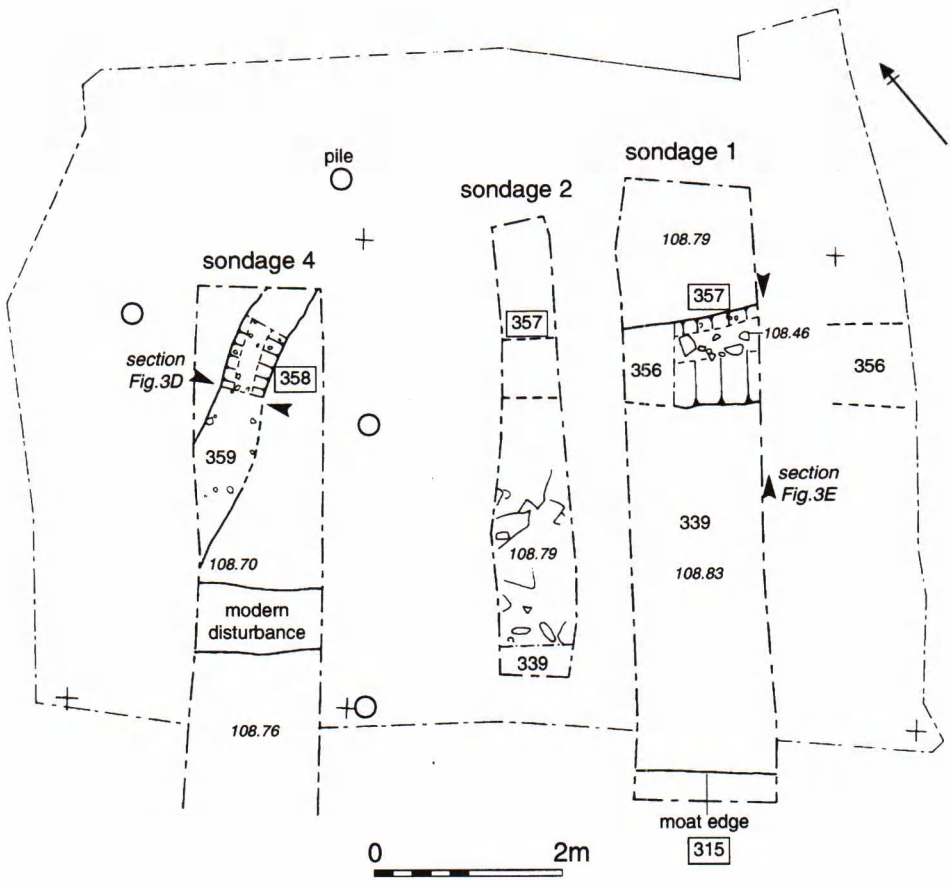


Fig.4 Plan of Plot 1 (East): earliest features.

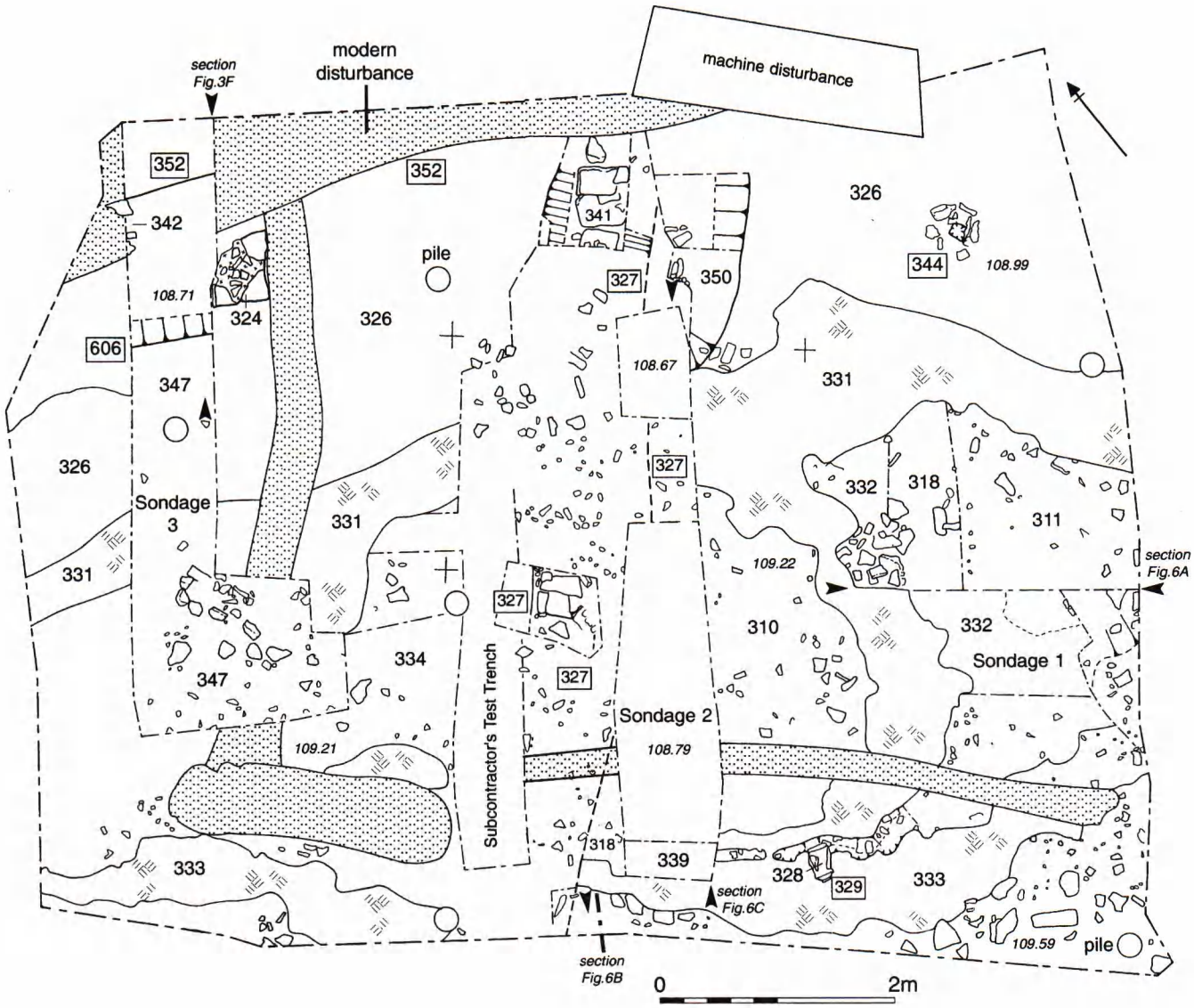


Fig.5 Plan of Plot 1 (East): later features.

347 and substrata 339. An olive yellow clay (deposit 338) with limestone pebbles lay along the base. Fragments of possible Romano-British tile were recovered from deposit 338. The latter deposit was sealed by a thicker layer (context 335) of dark grey clay with rare charcoal flecks. Clay 335 filled most of the depression; animal bone, a tile fragment and 2nd century pottery were recovered when the context was sectioned. A mortaria sherd of the mid- 3rd to 4th century AD retrieved from a small blue clay inclusion (context 342) in clay 335, recorded in the east facing section of the sondage should however determine the date of the latter context. The function of feature 606 could not be determined within the confines of the sondage.

In Sondage 1 the surface of substrata 339 was recorded at 108.83m to 108.79m aOD south to north. A heavily truncated gully or ditch - base (feature 357) was revealed in the bottom of Sondages 1 and 2 (Fig.4). This feature was cut into substrata 339 and was not greater than 0.16m deep. When gully fill 356 was removed from 357, the feature proved to have moderately steep northern sides, a flat base and very gentle southern sides (Fig.3). Ground breaking subsequent to the area excavation indicated that it extended at least 4.5m in a NW - SE direction. Gully fill 356 was an olive grey clay with some Lias limestone and Pennant sandstone inclusions and extended further south than the edge of the gully. Undated brick or tile fragments were recovered from fill 356 from within the area of gully 357. When compared to the spatial distribution of other linear features described below, those known from the adjacent CAT/AAU site and due to the horizontal truncation of this feature, it is possible that gully 357 should also be included with the Roman-British evidence. The same might be

tentatively suggested for ditch 503 and gully 506 described below.

As intensive area investigation was not carried out over much of the area of the Watching Brief the mostly residual nature of the evidence cannot be used to support a notion that potential Romano-British stratigraphy was unlikely to exist west of CAT Trench 7. The BaRAS Watching Brief did identify such stratigraphy, though of a very limited nature, at Plot 1, and taken with the distribution of ceramic evidence would tend to support a thesis that some Romano-British activity occurred either patchily or more intensively over the rest of site (Fig.2).

PERIOD II; Late Saxon - Early Norman Evidence: Plots 4 & 1

Pottery from this period is represented by North Avon Gritty Ware and to date cannot be more closely dated than 11th to very early 12th century (Rod Burchill pers. comm.). One sherd of this ware and a sherd of undated Roman-British pottery were recovered from deposit 316 (Fig.2). This deposit was an extensive humic and mottled grey/tan silty clay layer less than c.0.11m thick. Layer 316 was recorded in the southeastern corner of Plot 4 at 107.57m aOD and was cut by and delimited in the west by N-S moat arm 319. This produced an extent of deposit 3.5 x 12.5 x 13m in area, exposed in the plot. Layer 316 was sealed by a yellowish brown very silty clay 0.2m or less thick (Deposit 317). The latter context was recorded overlying, to the west of, and to the east of layer 316 (Figs.2 & 3) and clearly represented a major silting event within a depression ostensibly identified as topographic. This layer and its stratigraphic relationships are discussed under 'Undated Evidence'. Animal bone was recorded from silty clay 317 and the layer had been cut by moat/pond arms 319, 320 and possibly 303 (see below), where it was designated context 314. Adjacent test excavations of layer 316 recovered the above-mentioned sherds and indicated the shallow and quite organic nature of the deposit. Layer 316 probably represented an incident where environmental conditions were favourable for marsh vegetation to grow. A stream still flowed into the site in the southwest corner of Plot 3. The North Avon Gritty Ware could be said to date layer 316, however the meagre nature of the artefactual assemblage from this deposit dictates that conclusive dating must remain open to question.

Another sherd of North Avon Gritty Ware was recovered from the fill (context 323) of a much later feature (327) located in Sondage 2 of Plot 1 (Fig.5). Three more residual sherds of the same type were retrieved from an early to mid 12th-century layer (context 318) and a 14th-century layer (context 310) revealed in Sondages 1 and 2 of the same plot (see below). Two more sherds were recovered unstratified when the latest farmyard deposit (context 322) was removed mechanically from Plot 1, at the commencement of the area excavation. North Avon Gritty Wares recovered from the Watching Brief were unabraded making it unlikely they were scattered as a result of manuring. The possible implication is that primary usage of the vessels was relatively close to where they were found.

12th to 14th Century Evidence: Plot 1

Sondages 1, 2 and 3 of Plot 1 revealed a series of layers overlying substratum 339. The earliest layer recorded in Sondage 3; layer 347, described above, ostensibly represented a Romano-British context but was texturally indistinguishable from the earliest archaeological layer (318) recorded in the other sondages (Fig.6). This discrepancy could not be resolved without full area excavation within this area of the plot and was not obvious until after the area excavation had finished and post-excavation analysis had begun. Residual Romano-British pottery was recovered from the latter blue clay but other pottery retrieved probably dates layer 318 in Sondages 1 and 2 to the early 12th century. The other finds recovered from this layer; brick/tile and ?fired clay fragments, oyster shell, cattle and other animal bones and a canid jaw-bone, if considered with the pottery sherds retrieved, indicate a domestic refuse assemblage of some diversity. The characteristics of layer 318 are not inconsistent with identification as a farmyard-deposit. Patchy spreads of limestone rubble with yellow clay (context 332) overlaid layer 318. A mottled yellow - blue clay (context 313) overlaid layers 318 and 332 in Sondage 1. Residual Romano-British sherds and tile fragments and 14th-century pottery were recovered from layer 313. This layer in turn was overlain by a mottled yellowish grey clay; context 311, from which 12th/13th-century, 14th-century and more residual Romano-British, pottery was recovered. Animal bone and an intrusive modern tile fragment were also recovered.

A single fairly extensive horizontal layer (context 310) overlaid layer 318 in Sondage 2 (Fig.6, Plate 4). A high percentage of residual Romano-British sherds along with 11th - early 12th, 12th, 13th and 14th-century pottery sherds and a 14th-century Bristol type glazed roof-tile fragment were recovered from layer 310. Animal bone, ?brick fragments and slag were also retrieved. Extensive spreads of yellow clay with limestone rubble (contexts 326 & 331), some forming curvilinear shapes in plan, were distributed over much of the area investigated at Plot 1. Mostly these were found to overlay layers 311 and 310, though there were occasions when the extremities of the latter deposits appeared to overly the rubble spreads. This could not be satisfactorily resolved due to the similarity of some deposits in this area. When first revealed by controlled stripping of a relatively modern dark grey clay loam farmyard deposit (context 322), curvilinear rubble spreads 331 and 333 somewhat resembled the foundations of one or more structures (Fig.5). Sectioning by sondages tended to negate this assumption (Fig.6). Most of the medieval layers recorded at Plot 1, with the probable exception of 318 could be interpreted as representing spreads or dump deposits which probably originated in another part of the site. Sherds of Romano-British Black Burnished ware, North Avon Gritty ware and other pottery dating between the 12th and

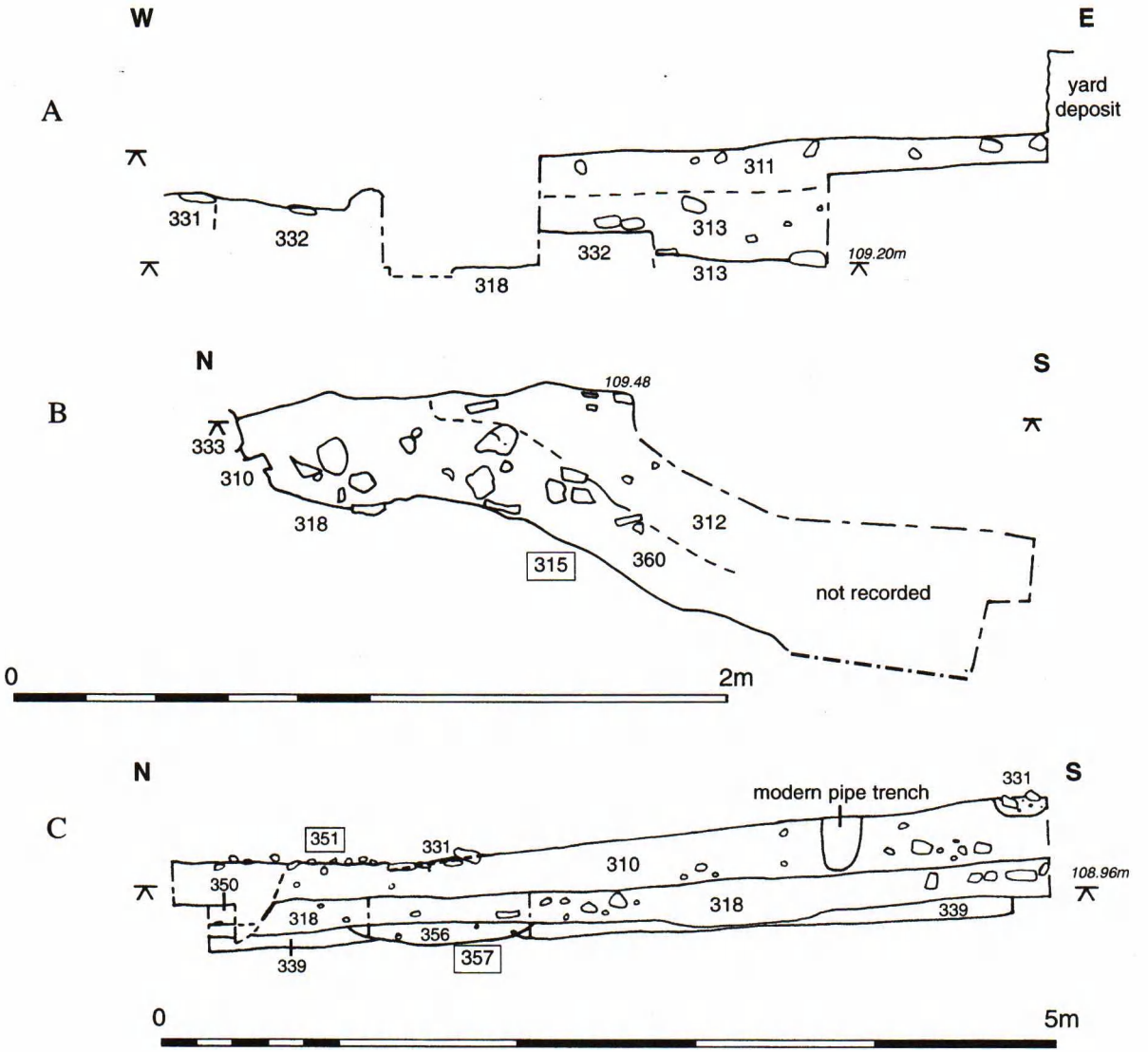


Fig.6 Section drawings of Plot 1 (East).

Plate 4 West-facing section of Sondage 2 with layers 310, 318 and 339.

19th century pottery, along with bottle glass, ferrous nails, brick/tile fragments, slag and oyster shells were retrieved unstratified when layer 322 was removed.

Two deposits, which might be tenuously dated to the medieval period or be allocated an earlier post-medieval date, on the basis of stratigraphical relationships were recorded at Plots 2 and 3 (Fig.2). Due to its similarity to the surrounding substratum, deposit 306 was only noted when Plot 2 was reduced to 108.60m aOD by mechanical slew. The results of a test excavation indicated that this deposit probably represented the base of a pitfill. Deposit 306 was recorded as a mottled blueish yellow clay from which winkle shells were recovered. This deposit filled the base of a subcircular pit (context 363) which must have had a diameter greater than 0.75m and which was cut into yellowish green clay substratum 410. Pit 363 appeared to have a rounded concave base but was not half sectioned. From its location, pit 363 was almost certainly truncated by the northern edge of E - W moat/pond arm 303 (see below). The other deposit which must also have been truncated by the southern edge of this arm was deposit 402. The latter was a dark greyish brown clay loam with frequent grit from which oyster and snail shells were recovered. It filled a pit (context 403) recorded in the section of a pipe trench. Pit 403 was c.0.4m deep with a diameter of 0.45m, had variably sloping sides, a flattened 'U' shaped base and was cut into substratum 410.

PERIOD III; 16th-17th century Evidence and The Moat/Fishpond Arms

Two features can be confidently allocated to the 17th century. Pit 308, recorded in proximity to pit 363 (Fig.2) was identified in a similar fashion as the latter feature when ground was reduced at Plot 2. Pit 308 was subcircular in plan, with a diameter of c.1m and was greater than c.0.15m deep. Again only the base was recorded in a test excavation, but this appeared to have steep sides, a slightly concave bottom and was cut into substratum 410 (Plate 6). Pit base 308 was filled with a plastic yellowish blue clay with rare charcoal flecks (context 305). Several sherds of a 17th-century kitchen bowl were recovered from pit fill 305. Though located near the northern edge of moat arm 303 it was not established whether pit 308 was cut by that arm. Pit 308 is likely to have represented the remains of a rubbish pit. At Plot 1 a shallow pit or gully terminal 0.14m deep (context 351), was partly recorded by the area excavation (Fig. 5). This feature had gently sloping sides and a flat base and was apparently cut through rubble layer 326 and definitely through layer 310 into layer 318. It was filled with a brown clay with occasional charcoal flecks (context 350) from which sherds of a 17th-century jug were recovered. Feature 351 was cut by the construction trench (context 327) of an 18th-century drain.

During the ground reduction of Plots 1 to 4 it was possible to partly record in plan, the major linear components or arms of the so-called moat in the farmyard at Moat Farm (Fig.2).

Plate 5 Pit 308 with ceramics.

The east - west arm (feature 303/315) was sealed by multi-coloured made-up ground (layer 307) in the region of 0.5m -1m thick. This linear arm extended across the site for 58.5m, was at least 12m wide and had a depth of around 1.3m. Its western extremity began to turn to the south as it extended beyond the site edge (Fig.2), and it was in this area that a stream was noted to flow into the middle of the arm cut. In profile, arm 303/315 had long gently sloping sides and a rather flat broad base (Plate 6, Fig.6). A complete section of the feature was never exposed at the one time. Arm 303/315 was noted to cut substrata 516 and 339 and layer 318. It almost certainly cut other archaeological layers already discussed in the preceding paragraphs but the speed of ground-breaking combined with the plethora of deposit colours and textures encountered on site, often made definite deposit identification and recording difficult. The basal fill (deposit 309) of arm 303/315 was exposed in Plot 2 and found to be approximately 0.7m -0.9m thick. It consisted of a very silty blue-black clay with an organic content approaching perhaps 30%. During subcontractor disturbance of Plot 2 two large pottery sherds of the late 16th/17th and 17th centuries were recovered unstratified. It is likely they originated from fill 309. These were the only pre-19th-century artefacts recovered from moat/fishpond deposits. Additionally, one of the sherds was one of only three possible indications of 16th-century occupation recovered during the watching brief. The other two were similarly dated sherds recovered unstratified at Plot 1. One of the latest moat/pond fills recorded in Plot 2 was deposit 302. This dark grey and humic clay loam lay along the top of the southern edge of arm 303. Animal bone and 19th-century pottery were recovered from it.

The eastern part of moat/pond 303 in the area of Plot 1 was designated context 315. Two of the latest moat/pond fills recorded in this area were assigned contexts 400 and 401. The latter was sealed by the former and consisted of loose black organic matter and loam. Animal bone, bottle glass, 19th-century pottery and residual Romano-British

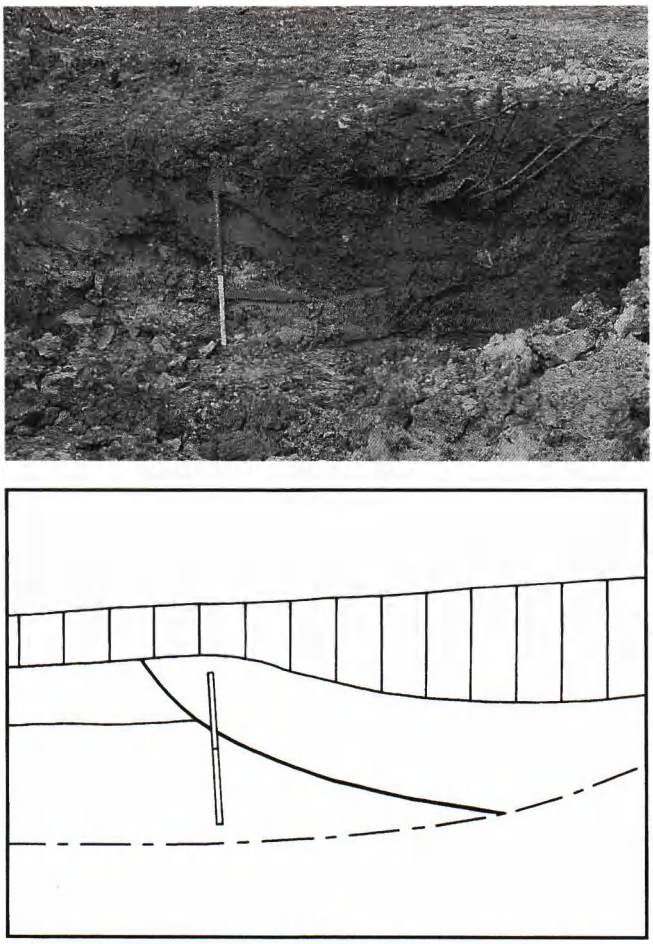


Plate 6 Northern edge of pond arm, from the west and interpretation.

pottery was retrieved from fill 401. Modern pottery and plastic were amongst the finds recovered from fill 400, which was found to be 0.5m thick. A controlled section was excavated of the top of the southern edge of arm 315 (Fig.6). This revealed a similarly gently sloping ditch side to the machine cut sections. A layer of redeposited blue clay with medium limestone fragments and olive yellow clay inclusions (deposit 360) was found to lay along this side. The latter was overlain by dark grey clay loam (deposit 312), from which three sherds of 18th-century pottery were recovered. As mentioned above, made-up ground 307 sealed moat/pond 303/315 and its fills.

During the reduction of Plots 3 and 4 a NE - SW moat/pond arm or arms was recorded extending northwards for 44m (Fig.2). This seemed to comprise two parallel components, cuts 319 and 320. Feature 319 was the narrower (c.7m) of the two and appeared to represent the earlier of the pair. It consisted of a linear ditch with a partly squared off terminal. Arm 319 was recorded cutting layers 316 and 314/317, though little depth or profile of this feature was observed as the plots were not reduced below 107.60m aOD. Its shape in plan was gauged from the latest multi-coloured clay (307) re-deposited in the top of the feature. Arm 319 appeared to have been cut by broader (20m) arm 320, which was similarly oriented. The latter moat/pond arm had very gently sloping sides and a flat base, where observed, comparable to arm 303/315. At no time was a cross section fully exposed during plot reduction or trenching for ground beams but it is clear that arm 320 cut the same layers as arm 319 and its top was filled with the same re-deposited clay. The basal fill of arm 320 was virtually identical to basal fill 309. A small length of the northwestern edge of arm 320 was recorded in a pipe-trench. No evidence of that arm was present at the site entrance for a distance of 15m SW of Parkfield Road (Fig.2).

The date and function of the moat/pond arms and their relationship to similar presumed water features to the south of the Watching Brief is discussed in the Conclusion.

Other Post-Medieval Activity

A number of late features were recorded at Plot 1 (Figs.5 & 6). The construction trench (cut 327) for a stone-lined drain (structure 341) was cut through pit 351, deposits 331, 310, 318, gully 357 and substratum 339. Drain 341 was constructed of Lias limestone uprights and capstones. The base of the drain was not fully investigated, though a capstone was removed. It was not established what stratigraphic relationship drain 341 had with moat/pond arm 315. Eighteenth-century and residual twelfth-century pottery was recovered from the earliest of the packing fills (deposit 340/508) of the drain trench 327. Animal dentition, slag, fired clay, residual North Avon Gritty Ware and 18th-century pottery were recovered from deposit 321/323, the latest of the drain trench fills.

Three stratigraphically late, though not closely datable, features were evidenced at Plot 1. Structure 324 was a single course of limestone masonry bonded with pinkish lime mortar. It was laid in the shape of a rectangle on to the surface of layer 334 without a construction cut surviving at that level (Fig.5). Approximately 80% of the lowest course of the structure appeared to survive and it probably represented a post-pad or, more likely a pillar base. Structure 324 was partly or wholly intact in the late 19th or early 20th century as lead pipe laying appeared to respect it. To the east of this feature an extensive spread of limestone (deposit 326) may have represented a deliberately laid hard-core. Some of this limestone had been re-used as posthole packing (context 346) for a post setting (cut 344) let into spread 326 (Fig. 5). A post 0.23m x 0.10m thick could have been accommodated by packing 346. Postpipe fill 343 (a dark grey silty clay) was at least 0.30m deep, and not fully excavated. A similar though smaller posthole (cut 329), also apparently packed for a rectangular post, was recorded to the south of posthole 344, cut into limestone and clay dump 333 (Fig. 5). Considerable modern disturbance had occurred at Plot 1 including a large linear feature (cut 352) which cut through deposits 334 and 335, and Romano-British feature 606 (Fig.3).

Elsewhere during the Watching Brief lengths of masonry and a trackway were recorded. Wall 345 consisted of limestone blocks bonded with yellowish white lime mortar

and was erected in a construction trench let into various moat/pond deposits on the northern edge of arm 303 (Fig.2). Wall 345 survived to over 1m in height and supported the ends of two water pipes which led from arm 303 to moat/pond 320. This masonry and its accompanying pipes are unlikely to have been earlier than the 19th or early 20th century. A cinder and rubble trackway (deposit 603) was recorded extending for at least 40m in an E -W orientation and led from the direction of the west door in Barn 3 towards the gap between moat/ponds 303 and 320. This was sealed by dark grey `farmyard' loam 362 and laid on the surface of blue clay 336. The latter was texturally identical to blue clays 504 and 318. A sherd of 18th-century pottery was recovered from clay 336.

A length of wall (wall 200) at least 9m long was revealed during ground reduction for a road at the present farmyard entrance. This wall only survived in the form of white lias limestone footings in one or two courses (Plate 7) and was not bonded with mortar. Only part of the width of Wall 200 was revealed and it was found to eventually run under Parkfield Road. It was found to be layed on mottled grey clay substrate 203. A construction cut was not recorded but this could be attributed to the nature of subcontractor ground breaking. A thin layer of clay (201) with wall fragments, brick fragments and rare lime mortar sealed wall footings 200. Further clay (202) and gravel hardcore sealed clay 201 and provided road foundations for modern tarmac. Wall 200 was recorded at 0.7m below the existing tarmac surface and was oriented in such a way (NW - SE) to suggest that it probably ran along the edge of a lane which is presently known as Parkfield Road. Lime mortar recorded from the remains of demolition sealing this wall; layer 201, though certainly not conclusive suggests that wall 200 could have been of post-medieval date. Its location indicates that a yard entrance did not exist at the wall date and that it was almost certainly a continuation of the estate pale. Seven sherds of 19th-century pottery and a sherd of Romano-British Misc. pottery were recovered from the latest yard deposit (layer 601) to the southwest of wall 200.

Plate 7 Wall 200, from the south.

DISCUSSION AND CONCLUSIONS

Romano-British

The 2000 watching brief programme at Moat Farm, Pucklechurch taken together with the two CAT evaluations and the AAU watching brief, despite the limited nature of these archaeological investigations, probably indicate that a Romano-British estate centre, in all probability a variety of villa existed in close vicinity to these operations. The masonry fragments discovered in 1994 and the recovery of box-flue tile fragments are at present the strongest indicator of status for this site; a (later, at least) religious function seems less likely due to the presence of these tiles. This evidence should be considered in conjunction with the adjacent field systems indicated by ditches and gullies in both of the areas investigated. In combination the evidence produces an overall picture which hints at the nature of the settlement and its agricultural exploitation, though admittedly the ditch and gullies recorded during the 2000 watching brief can only, for the most part, be assumed to date from the Romano-British period. As far as more refined dating goes for this period all that can be said is that 2nd century or 1st- and 2nd-century pottery was recovered from three investigations, much or all of it residual in the case of the 2000 watching brief. Agricultural, probably domestic (and not readily identifiable activity) can be assigned to these two centuries. It is likely that either or both the 3rd and 4th century ceramic evidence was contemporary with the putative villa proposed above for this site, though an earlier inception of that status is certainly not impossible. It is possible that it should be grouped amongst the `lesser villa' examples known from the region such as Marshfield (Bird n.d., 60).

When compared to the distribution of known and suspected villas on the middle reaches of the River Avon (ibid, 52, Fig. 5.1) the proposed villa at Moat Farm appears to be amongst those examples that outly a concentration which cluster around Aquae Sulis (Bath). Additionally Moat Farm is located only 1.6km east of the route of the proposed road which runs northward from the area of Bitton.

Medieval

The unexpected recovery of a few sherds of North Avon Gritty Ware (11th to very early 12th century - Pottery Report) taken with the other medieval evidence enables the origins of a suspected medieval manor at Moat House/Great House/Pucklechurch Hall to be possibly sought in the pre-Conquest period. However no definite structural or domestic depositional evidence was identified for this period to irrefutably support this thesis. It may actually be worth drawing attention to the infamous regicide of Edmund in connection with Pucklechurch in AD946 as there is a strong possibility he was visiting a hunting lodge or estate when this occurred; assigning a 'palace' to this village, as has been done in the past, seems wishful-thinking.

Obviously no direct connection with the Moat House site is presently possible, but the North Avon Gritty Ware from Moat Farm is the earliest medieval artefactual evidence retrieved from Pucklechurch (a charter of AD950 exists; Grundy 1935-6, 199).

Leaving king Edmund, it may be less contentious to suggest that if the architectural evidence for a late medieval solar identified by Linda Hall at Moat House, is considered along with the glazed 14th-century roof tile recovered during the 2000 watching brief - an artefact, which in a rural context is likely to indicate relatively high domestic status, then occupation suggested by the 12th, 13th and 14th century pottery evidence could also be regarded manorial. Again however, no structural evidence and little or no ceramic evidence from definite primary depositional contexts was recorded. Layer 318 however, uncovered at Plot 1, appeared to represent a (farm)yard deposit of the early 12th century. No indication of 15th-century activity was retrieved, though this could be due to the piecemeal nature of archaeological investigation. In the light of earlier and various later evidence, a hiatus in this century is likely to be ruled out.

In the light of the survival of part of the late medieval solar there now seems no reason to suppose that the site of the medieval and possible late-Saxon manor is anywhere other than at or immediately adjacent to the present Moat House. That the putative Romano-British villa is to be sought within the same grounds seems a distinct possibility, though to the west of the Kings Lane evaluation is another option.

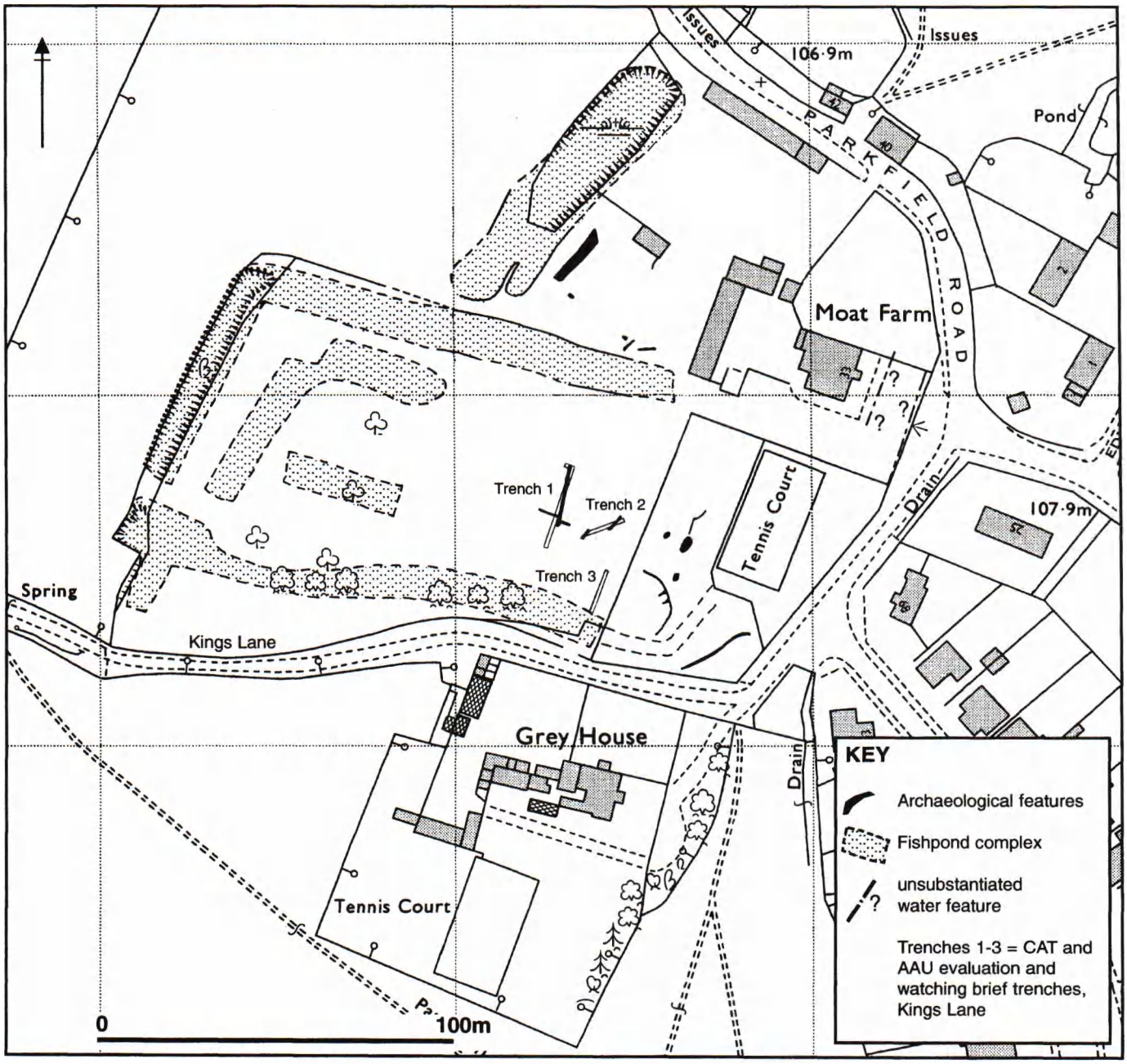


Fig.7 Plan of archaeological and cartographic evidence at Moat Farm (based on 1881 OS 1:2500 map, Bateman 1994, Fig.2, Erskine 1999, Appendix 1; Fig.4 and BaRAS watching brief).

Post-Medieval; moat, fishponds or both?

No medieval evidence whatsoever was recovered from any subcontractor ground breaking through moat arm deposits from either of the arms uncovered during the watching brief. Two pottery sherds; one of a 17th-century date and one dating to either the 16th or 17th century may be attributed to a basal moat fill of the southern arm. No other evidence of a comparable date was recovered from either of the moat arms but it appeared that in the area of Plot 1, arm 315 (Fig.2) cut some medieval deposits. When plan shapes of recorded Moat Farm moat/fishpond arms and cartographic evidence is considered together (Fig.7), the overall morphology suggests a complex of ponds, rather than moat features which conclusively surround a medieval or post-medieval manor. This morphology certainly does not rule out the possibility of earlier moat features at this site, though the 2000 watching brief could not provide definite evidence for them. Arm 319, though obviously not fully excavated (Fig.2) appeared to be part of the main pond complex or an earlier phase of it. The 1999 geophysical survey found no evidence for the continuation east of the most southern arm known from cartographic evidence (Fig.7). Likewise the central arm (BaRAS feature 303/315), roughly parallel to the latter arm, appears on the same principle not to extend to the east. This may be quite confidently asserted as a well shown in the grounds of Moat House on the 1881 1:2500 OS map is unlikely to have been excavated through a continuation of this arm. The cartographic evidence, though late (the latter map and GRO SL143 of AD1864 - see above) also suggests that the complex of features was discontinuous - unlike many moats.

Fig.8 Extract from Isaac Taylor's Map of the County of Gloucester 1777.

The only other evidence for a substantial water feature in close proximity to the Moat House is that example shown fronting the house in the copy of a painting (Plate 2). In other words the available existing evidence for water features, largely suggests that these were added to an already existing manor. Further confirmation that the features are to be identified as fishponds is provided by a likely stew pond shown on the above maps. Small rectangular stews or store ponds were '...used for breeding and/or holding small quantities of fish for immediate consumption 'in store' while the larger deeper ponds could have held greater numbers ready for future use.' (Dennison & Iles 1985, 36). Though the latter authors see the stew pond as part of a 'moat layout' at Moat Farm (ibid, 38), both the arms exposed during the watching brief were very shallow and broad, consistent with pond morphology. It is likely that the construction of much or all of the pond complex was contemporary with the suspected remodelling of the house in the 17th century.

Discounting Moat House only two fishpond sites (of sixty) in the former Avon County are thought to be attached to moats (op.cit.) though other well integrated examples such as Rushall, Much Marcle, here, should be noted. Fishponds and large stock-watering ponds have commonly been mistaken for moated sites in the past (Taylor 1978, 5). The general chronology of moat construction shows a marked decline between AD1400 - 1500 (c.5% of 5,000), though it is true that after this period some former moats were incorporated into landscaped gardens and fishponds (Le Patourel & Roberts 1978, 51). To conclude on the function question, it might be worth noting that the current place-name for this site is only the latest of at least three. Generally speaking the earlier two; 'Great House' and 'Pucklechurch Hall' seem to have somewhat grander connotations than the latest version.

The BaRAS 2000 watching brief recorded a number of other mostly minor post-medieval features whose functions have already been suggested with their descriptions in the above paragraphs. Apart from wall 200 which shows that the present farmyard entrance (which was adopted for the housing development) is of a relatively late date, none of these features change our understanding of the 17th century and later farmyard layout or major functions.

Watching Brief Results

The highly significant though often numerically small artefactural and physical evidence recorded mainly by the 1994 Kings Lane evaluation and the 2000 Moat Farm watching brief illustrate conclusively that the remaining undisturbed environs of Moat House have an extremely high potential for the preservation of archaeological evidence, relating at the very least, to a regionally important post-medieval, medieval and possible late-Saxon manorial holding. This conclusion can also be applied to the existence there of a high-status Romano-British settlement, almost certainly a variety of villa.

THE POTTERY FROM MOAT FARM WATCHING BRIEF 2000

by Rod Burchill

The small assemblage of pottery recovered during the archaeological watching brief was visually examined to identify the pottery types present and provide a date for the excavated contexts. The pottery was quantified by sherd count and weight.

The assemblage consisted of 171 sherds weighing 3344gms. The assemblage is comprised mostly of locally common medieval (23.9%) and post-medieval wares(51.4%). Romano-British wares, mostly residual, comprised 24% of the assemblage. A small group of unsourced Saxo-Norman coarsewares (4.6%) are similar to the North Avon Gritty Wares originally reported at Charlton, Almondsbury (Burchill 1989).

Except for two contexts, 335 and 342, the Romano-British wares were residual. Context 335 is probably dated to the late 2nd century whilst 342 belongs to the mid 3rd or 4th century.

As a group the medieval element of the assemblage dates from the 11th or very early 12th century (NAG wares) to the 14th century. With the exception of the small group of Saxo-Norman fabrics which probably belong to the North Avon Gritty wares, all are fabrics which are common in the greater Bristol area.

The post-medieval wares are all locally common and date from the 16th century onwards.

The Tile

The ceramic assemblage included fragments of Romano-British tile in contexts 310, 318, 335, 338 and 356. Box-flue tile was present in two contexts 347 and 504.

A glazed 14th-century Bristol type roof-tile was recovered from context 310.

Chronology of Contexts

Context	
302	19th century
305	late 17th century
310	14th century (72% is residual RB)
311	14th century
312	18th century
313	14th century
316	11th/early 12th century
318	early 12th century
321	18th century
322	12th century (but 322 same as late yard loam 362)
323	11th/early 12th century (but 323 same as 321)
331	N/D (?brick)
334	late 13th century
335	late 2nd century
336	18th century
338	Romano-British tile
340	12th century
342	mid- 3rd/4th century 347 Romano-British box flue tile
348	modern
350	17th century
356	no date (brick/tile)
400	modern
401	19th century
504	18th century
508	18th century
600	18th century
601	19th century
602	19th century

U/S over arm	
315, Plot 2	17th century
U/S Plot 1 (E)	19th century
Small Find 1	mid - late 12th century

BIBLIOGRAPHY

Aberg, F A (ed), 1978 *Medieval Moated Sites* CBA Research Rpt. No.17.

Aston, M & Iles, R, n.d. *The Archaeology of Avon.*

Atkyns, Sir Robert, 1712 *The Ancient and Present State of Glostershire* (Part 1).

BaRAS 2000, *Archaeological Building Recording at Barn 2, Moat Farm, South Gloucestershire* Report No. 767A 2000 (Peter Insole).

Bateman, C, 1994 *Kings Lane, Pucklechurch, Avon - Archaeological Evaluation Report.* CAT Report 94185.

Bird, S, n.d. 'Roman Avon' in Aston & Iles (eds) n.d.

Bristol & Gloucestershire Archaeological Society 1961, *A Gloucestershire and Bristol Atlas.*

Burchill, R, 1989 'Excavations in Northavon 1986: Elm Farm, Charlton, Almondsbury' *Bristol and Avon Archaeology* Vol 8.

Dennison, E & Iles, R, 1985 Medieval Fishponds in Avon *Bristol and Avon Archaeology* 4 - 1985.

Erskine, J, 1999 *Tennis Court Site, Moat House, Pucklechurch, South Gloucestershire (SGSMR 13013).*

Frith, B, (ed.) 1989-95 *Historical, Monumental and Genealogical Collections relative to the County of Gloucester* by Ralph Bigland.

Grundy, G B, 1935-6 *Saxon Charters and Field Names of Gloucestershire.*

Hall, Linda J, 1983 *The Rural Houses of North Avon & South Gloucestershire 1400-1700* (Bristol City Museum Monograph 6).

Le Patourel, H & Roberts, B, 1978 'The significance of moated sites' in Aberg (ed) 1978.

Rudder, S, 1779, *A New History of Glouestershire* .

Smith, A H, 1964 *The Place-Names of Gloucestershire.* Vol. XL English Place-Name Society Pt. 3.

Taylor, C, 1978 'Moated sites: their definition, form and classification' in Aberg (ed) 1978.

Thomas, Alan, 1994, *Moat Farm, Pucklechurch, Avon: Arch. Evaluation Report* CAT Report 94166.

Young, A C, 1998 *Archaeological Watching Brief; Moat House, Pucklechurch, South Gloucestershire* (SGSMR 11176).

ABBREVIATIONS

OS	Ordnance Survey
aOD	above Ordnance Datum
AAU	Avon Archaeological Unit
CAT	Cotswold Archaeological Trust

ACKNOWLEDGEMENTS

Jens Samuel would like to thank Mrs Romilly Brown for the generous loan of a photographic reproduction of a painting of Pucklechurch Hall.

WADE STREET BRIDGE AND THE ROMAN ROAD THROUGH BRISTOL: A HYPOTHESIS

by David H Higgins

The 14 miles of the Roman Road from Bath to Sea Mills (Margary 54) poses unsolved problems along its route: the high road through Weston contends with the low road through Kelston; Bitton contends with Somerdale as the site of *Traiectus* of the Antonine Itinerary, Bitton's supposed Roman camp is arguably medieval in origin (Russell 1997, 17-19); the junction of the Roman road from Mendip (Margary 540) with the Bath-Sea Mills road is not certain; even the Hanham-St George section lacks really hard evidence (cf. Russell and Williams 1984, 26). Geography, geology and commonsense, on the other hand, suggest that the A431-A420 from Bath to Bristol is the Roman route, at least as far as Summer Hill and probably farther into the Avon-Frome basin containing modern Bristol's suburbs. From this point westwards the line of the Roman road still remains speculative, until it reaches Durdham Down and the section investigated by A T Martin (1900). Although early proposals that it crossed the Avon at the site of the present Bristol Bridge can be discounted on historical and archaeological grounds, no other route has been convincingly proposed. The route of Margary 54 through Bristol, so far lacking archaeological evidence, also lacks a convincing hypothesis (Fig.1).

In the Autumn of 1865, workers employed in excavations on the 'old bank' of the River Frome at Wade Street Bridge, Bristol, uncovered two Roman lead pigs,

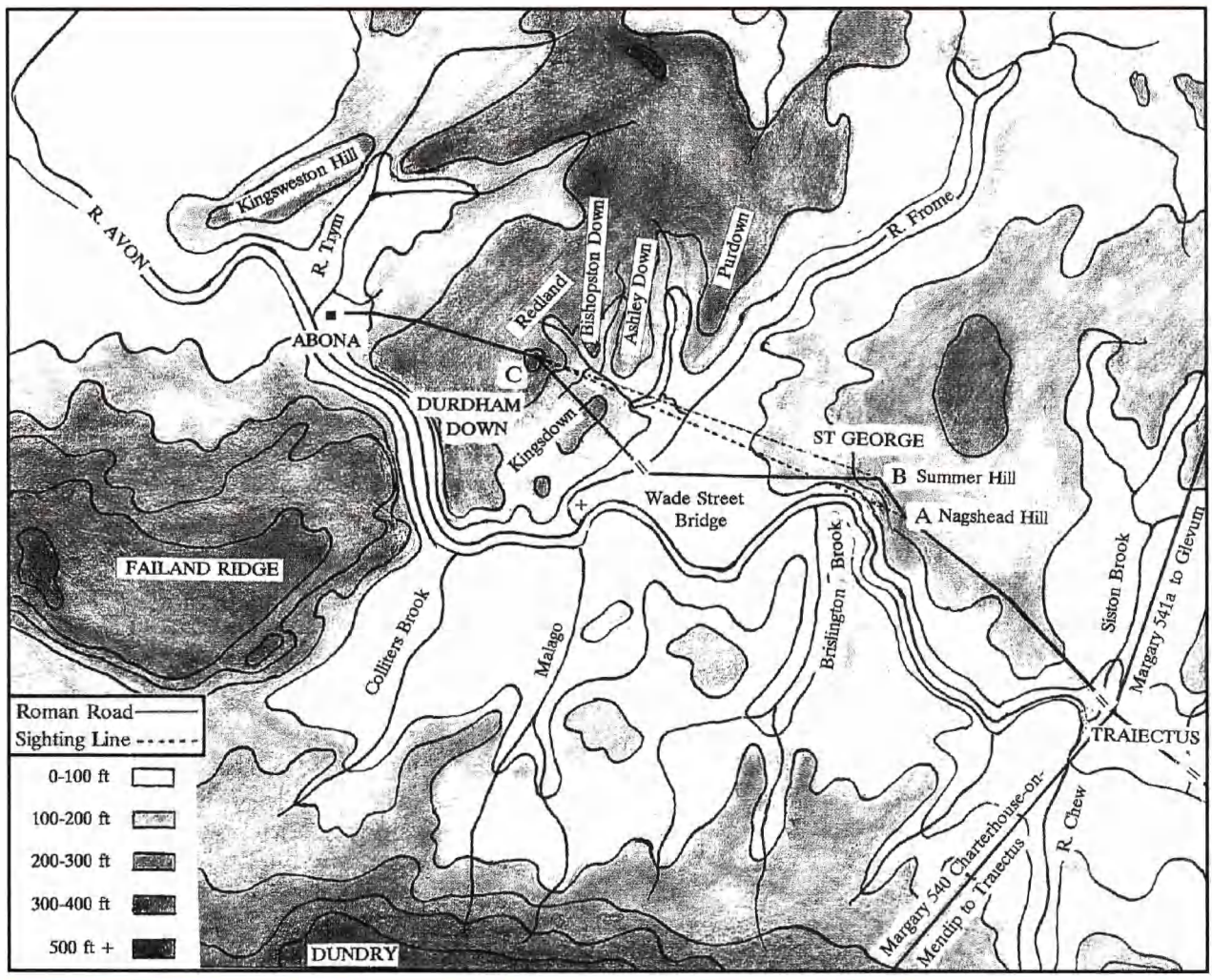


Fig.1 The Roman road through the suburbs of Bristol (after Higgins).

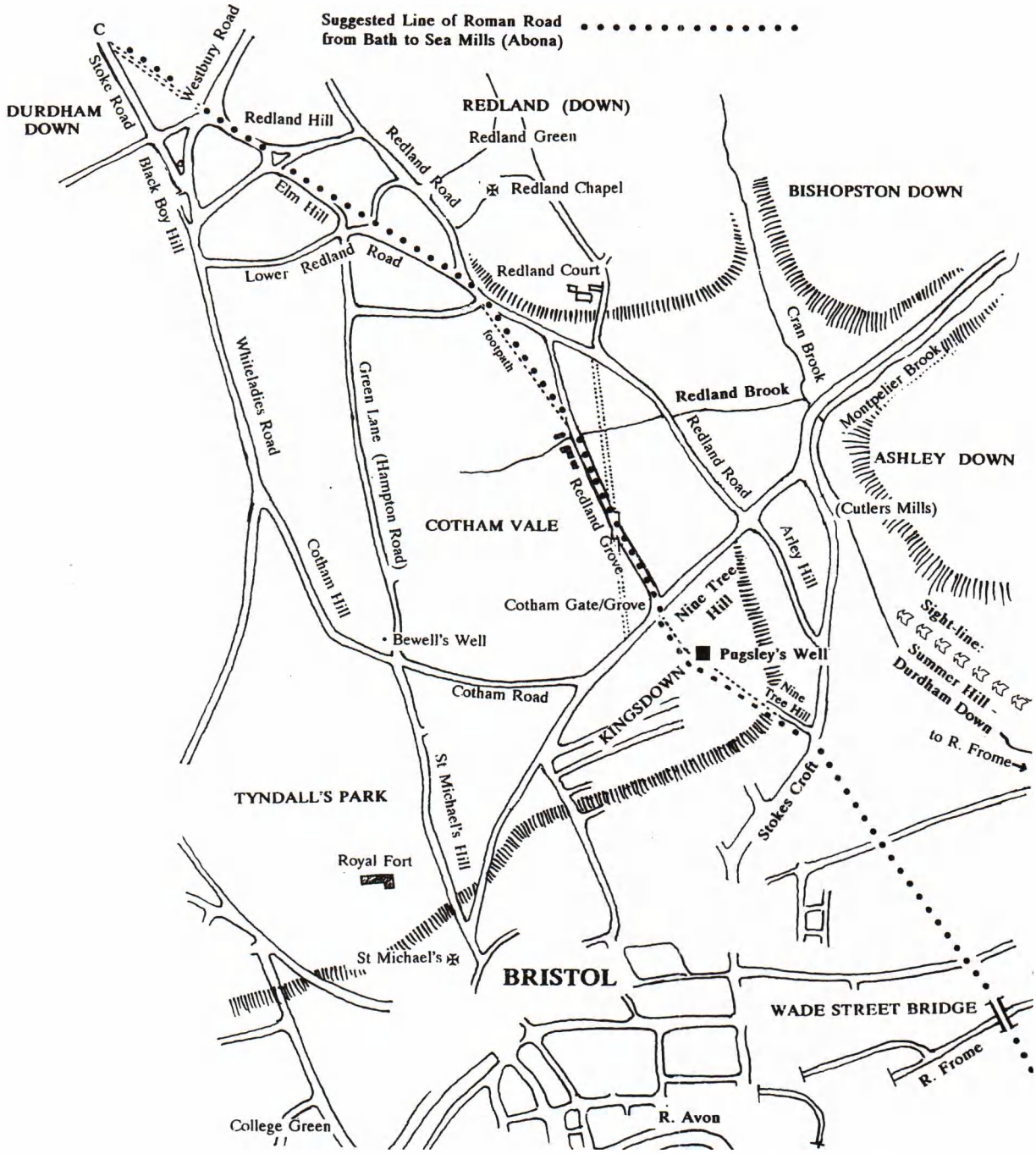


Fig.2 The Roman road through the northern suburbs of Bristol (Higgins based on Ashmead 1833).

amongst the most significant artefacts of the period found in the vicinity of the city. Unfortunately, no investigation or report on the site of the discovery was made at the time. Given that the works were directed to the renovation of the bridge and the steep rivetting of the bank, it may be assumed that the pigs were found at some not inconsiderable depth. With their inscription of the emperor Antoninus Pius, the pigs have been dated to AD 139-161 (Victoria County History *Somerset*, 1906, I, 342; Palmer and Ashworth 1956/57, 67; Branigan and Fowler 1976, 234; Russell and Williams 1984, 26). At the time of their discovery, the larger of 89 lbs (donated in 1895 to the Bristol City Museum: F4316) was reputed the heaviest so far discovered in Britain. The other, now in the British Museum, weighed 76lbs.

The earliest recorded bridge at Wade Street was constructed in 1711 by Nathanial Wade in partnership with Abraham Hook. Millerd's map of 1673 does not show a bridge at this site. It was built by Wade and Hook as a speculative venture, in order to 'facilitate development of the estate they owned comprising Wade Street, Great Ann Street, and the adjoining land' (Harris 1971, under *Wade Street*). The structure was known as Traitor's Bridge, because of Wade's ill-judged support of James in the events of the Glorious Revolution (Wade, a barrister, had been

Plate 1 Froome Bridge by H O'Neill, 1821 (Bristol City Museum & Art Gallery). This drawing of the rebuilt bridge of 1798 at Wade Street shows the 'old bank' of the River Frome as it would have appeared when the two Roman lead pigs were found in 1865. Whether Nathaniel Wade sited his bridge here due to geology or to use earlier, unrecorded foundations (such as a Roman bridge), is an open question.

Town Clerk of Bristol from January to October 1688). In 1798 the bridge was rebuilt, and officially redesignated the Frome Bridge. In 1865 the Frome's 'old bank', as described in the VCH entry, received its stone revetment, in works which recovered the Roman lead pigs. In early times the Frome at this point would have flowed in a deep channel through the alluvium, whilst a considerable margin along the banks would have been waterlogged and viscous in times of inclement weather or flood.

Surprisingly there has been in the records no constructive speculation as to how or why the lead pigs came to their long resting place in the 'old bank' of the Frome. Judging by the evidence of the circumstances of the discovery, particularly the apparent depth at which they were found, they may well have fallen from a vehicle transporting them across the Frome in the second century of the Roman occupation. It seems unlikely that they were part of a cargo of a Roman barge which came to grief whilst navigating the Frome, despite the conclusion of Bird (Aston and Iles 1986, 54). Had the pigs been found in the old banks of the Avon, a major commercial river, it would have been different. But they were found along the Frome, well upstream from its confluence with the Avon. The Frome was much as it is now, a watercourse of no size or real commercial utility, leading to no known place where such a significant cargo might have been of use. As an imperial monopoly, lead was an extremely valuable commodity. Its transportation from its origins in Mendip would have been carefully directed along the major Roman roads of the region, crossing rivers only at safe points by official ferry or normally well-maintained bridges. Eicholz surmised (MacInnes 1955, 176) that, found so far westwards from known Roman routes from Mendip to Bath, the lead was on its way to markets in South Wales, or even perhaps further afield, in which case it was arguably *en route* in the first instance to Abona, having passed north along the road from Mendip through Chew Park (Margary 540), by ferry over the Avon at *Traiectus*, then westwards along Margary 54.

The fact that the pigs were not retrieved by the Roman administration, indicates that they had fallen from a considerable height, consistent with the height of a bridge, to their final resting place in the deep ooze of the Frome bank. The nature of the mishap must remain speculative. The two-wheeled Roman cart was normally deemed sufficient for four complete lead pigs. The Roman cart-load or fodder was determined by the standard weight of a lead pig (195 *librae* or 141 pounds), and remained the basis of the medieval carretate (3 Roman fodders). Clutches of four pigs have been found together at Greene Ore on Mendip, Brough-on-Humber and Pulborough. On the other hand, at Clausentum (Bitterne), two were found together (Palmer and Ashworth 1956/57, 77-80), but this is a minority find. The surmised cart at Wade Bridge may have proved unreliable and had collapsed as it negotiated the bridge (in which case a further two or more Roman pigs await recovery at the Wade Bridge site); or the cart was being

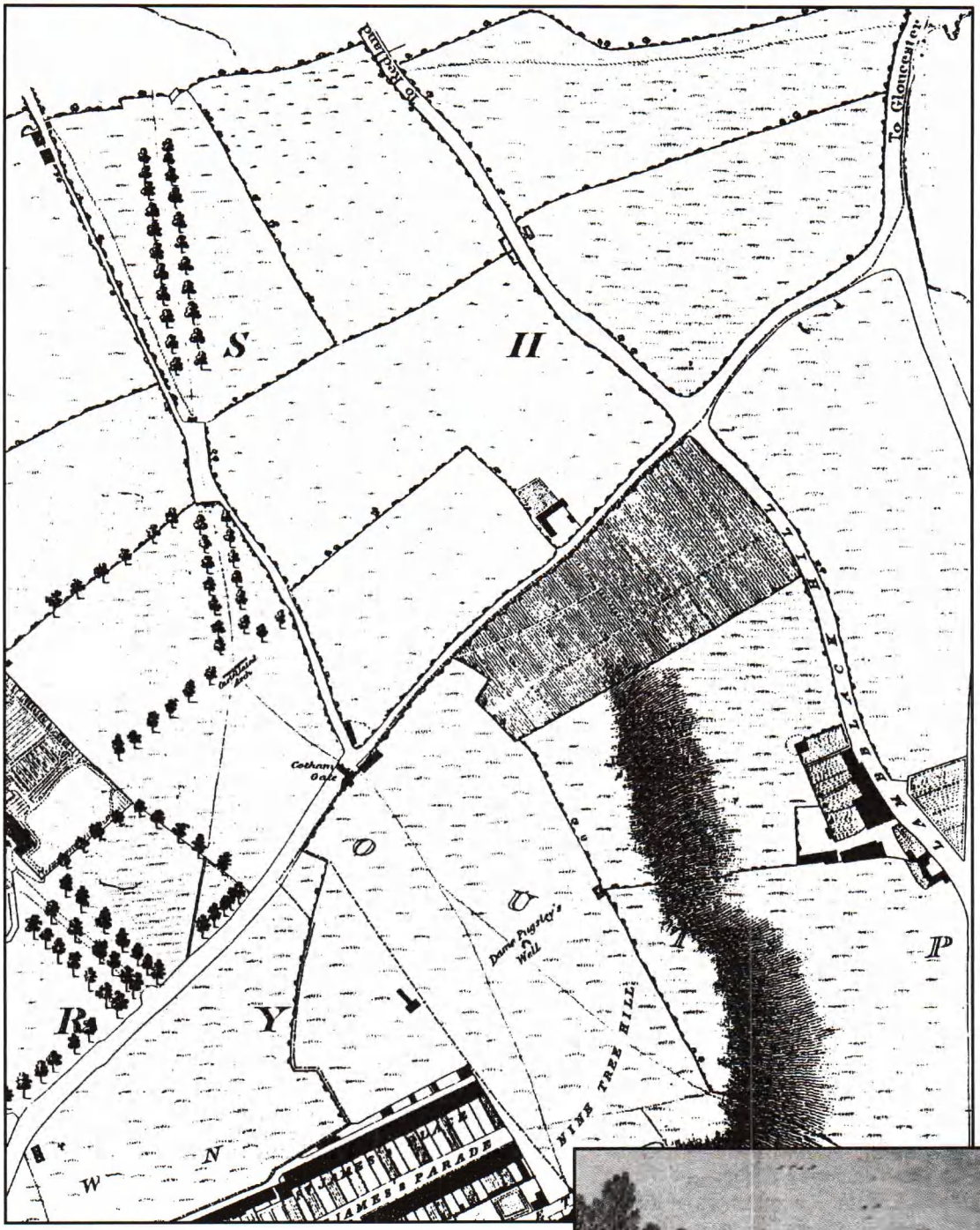


Fig.3a
Ashmead's 1828 Plan of Bristol showing 'Dame' Pugsley's Well, with the path which skirts it on a NW-SE axis. This may indicate the course of the Roman road from Bath to Sea Mills. The cottages (top left) overlooked the former Redland Brook, later used as the course of the new railway. The Roman road possibly crossed the brook at this point.

Fig.3b
View of 'Mother Pugsley's Well, Kingsdown by H O'Neill, 1823 (Bristol City Museum and Art Gallery). The footpath leads uphill towards Cotham Gate (top left of picture).

recklessly driven, or the bridge itself may have collapsed. What seems clear is that a mishap at a ford or causeway over the Frome would not have led to the pigs sinking under their own weight to the hitherto *irretrievable* depth at which they were found in 1865. A major operation to excavate them would doubtless have been mounted: the imperial ownership of the lead would have been conducive to a massive effort. Yet for nearly two millennia the pigs lay in the waterlogged environment of the 'old bank' of the Frome. The lead pigs therefore probably mark the site of a bridge. The bridge in turn indicates the presence of a major road, which is arguably the hitherto 'lost' section of Margary 54 through the suburbs of Bristol.

Because of the only partial survival of the Roman surveyors textbook, the *Corpus Agrimensorum,* previous little is known from antiquity on the methodology of surveying for road construction (Dilke 1971). The probable practical method of laying out the *line* of a road across unmapped country is discussed by Codrington (1918) and Margary (1955): sighting-lines were established on suitably distant points on high ground (perhaps utilising smoke-beacons, or features such as cairns or barrows), followed by the fixing of one or more intermediate markers (especially in any interdicted areas), subject always to adjustment in the light of the physical peculiarities of the terrain (marsh, water-course, cliffs, deep woodland etc). The penultimate stage of the Roman road Margary 54, on its course from Bath to Sea Mills, may have begun effectively at the summit of Nagshead Hill near the present Wesley Memorial Methodist Chapel (see Fig.1 at A). From here a direct view westwards may be had for the first time of the ridge of Durdham Down, with, in the middle distance, but at a lower altitude, the mass of Kingsdown. Having negotiated the heights near Troopers Hill, above the St Anne's loop on the Avon, the Roman road was probably moved on to point B on Summer Hill where, in line with the probable sighting-point on Durdham Down (at C), adjustments to the course of the road would have become necessary. To continue the road on the *direct* sighting-line (B-C) would have led to untoward difficulty and effort, involving the negotiation of marshy land at the confluence of several streams (see Fig.2, based on Ashmead s Plan, 1833). Bridging or the construction of fords would have been needed to cross the Frome, the Ashley Brook, what might be called the Montpelier Brook between Baptist Mills and Cutlers Mills (possibly twice), and what might be called the Redland Brook. This course would also have passed through terrain prone to ambush: the deep, wet and probably heavily wooded gaps between the heights of Kingsdown, Ashley Down, Bishopston Down (the southern slopes of Horfield Down) and Redland (Down). On the other hand, a bridge over the Frome sited at the present Wade Street Bridge, would have obviated most of the problems.

From Wade Street Bridge to the proposed sighting-point on Durdham Down (C), the course of the road would have needed to negotiate the heights of Kingsdown. An intermediate marker may have been fixed at Cotham Gate

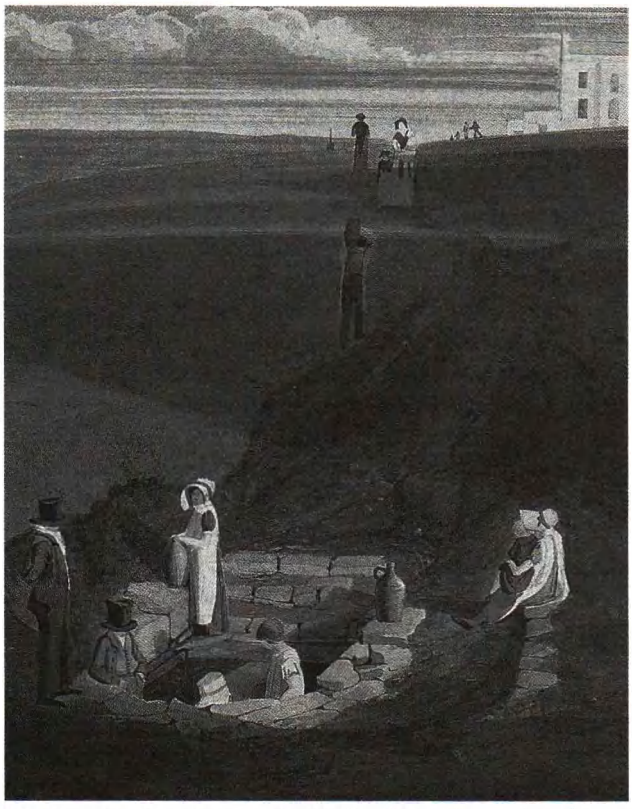


Fig.4 Mother Pugsley's Well, Kingsdown by Samuel Jackson, 1823 (Bristol City Museum and Art Gallery). View south down what is now Nine Tree Hill towards new housing in Somerset Street.

(where present Cotham Grove now joins Cotham Road). The Roman surveyor's route from the bridge, in order to avoid the worst of the steep slopes of Kingsdown, may naturally have veered to the lower (eastern) end of Kingsdown at Stokes Croft Gate (an important locus of the 1373 City and County boundary). Here the choice of routes presents two alternatives: one is the slightly steeper gradient offered by Nine Tree Hill, leading quickly via a perennial spring (Pugsley s Well) to the security of high ground; the other is the waterless line of Russell and Williams (1984, 21 at G1), who offer Arley Hill and Redland Road. The route via Pugsley's well is perhaps preferable: it stands farther off the marshy, strategically dangerous confluence of vigorous streams and offers the use of a perennial spring with its auspicious religious associations. Roman roads were for draught-animals and stock, as well as for thirsty and superstitious soldiers, all needing regular watering (Fig.3)

From Cotham Gate, near the highest point of Kingsdown, the route may have passed over the ridge, following the line of Cotham Grove and Redland Grove, descending to approximately the present railway bridge at Redland Railway Station. Surveyed before the railway's construction, Ashmead's plan indicates a group of cottages beside the stream (known here as Redland Brook) which flowed in an easterly direction to join Cran Brook near the (now) junction of Zetland Road and Gloucester Road.

Redland Brook, whose whole course was appropriated and culverted by the new railway venture, is described as a river in an 18th-century view of Redland Court:

The house lay against a gently sloping hill, with a large part of the hillside in front of it, the glen, and on the other side of the glen and the river, a hill, as gently sloping but not as high (Williamson 1990, 4).

This 'river' had to be crossed at some point by Margary 54. Visual evidence from the modern railway cutting, between Meridian-Waverley Roads and Kensington Road, indicates that the brook was probably steep-sided in its upper reach towards (now) Hampton Road, and therefore difficult of negotiation, demanding expensive bridging to overcome a relatively minor obstacle. The group of cottages of Ashmead's map may represent the first and most easily negotiable point for the crossing of Redland Brook by means of a suitably stone-lined ford. Ashmead's map also indicates a footpath running NW from the cottages, which may indicate the course of the Roman road. This joined Redland Road not far from its junction with Lower Redland Road. The latter is commonly proposed, with Elm Lane, as the final stretch of the road on to Durdham Down (C) on Fig.1. Here (at the trigonometrical point marked on the OS 6" map of 1901-02) it would have joined the verified section of Roman road to Abona (Sea Mills). Such a choice of route along Lower Redland Road and Elm Lane harmonises, interestingly, with the sighting-line B-C from Summer Hill to Durdham Down, and perhaps weakens the argument for the line of Arley Hill and Redland Road proposed by Russell and Williams (1984, 26).

Evidence of geography and the limited archaeology presents a strong case that the A431-A420 from Bath to Bristol adopted, for the most part, the Roman route at least as far as Summer Hill. The modern road then sweeps westerly into Bristol before its final entanglement with the new ring system at Upper Easton. Wherever the crossing of the Frome, the options for the course of the Roman road west from the Avon-Frome basin towards Durdham Down are fraught with the sort of difficulties that it had not encountered on its way in. We should not, I think, seek the grand line of the sort adopted by the road as it enters the Avon-Frome basin from the east. The sighting-lines, conjectured here, appear to invite the Roman surveyors into terrain which is problematic in both engineering and strategic terms: i.e. the Frome/Ashley Brook/Montpelier Brook (Baptist Mills-Cutlers Mills)/Cran Brook basin, and the wet and probably forested 'jaws' between the four substantial '*massifs*' of Kingsdown, Ashley Down, Bishopston (lower Horfield) Down and Redland (Down). It is unlikely that any Roman military surveyor, particularly in the unsettled early stages of the Occupation, might have recommended such a route to a Governor such as Frontinus, both a distinguished engineer and tactician. The conjectured sighting-line from the bridge at Wade Street to Durdham Down (C), on the other hand, appears to offer a pragmatic solution: with little deviation it allowed the negotiation of Kingsdown at its lower, more manageable eastern end, passed hard by a perennial spring of fresh water (Pugsley's Well), and provided a sufficiently elevated platform on Kingsdown, with ample view, from which to descend into Cotham vale, before ascending again to the security offered by the heights of Durdham Down.

BIBLIOGRAPHY

Aston, M and Iles, R, 1986 *The Archaeology of Avon.*

Branigan, K, and Fowler, P, 1976 *The Roman West Country.*

Codrington, C, 1918 *Roman Roads in Britain.*

Dilke, O A W, 1974 *The Roman Land Surveyors.*

Harris, H C W, 1971 *The Origin of District and Street Names in Bristol.* Typescript unpublished, Bristol Central Reference Library.

MacInnes, C M (ed), 1955 *Bristol and Its Adjoining Counties.*

Margary, I D, 1957 *Roman Roads in Britain.*

Martin, A T, 1885 On the Roman Road between Bath and Caerwent. *The Clifton Antiquarian Club,* vol I 1888. 58-66.

Martin, A T, 1900 The Roman Road on Durdham Down. *Trans Bristol and Glos Archaeological Soc* 23, 309-11.

Palmer, L S, and Ashworth, H W, 1956-57 Four Roman Pigs of Lead from the Mendips. *Proc of the Som Archaeological and Nat Hist Society* 101-102.

Russell, J R, 1997 Two Earthworks in the parish of Bitton. *Bristol and Avon Archaeology* 14.

Russell, J R, and Williams R G J, 1984 Romano-British Sites in the City of Bristol - a Review and Gazeteer. *Bristol and Avon Archaeology* 3.

Williamson, B, 1990 *Redland, Bristol.*

MEDIEVAL CHEDDAR WOOD: TRENCH EXCAVATION 2000

by John Knight

INTRODUCTION

An archaeological excavation comprising of a trench 5m x 1m was undertaken on the northern woodbank of Cheddar Wood (Fig.1) from 31st May to 2nd June 2000 by a small team of archaeology undergraduates from the University of Bristol directed by John Knight, a PhD student. The excavation served a dual purpose both as a training excavation for the undergraduates and as research for the PhD thesis The Landscape Archaeology of the Ancient Woodlands of Northern Somerset.

Cheddar Wood is owned by the quarry company, Bardon Aggregates, and the wood is managed by the Somerset Wildlife Trust (SWT). The woodland is a Site of Special Scientific Interest (SSSI). With regard to section 28 of the Wildlife and Countryside Act 1981, Dr Christopher Hancock of the SWT applied to English Nature (EN) for permission for the Bristol University team to conduct an excavation. Permission was granted and the University contingent liased with Bardon Aggregates for access to the site.

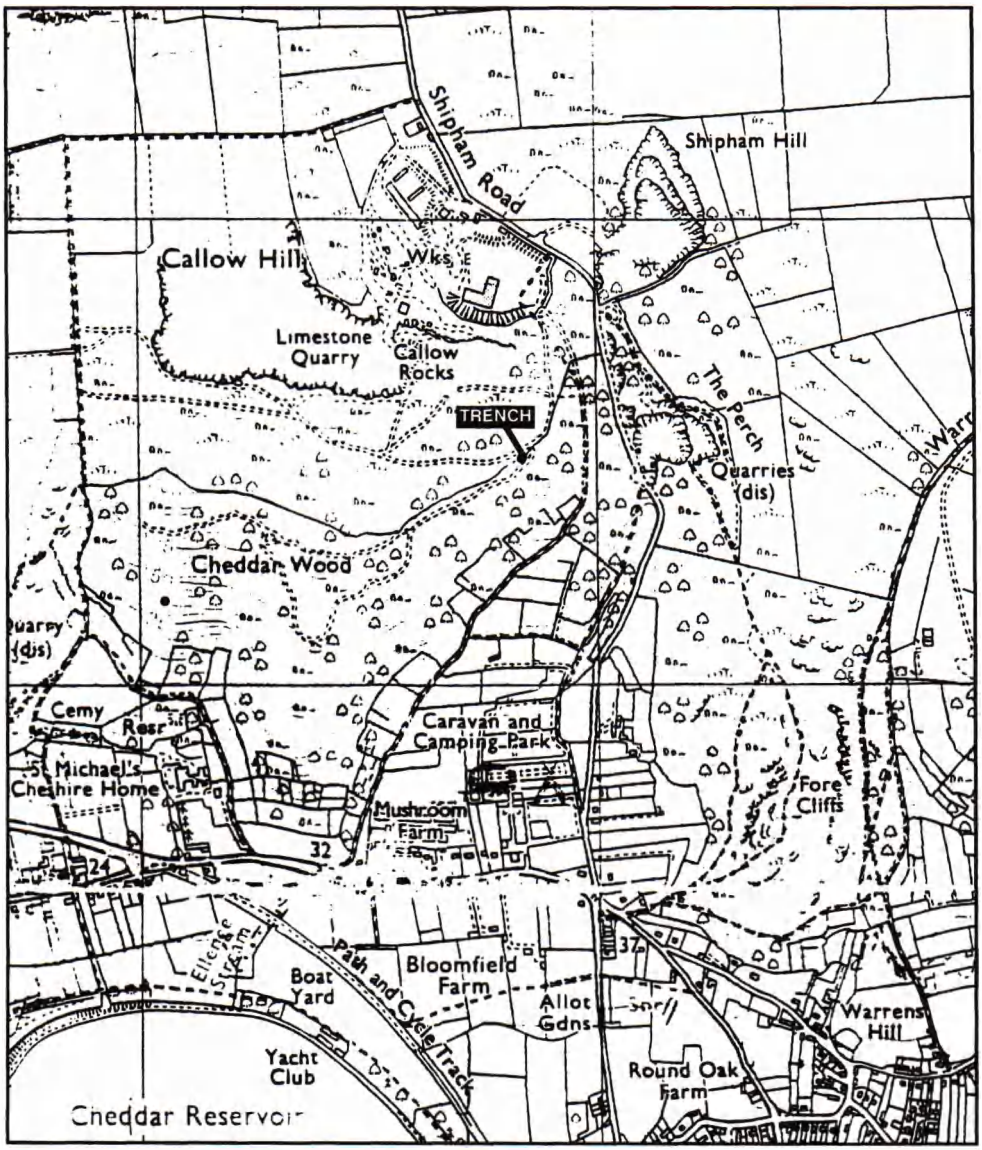


Fig.1 Location of Cheddar Wood and excavated trench.

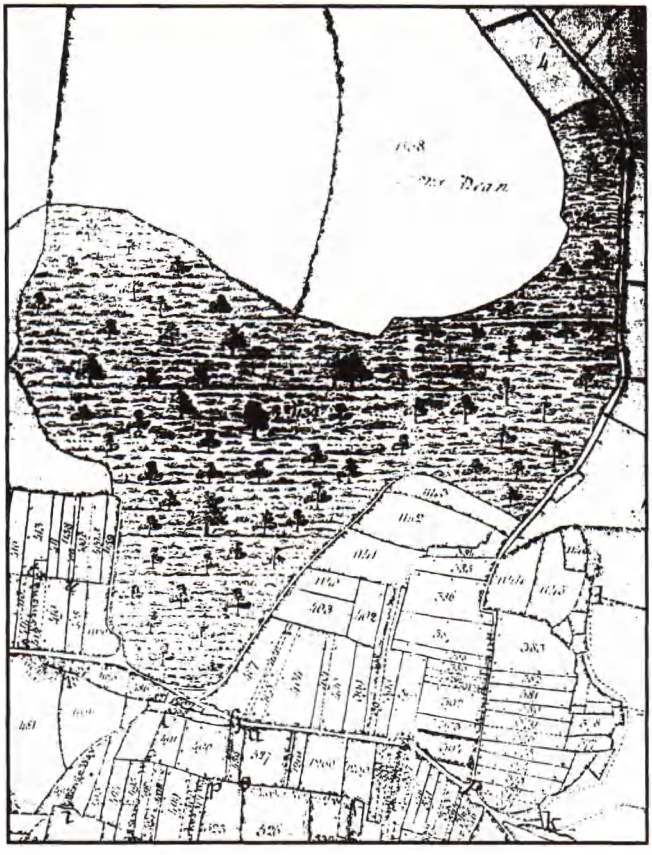


Fig.2 Enclosure map of Cheddar 1801, showing Cheddar Wood.

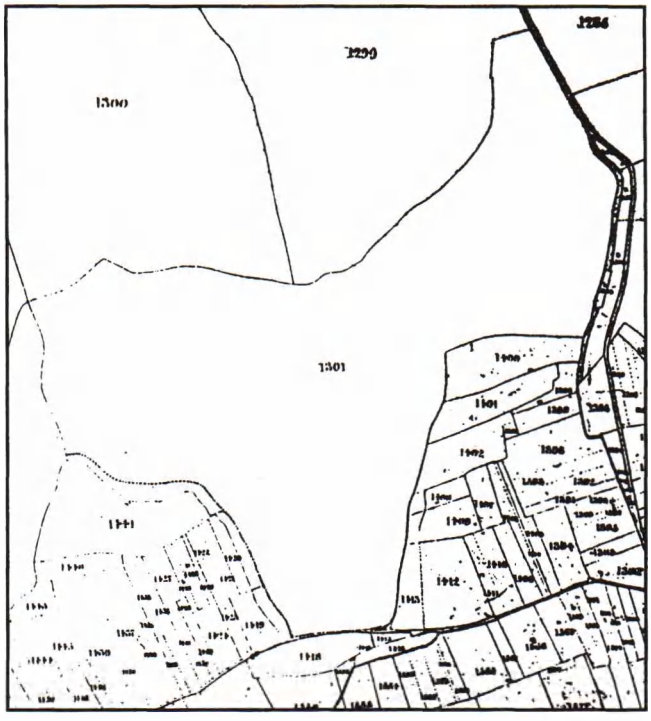


Fig.3 Portion of the 1837 Tithe map of Cheddar depicting Cheddar Wood.

The excavation was carried out to answer a number of questions:

1) Has the ditch been recut?
2) What was the original depth of the ditch and height of the bank?
3) Is there evidence of postholes in the bank?
4) Can any dating evidence be retrieved?
5) What can the findings from the excavation tell us about medieval woodland management?

THE LANDSCAPE HISTORY OF CHEDDAR WOOD

Cheddar Wood is composed of approximately 100 acres of ancient semi-natural woodland existing on the south-facing slope of Callow Hill. The geology is Carboniferous Limestone with Lulsgate brown earth drainage class (Soil Survey Sheet 280).

The northern woodbank of Cheddar Wood is comprised of an earthen bank and ditch. Toward the western end of the northern bank it has been partly revetted with a dry-stone wall. This was left unfinished and the wall does not revet the area excavated. From inspection of the 1801 enclosure map (Fig.2) and the Tithe map of 1837 (Fig.3) it can be seen that recent secondary woodland has developed beyond the northern edge of the wood. This advancement is shown on the 1904 OS 6" map (Fig.4). The encroachment of woodland has aided the survival of the bank. Cheddar Wood is what remains of woodland owned by the Bishops of Bath and Wells in the thirteenth century and of King Edmund the Magnificent in the tenth, and it has been suggested that the northern woodbank was constructed after the bishop's grubbing of surrounding woodland in the thirteenth century (Rackham, 1988, 30).

To a large extent the woodland is dominated by Small-leaved lime (Tilia cordata), with areas of ash (Fraxinus excelsior) and hazel (Corylus avellana). The ground flora is rich and contains many ancient woodland indicator species (Rose, 1999). Examples include Solomon's seal (Polygonatum multiflorum), Wood anemone (Anemone nemorosa) and Purple gromwell (Lithospermum purpureocaeruleum). The woodland also contains the nationally rare Starved Wood-sedge (Carex depauperata). It has been suggested that the majority of Cheddar Wood is primary woodland (Russett, 1980, 2). Cheddar Wood has been referred to as probably the grandest ancient wood in Somerset (Rackham, 1988, 30).

EXCAVATION RESULTS: INTERPRETATION AND DISCUSSION

A hachured survey of the area to be excavated was drawn and levels were taken to show the height of the slope, the depth of the ditch and the height of the woodbank (Fig.5). A second hachured survey together with appropriate levels was undertaken once the excavation was complete (Fig.5). Both surveys together with their respective levels can be compared to the section drawings of both sides of the trench (see sections, Fig.5) to give an understanding of the site's

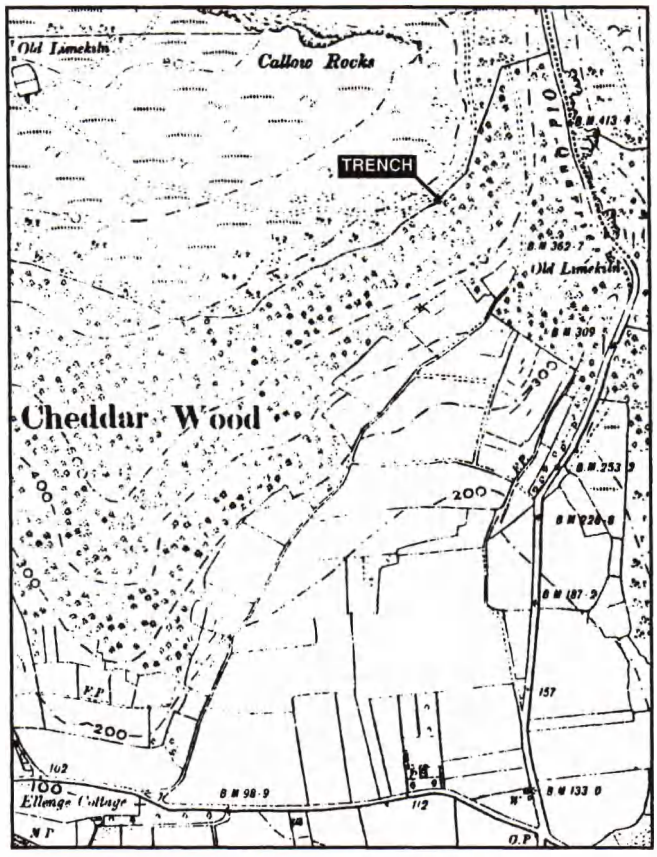


Fig.4 1904, 2nd Edition OS map showing recent secondary woodland to the north of the northern bank of Cheddar Wood.

arrangement and stratigraphy.

The topsoil for the bank and the ditch (Context 1001) was shallow and slightly disturbed by root activity. A few small fragments of limestone (10cm x 10cm) were recovered in the surface layer. Along the length of the northern woodbank there are signs of past rabbit activity that would affect the site stratigraphy. None affected the trench. There are also large coppice stools situated on the woodbank. The majority are small-leaved lime, some of which are of great age. Though such an example existed within a few metres of the excavation the only major area of disturbance was at the southern edge of the trench (see Fig.5). This did not affect the site interpretation.

The Bank material (1002) was a red/orange clay soil that contained limestone fragments throughout (average size 10cm x 10cm). The material of the bank had been slightly affected by roots of nearby trees. The bank had a rounded top that would have been suitable for either a hedge topping or fencing to prevent deer, cattle and sheep, entering the wood. The ditch material (1003) was a dark brown loamy soil that had a small amount of root disturbance. No limestone fragments were recovered and the silting of the ditch was shallow.

The buried soil beneath the woodbank (1004) was a similar red/orange clay to that recovered from the bank (1002). However, no limestone fragments were present. Soil samples were taken from this buried section but these have not as yet been analysed The ditch cut (1005) was roughly V-shaped with a steep slope either side. The change in the steepness of the slope is shown in Fig.5. Surprisingly the ditch is relatively shallow but it is possible that the steep side to the ditch together with the bank and a hedge or fencing would be a suitable arrangement to prevent deer, cattle and sheep, from entering the woodland.

DISCUSSION

From inspection of the two vertical surveys it can be seen that there is no sign of recutting. It is possible that the ditch was recut in the past and that the last recutting was deeper than the others removing evidence of earlier recuts. However, the relative shallow depth of the ditch suggests otherwise and implies a single cut. This suggests that the major method of preventing deer, cattle and sheep, from entering the wood and consuming coppice regrowth lay with the bank. With this in mind the bank would most certainly require topping with either a well managed hedge or a form of fence. The shade resistant holly (Ilex aquifolium) and hornbeam (Carpinus betulus) are considered to be the most suitable examples for hedging (Rackham,1980,156).

As with most other dry ditches the ditch is roughly V-shaped. From the top of the bank to the bottom of the ditch is only 71cm (see Fig.5). Even allowing for erosion the bank and ditch are not a sufficient height to prevent deer, cattle and sheep, from encroaching the woodland and feeding on fresh coppice regrowth. The bank would therefore have required further protection. As can be seen from the hachured plans and section drawings the ditch is steep sided (Fig.5). It is likely that the ditch is deliberately steep sided as a method of hindering deer from leaping any form of topping to the bank.

No postholes were revealed during the excavation to suggest that fencing existed along the woodbank. However root disturbance partly impeded the recovery of any possible postholes. The shallow nature of the bank and ditch suggests a fence atop the bank was needed to keep out deer, which can leap over 2m.

Even with excavation woodbanks are difficult to date. The sinuous example of the good-sized northern woodbank of Cheddar Wood implies that it is medieval. Later woodbanks would be smaller and more acute in profile. Large coppice stools along its length give it an age of at least 300 years. No dating evidence was recovered from either the ditch or bank during the excavation. It would be extremely unlikely that datable finds, for instance pottery, would be recovered within so small an excavated area. Aside from their tools workers constructing the bank and those later involved in the management of the woodland would have carried few possessions. From consideration of the size and profile of the bank and that it is a single cut it is likely that the bank was constructed when woodland further to the north had been grubbed out. This appears to correlate with Rackham's (1988, 30) suggestion of its construction in the thirteenth century during woodland clearance undertaken by

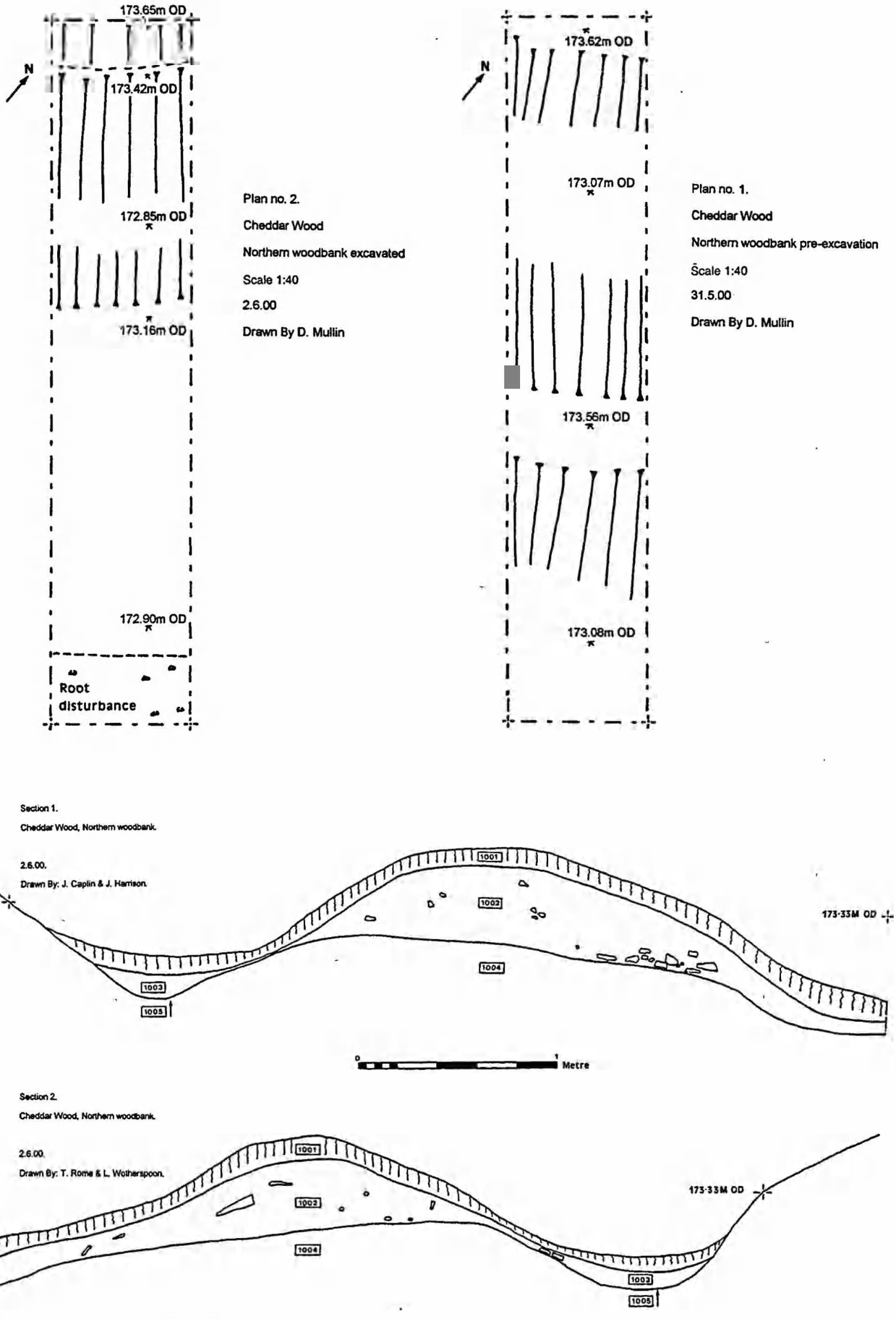


Fig.5 Plans and sections of the excavation trench.

the Bishops of Bath and Wells. Further investigation of documentary sources will be required to strengthen this hypothesis.

The excavation implies that once the woodbank and ditch were constructed the major area of labour lay with the maintenance of the topping for the bank. The trench was only a small part of a wide stretch and this is not to say that other areas of the bank surrounding the woodland were not recut. Rackham (1986, 98; 1990, 114) argues that medieval woodlands typically have a strong bank and ditch 20 to 40 feet in total width. As can be seen from the hachured plans and section drawings (Fig.5) the total width of the bank and ditch does not meet this average. Documentary evidence together with vegetation surveys prove the ancient status of the woodland and yet the northern bank, which is the best survival for Cheddar Wood is small when compared to Rackham's suggestion of total width. The boundary earthworks of over 50 ancient woodlands in northern Somerset have been investigated as part of the current PhD research. The vast majority have banks and ditches of moderate size that do not exceed 5m. This together with the excavation results from Cheddar Wood implies two things. First, that for most ancient woodlands in Somerset, once the bank and ditch was constructed the major area of importance lay with the maintenance of a form of hedging or fence. Secondly, that woodbanks in Somerset are below Rackham's average, suggesting that either within Somerset there was a preferred method of woodbank maintenance or that Rackham's average is too high. Statistics of woodbank sizes from other ancient woodlands around the country would be required to consider this possibility.

BIBLIOGRAPHY

Rackham, O, 1988 Woods, Hedges and Forests. In Aston, M (ed), *Aspects of The Medieval Landscape of Somerset.* Somerset County Council. 12-31.

Rackham, O, 1980 *Ancient Woodland.* Edward Arnold.

Rackham, O, 1986 *The History of the Countryside.* Reprint 1996. Weidenfeld & Nicolson.

Rackham, O, 1990 *Trees and Woodland in the British Landscape.* Revised. Reprinted 1996. Phoenix.

Rose, F, 1999 Indicators of ancient woodland. *British Wildlife.* April. 241-251.

Russett,V, 1980 Cheddar's Ancient Woods — a brief note. *Axbridge Archaeological and Local History Society News Sheet.* No.41 July.

ARCHAEOLOGICAL EXCAVATIONS AT UPPER MAUDLIN STREET, BRISTOL, IN 1973, 1976 & 1999

by Reg Jackson

SUMMARY

Excavations took place in 1973, 1976 and 1999 prior to redevelopment on the lower slopes of Kingsdown to the south of Upper Maudlin Street. The results of those excavations are reported here together with a history of the area compiled from documentary, cartographic and pictorial sources and published accounts.

The excavations revealed land use dating from the Neolithic to the present day. The archaeological record, linked to the documentary sources, allows an understanding of the history and development of this important site lying just to the north of the medieval city.

Of particular interest was the discovery of the remains of a Romano-British settlement occupied from the late 2nd to the 5th centuries. A considerable quantity of iron working debris found in 1999 suggests that at least part of the economy of the settlement was based on the smelting of iron ore.

A boundary ditch, wall and other features dating to the late 12th and early 13th centuries pre-dated the establishment of the Franciscan friary in the middle of the 13th century. Although the friary buildings were situated on the lower ground beside the River Frome, the area of the excavations lay within the friary precinct. Cultivation soils of this period show the monks probably used the hillside as orchards, vegetable plots or herb gardens. The conduit carrying water from higher up Kingsdown to the friary was found during the 1973 excavation.

The excavations also recorded the development of the site after the Dissolution of the friary in 1538. The wealthy citizens of Bristol built lodges or garden houses on the Upper Maudlin Street frontage. Two of the sites produced substantial remains of the formal gardens belonging to those lodges with paths and borders laid out on a rectilinear grid. The garden found in 1999 was probably established sometime between 1670 and 1673 and, after alterations to its design, was abandoned around 1735 when some of the land was sold for development.

Parts of the area were still used for cultivation as well as for the disposal of rubbish in large numbers of pits. The Moravians erected a chapel and other buildings and laid out a burial ground in 1756 while a row of four terraced houses - Pembroke Court - was built shortly after 1759.

In the middle of the 19th century a Welsh Baptist Chapel, warehouses and industrial buildings were constructed over the rest of the area of the excavations. These were demolished in the 1970s.

ACKNOWLEDGEMENTS

The author would like to thank:

The Special Trustees for the United Bristol Hospitals for financing the archaeological excavation in 1999 and the post-excavation work on that site.

The Avon Area Health Authority and Laing's Development Company for funding the 1976 and 1973 excavations respectively.

Paul Wren of the Special Trustees for his assistance and advice throughout the 1999 excavation.

Bruce Williams of Bristol and Region Archaeological Services for managing the project and Rosie Clarke for undertaking the administrative work.

Ann Linge who drew all the plans and finds for publication and gave much help, advice and assistance on that aspect of the report.

The team of archaeologists employed by Bristol and Region Archaeological Services to carry out the 1999 excavation, plan and record the archaeology and process the finds. Patrick Watson acted as Site Supervisor and ensured the smooth running of the site and the accurate and detailed recording of the archaeology. Steve Bagshaw, Kevin Beachus, Jon Boon, Carlos Garcia, Kate Hill, Paul Jones, Alison Kennen, Andy King, Dave Lockyer, Dave Mullin, Mark Oakley, Kim Watkins and Chris Zukowski worked as Site Assistants.

Emma Burchill, John Dutton, Paul Simpson, John Turner and Duncan Wright gave freely of their time and energy as volunteers.

Dr. A.J. (Toby) Parker and Vince Russett who carried out the excavation in 1976 and whose immaculate records allowed the site report to be written after a lapse of many years.

Mike Ponsford and his team of archaeologists for their work on the 1973 excavation.

Dr. Roger Leech for his chapter on the documentary and historical aspects of the Upper Maudlin Street area.

Rod Burchill, Rosie Clarke and Dave Mullin for preparing the various find reports.

The staff of the Bristol Record Office, Bristol Reference Library and Bristol University Library for providing facilities and advising on documentary research.

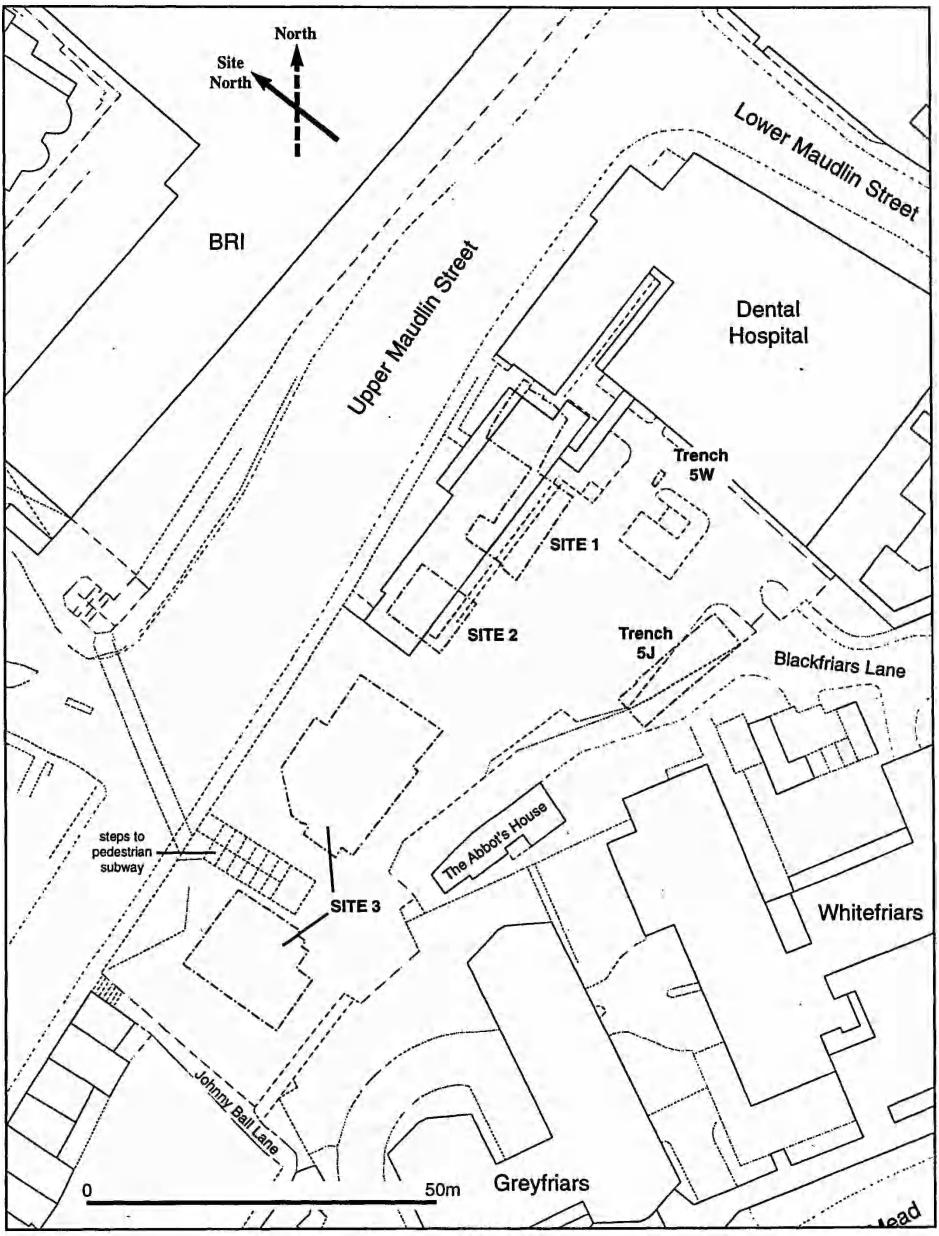


Fig.1 Site location plan.

INTRODUCTION

Circumstances of the Excavations

A series of major rescue excavations were undertaken in Bristol from the late 1960s until the early 1990s and these have done much to enhance our understanding of the origin and development of the medieval city. One of those excavations took place in 1973 on the site of the Franciscan friary in Lewins Mead and may be divided topographically and historically into two distinct areas of interest:
- the 'lower' site on the flood plain of the River Frome to the north of Lewins Mead where the church and conventual buildings of the friary were located and
- the 'upper' site on the lower slopes of Kingsdown, between Upper Maudlin Street and Blackfriars Lane, which had been used as gardens and orchards within the friary precinct

The upper site produced little of medieval interest but uncovered the remains of a Roman settlement - the first time occupation of that period had been found in the central area of Bristol.

The intention to carry out further redevelopment to the west of the upper site led to another excavation in 1976 that again produced evidence of Roman occupation.

Limited post-excavation work was carried out on the finds from the 1973 and 1976 excavations, and the only publication produced was a popular booklet briefly describing the results of the 1973 excavation (Ponsford 1975). Neither of the sites was published in the form of a full and comprehensive excavation report. There were a number of reasons for this lack of publication, mainly the shortage of funds and manpower, and the constant threat to important archaeological sites within the city which resulted in the diversion of resources from post-excavation to excavation work.

In 1999 Bristol and Region Archaeological Services were contracted to undertake a large-scale excavation in Upper Maudlin Street, just to the west of the sites excavated in 1973 and 1976. It was decided at that time to make funding available to complete the post-excavation work on the 1973 (upper) and 1976 excavations, assess and interpret the evidence from those sites and to produce a combined report on the results of all three excavations. It is that report which is published here.

Topography, Geology and Land Use

The three archaeological excavations reported here lie in an area that was outside the defences of the medieval city of Bristol, and some 450 metres to the north of the centre of the city defined by the crossing point of Bristol's four main medieval thoroughfares. The area was separated from the city by the tidal River Frome and its flood plain, a barrier crossed in the medieval period by the Frome, Monken, Needless and Pithay bridges leading from gates in the city wall. At various stages during the 19th and 20th centuries the river was culverted and it now flows unseen below the city streets.

From the River Frome the land rises to a height of between 60 to 70 metres to the north-west at Kingsdown, although the natural hill-slope is now largely obscured by modern office blocks, the enormous bulk of the Bristol Royal Infirmary and the Childrens' Hospital. The hill-slope stops short of the flood plain of the river at a curving, vertical, river-cut cliff face up to 12 metres high, the top of which slopes down from the south-west to the north-east.

The archaeological sites lie above this cliff face on what was, before post-medieval development, a gently sloping hillside below the steeper slope to Kingsdown which commences to the north of Upper Maudlin Street. Borehole and excavation data over the area covered by the sites has shown that the natural ground surface varies in height between c.22 metres above Ordnance Datum in the north-west to c.16 metres in the south-east.

The channel of the River Frome 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. Kingsdown is an area where Triassic strata overlie strata of the Quartzitic Sandstone Group of the Carboniferous system, the latter being a succession of rocks dipping towards the south-east at an angle of between 30 and 35 degrees. 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 coarse grained Sandstone in Keuper and the very coarse grained Dolomitic Conglomerate. The natural immediately below the excavated area proved to be highly weathered Triassic strata ranging in colour from reddish-brown to reddish-purple, its fissures being filled with a dense red-brown clayey sand.

In the mid 13th century members of the Franciscan religious order built their friary on the 150 metre wide alluvial plain between the Frome and the cliff face to the north-west. Generally their church and conventual buildings were confined to that area although excavations in 1989 towards the north-eastern, lower, end of the cliff showed that at least one of their buildings, interpreted as a guest-house or as lodgings for the 'custos' or warden, encroached onto the higher ground (see below).

The friary precinct incorporated part of the hillside at the top of the cliff, the precinct wall roughly following the line of the present Lower Maudlin Street to the north-east, Upper Maudlin Street to the north and Johnny Ball Lane (formerly Bartholomews Lane) to the south-west.

After the Dissolution of the friary in 1538 various phases of post-medieval building gradually infilled what had been open land within the precinct. In the area of the archaeological excavations the most notable post-medieval buildings, in terms of altering the topography and damaging the archaeological resource, were Pembroke Court and the Moravian Chapel complex, constructed in the second half of the 18th century, and the Welsh Baptist Chapel built in the mid 19th century. Many of the earlier post-medieval buildings fronting Upper Maudlin Street were removed

when the street was widened in the late 19th century.

The excavations reported here took place between 1973 and 1999, a period that witnessed great changes to the urban landscape of the area. There was wholesale clearance of the buildings which had accumulated in a haphazard fashion over the four centuries since the Dissolution, with the exception of the 17th-century 'Abbot's House'. The University of Bristol Dental School was extended on three occasions, resulting in the 1973 and 1976 excavations and recording work on the Moravian burial ground in 1993. The buildings between the Dental School and Johnny Ball Lane were replaced by a surface car park approached by an access road from the south-east, and the area was virtually cut in two by the access steps for a pedestrian subway beneath Upper Maudlin Street.

The Archaeological and Historical Background

The three sites excavated at Upper Maudlin Street produced evidence for the use of the area by man over six thousand years from the Neolithic to the present day. The following brief archaeological and historical introduction is intended to place the sites in their regional context.

The gravel terraces of the Bristol Avon have yielded numerous lower palaeolithic implements, predominantly hand-axes, especially from its lower reaches between Shirehampton and Avonmouth (Grinsell 1986a, 2). Evidence for Mesolithic and Neolithic activity is limited to chance finds of lithic material such as the flint blades and scrapers from the excavations at Tower Lane in Bristol (Boore 1984, 10). A number of Bronze Age implements have been found in the Bristol area and these include a small hoard of bronze axes from Coombe Dingle in Westbury-on-Trym parish (Hudd 1904, 118-121), three axes and a fragment of sword blade from the River Avon at Bristol Bridge (Pritchard 1904, 329-330) and a socketed axe and spear head from a site in Prince Street in the city (Tratman 1946, 174).

The evidence of Iron Age occupation is more substantial. Three hill-forts have been identified to the north-west of the city, grouped together on either side of the Avon Gorge: Clifton on the east bank of the river and Stokeleigh and Burwalls on the west. There are no records of any excavations at the Burwalls and Clifton hill-forts, but limited excavation at Stokeleigh has shown that its impressive defences date from between the 3rd and 1st centuries BC (Haldane 1966).

Although many Roman sites certainly remain to be found in the Bristol area, those that have been discovered and, in some cases, excavated archaeologically, provide us with clues to the region's Romano-British settlement pattern and economy.

Shortly after the Roman conquest of Britain a fort was established on an area of rising ground at the confluence of the rivers Trym and Avon, five kilometres to the north-west of the centre of the modern city of Bristol. Although the site of the fort has not been excavated, its location is attested by finds of first century military equipment and Claudian and Neronian samian ware and coins. It is possible that the Roman military presence there started in the mid-50s and formed the southern end of a ferry route across the River Severn to Sudbrook in Gwent. Now known as Sea Mills, the Roman settlement has been identified as a place called Abonae in the late 2nd-/early 3rd-century Antonine Itinerary. It is likely that the fort had gone out of use by AD 85 at the very latest and was superseded by a large civilian settlement covering an area of at least 10 hectares, its economy possibly sustained by the establishment there of a control post of the 2nd Augustan Legion. The town apparently fell into decline and was probably abandoned in the later 4th century (Ellis 1987).

Possible Roman farming settlements are known at Knowle West, Lawrence Weston and, on alluvial land reclaimed by the Romans from the River Severn, at Crook's Marsh Farm, Avonmouth. It seems likely that the aristocracy of the early Roman countryside was supported by a farming system comprising individual farms and small hamlets that continued the pattern of Iron Age farmsteads. Certainly the extensive farming settlement at Knowle West, which lies along the ridge of Lias limestone from Filwood Park to Inns Court, has recently been shown to have Late Iron Age or very early Roman origins. It was occupied throughout the Roman period, with the construction of stone buildings in the mid 3rd century which continued in use into the 4th century (Jackson forthcoming b). However, the best known and recorded Roman sites are the fully Romanised farms or villa buildings that generally date from the mid to late 3rd century. These are known at Brislington to the south-east of the modern city and at Kings Weston to the north-west, together with a possible villa at Bedminster Down to the south.

Another high status site was at Gatcombe, to the south-west of Bristol. Excavations in the 1970s were concentrated on the farm buildings, the main villa complex having been destroyed by the construction of a railway cutting in the 19th century (Branigan 1977). The whole site was provided with a strong defensive wall, perhaps to guard against barbarian attacks in the 4th century. Other villas do not have such a large wall around them and a suggested alternative use of the site may have been as a state-controlled depot for the reception and processing of agricultural produce and metals (Esmonde Cleary 1989, 48).

Although the most obvious sign of Roman economic influence in the area was their commercialisation of the agricultural landscape, there is also considerable evidence of their exploitation of mineral resources. At Charterhouse on the Mendip Hills, lead and silver was mined, initially under Imperial control, and the importance of the settlement is shown by the presence of a small fort and amphitheatre. Iron working has been noted at Gatcombe and at Stonehill, near Hanham. There is evidence of small-scale metal working at Knowle West and it is possible that coins were being counterfeited there in the late 3rd century; coin counterfeiting was certainly taking place at nearby Lyons

Street	National Grid Reference	Description	Reference
All Saints Street	ST 58907319	Coin of Maximianus found 1900.	Pritchard 1900, 265-6.
Baptist Mills	ST 604747 area	Spread of (?) 3rd- to 4th-century pottery, flue tiles, mortar and animal bones found 1889-91.	Ellis 1893, 160-1
Bell Lane	ST 58737313	Two coins of Maxentius found 1808.	Seyer 1821, 208.
Bridge Street	ST 590730 area	Unspecified coins found prior to 1891.	Ellis 1893, 163.
Bristol Bridge	ST 59017285	Small quantity of pottery, including Samian, found in excavation in 1981.	CMAG Acc. No. 48/1981
Bristol Castle	ST 59367323	A few sherds of pottery found in excavation in 1969.	Ponsford 1971, 6.
College Green	ST 584727 area	Unspecified coins found north of Cathedral in 1865.	Nicholls & Taylor 1881, 24.
Floating Harbour	ST 5872 area	Coins of Julia Maesa and Constantine II found *c.*1890. Iron Age or Romano-British coloured glass bead.	Martin 1897, 125. Tratman 1946, 179.
Mary-le-Port Street		A few finds of Roman tile, brick and pottery, fragments of ?Roman glass beads,window glass and two coins of the third century found in excavation in 1962-63.	Watts & Rahtz 1985, 185.
Montague Place	ST 585737	Coin of Constantine found in 1780.	Barrett 1789, 29.
Peter Street	ST 59127313	Mid 1st-century bow brooch, flue tile fragment, coin of Constantius II and 1st- to 4th-century pottery found in excavation.	Boore 1982, 8. CMAG Acc. No. 57/1975
Pithay	ST 58987315	Coin of Gallienus found 1907.	Pritchard 1907, 228.
Pylle Hill	ST 598720 area	Unspecified coins found prior to 1891.	Ellis 1893, 163.
Redcliff Street	ST 59107248	A few sherds of pottery found in excavation in 1980.	CMAG Acc. No. 107/1980
Redcliff Street, Canynges House	ST 59087252	Coin of Probus found in excavation in 1984.	CMAG Acc. No. 21/1983
Royal Fort	ST 583784	Coins of Tetricus, Constantine and Constantius found *c.*1760.	Barrett 1789, 29.
St. Augustine's Parade	ST 58487280	Cobbled track or causeway, pottery, brooch and coins allegedly found during construction of the Hippodrome in 1912.	Davies 1927, 42; Jones 1946, 12 Tratman 1962, 164.
Tower Lane	ST 58937313	Coin of Julia Maesa found 1900.	Pritchard 1900, 265-6.
Wade Street	ST 59747357	Two lead pigs of Antoninus Pius found on former bank of River Frome in 1865.	Page (ed) 1906, 342.

Table 1 Roman finds in Bristol (after Russell & Williams 1984).

Court Farm where a number of coin moulds have been excavated. Stone from Dundry Hill was certainly being quarried during the Roman period as it was used for the pilasters of the north gate of the Roman fort at Cardiff, as well as for an altar discovered at Sea Mills. It has been suggested that Roman coal-workings in the north-east Somerset coalfield are evidenced by the distribution of coal in Roman sites in north-east Somerset and south-west Gloucestershire (Hebditch & Grinsell 1968, 26-27).

Bristol's early historians, William Barrett and Samuel Seyer, writing in 1789 and 1821 respectively, tried to argue a Roman origin for the city of Bristol in order to provide it with an historic pedigree comparable with its near neighbours Bath and Gloucester. As recently as 1881 Nicholls and Taylor stated in their book *Bristol: Past and Present* that Bristol had been 'fortified so near the close of the Roman era in Britain ... that it is not surprising that Bristol cannot - like her sister city [Bath] - point to her architectural relics as proof of her Roman origin'.

Certainly Roman finds have been made within the modern city of Bristol and these are listed in Table 1. Most of them were chance finds and some, especially the coins, could have been brought into the city as souvenirs at a later date. Nevertheless, the apparent concentration of finds from archaeological excavations on the ridge between the rivers Avon and Frome might suggest the presence of a farming settlement there during the Roman period. In particular the pottery finds from Peter Street, Mary-le-Port Street, Bristol Castle and from the opposite bank of the River Avon at Bristol Bridge taken together seem too numerous to have been re-used items imported into the area during later occupation.

Despite extensive archaeological excavation and documentary research, the early details of Bristol's history remain obscure. What is known is that Bristol was founded during the Saxon period in a superbly defensible and commercial position at the lowest fording or bridging point on the River Avon, where it was protected on three sides by the confluence of the rivers Avon and Frome. The original Saxon burh, or fortified township, was sited at the narrowest point between the two rivers on a 20 acre ridge of Triassic sandstone which rose some 10 to 15 metres above the surrounding marsh.

The surviving written records contain no mention of Bristol until 1051, when it appeared in the Anglo-Saxon Chronicle as a port used by sea-going ships sailing to and from Ireland (Lobel & Carus-Wilson 1975, 3). It seems likely that coins were first minted in Bristol c.1010, in the reign of Aethelred II, although the first definite evidence is the existence of a number of silver pennies with the mint mark *Bricgstow*. All belong to Cnut's first issue and are ascribed to the years 1017-1023 (Grinsell 1986b, 4; Hinton 1984, 151). Coins could only be minted in a burh so by that time Bristol probably possessed a market and some degree

of trade (Loyn 1962, 137-8).

As it is clear that the Bristol area was virtually aceramic before c.940, and even after that pottery was sparse until the late 11th and 12th centuries, it is unlikely that archaeology will be able to prove the existence of a Saxon settlement at Bristol pre-dating that indicated by the documentary and numismatic evidence (Watts & Rahtz 1985, 16). However, archaeological excavation has shown that the original late Saxon settlement was concentrated close to the site of Bristol Bridge and that it spread along the crest of the ridge between the present Old Market Street and at least as far west as the former Mary-le-Port Street. Excavations at the castle, Peter Street and Mary-le-Port Street have produced ample evidence of pre-Conquest occupation in the form of timber buildings, fences, pits, pottery and metal and other objects of both Viking and late Saxon type (Ponsford undated, 145). Late Saxon settlement also seems to have existed in the area of Broad Street and Tower Lane, north of the centre of the medieval town, where late 10th- and early 11th-century cess-pits, postholes and rubbish pits were found during excavations between 1979 and 1980 (Boore 1984, 11).

A late Saxon origin is also suggested for the area that was later to become the site of St Augustine's Abbey to the north-west of the medieval town. A sculpture known as the 'Harrowing of Hell', which is believed to date from the first half of the 11th century, was found beneath the floor of the abbey's chapter house (Dickinson 1976, 121). The possibility of Saxon occupation in that area is supported by finds made during the archaeological excavations in 1983 and 1984 just to the south of St Augustine's Abbey, at the church of St Augustine-the-Less. There the earliest archaeological deposits were six adult burials in cist graves and another burial in a body-shaped grave with a head and shoulders profile. These were interpreted as Saxo-Norman in date (Boore 1986, 211).

Documentary sources provide some information on the development of Bristol immediately after the Norman conquest. It seems that by 1067 Bristol had become a strongly fortified burh for in that year its citizens successfully resisted an invading force from Ireland led by the sons of Harold Godwinson, which had failed to take the defences (Lobel & Carus-Wilson 1975, 3). The Domesday survey suggests that in 1086 Bristol was a flourishing settlement and reveals that, while it was situated within the royal manor of Barton, it had a distinct entity with its own community of burgesses who answered for it to the King (Whitelock 1961).

During the Norman period there was a shift of emphasis in the location of the settlement due to the establishment of an eleven acre fortress on the east/west ridge, the site of part of the late Saxon settlement. This meant that the town now became largely located at the west end of the ridge on the lower ground at the confluence of the rivers Frome and Avon and during the early 12th century a stone defensive wall was built around the town (Ponsford undated,150).

At the close of the Norman period Bristol was described as 'almost the richest city of all in the country, receiving merchandise by sailing-ships from lands near and far. It lies in the most fertile part of England and is by its very situation the most strongly fortified of all its cities' (Potter 1955, 37).

It can be seen from this description that Bristol's castle, which may have started as a ringwork and was later reinforced with a large motte and ditch, was one of the finest in Norman Britain. This was due to the extensive building work carried out in the late 11th and early 12th centuries initially by Robert FitzHamon and afterwards by Robert, Earl of Gloucester, the bastard son of Henry I (Lobel & Carus-Wilson 1975, 4). The substantial alterations to the castle are evidence of the prominent part played by Robert, Earl of Gloucester, in the wars of Stephen's reign. By 1147 the motte had been largely superseded by Earl Robert's massive keep which was some 27 metres square and built of stone quarried at Caen in Normandy. It was said that he had set aside a tenth of the Caen stone intended for the keep of Bristol Castle towards the building of a Lady Chapel in the Benedictine priory of St James which he had founded in about 1129 (Dugdale 1823, 335). The site Earl Robert had chosen for St James' Priory was on open level land on the north bank of the River Frome and within sight of his castle.

Of critical importance to Bristol's commercial prosperity was its location at a natural fording and, later, bridging point on the tidal River Avon in an area where there was ample space available on the river banks for the wharfage of ocean-going vessels and their construction in ship-building yards. Bristol Bridge, originally built of timber but replaced c.1297 by a stone-arched structure, crossed the River Avon to the south of the town, connecting it with the independent community of Redcliffe. The smaller River Frome was crossed to the north-west of the town by the Frome Bridge, probably first built in the late Saxon period in order to complete the north-south route through the town from Gloucestershire into Somerset.

The original course of the River Frome is difficult to determine but it is thought to have flowed into the Avon just below Bristol Bridge (Lobel & Carus-Wilson 1975, maps 2 & 3). The route of the Frome was changed c.1240-7 by the excavation of a new channel, a massive feat of civil engineering, which diverted the river and straightened its course to the south-west. This made more land available to the town enabling it to expand over an area of marsh previously cut by the Frome. That expansion was protected by the construction of a defensive wall, the Marsh Wall, while, by the mid 13th century, the area of Redcliffe to the south of the town had been enclosed by the Portwall. Part of the new circuit of defences lay along the south bank of the new course of the Frome and the Frome Gate was built at the point where the Frome Bridge crossed the river.

A number of religious houses were sited to the north of the Frome during the 12th and 13th centuries and their landholdings eventually formed a continuous chain stretching for almost a mile from St Augustine's Abbey in the west to the Dominican Friary in the east. Among these were St Bartholomew's Hospital, founded c.1231-4 by Sir

John de la Warre (Price & Ponsford 1998, 19) and the Franciscan Friary, the latter being of particular importance in the context of this report as the Upper Maudlin Street sites lay within its precinct. The assumed line of the precinct wall separating the friary from the lands of St Bartholomew's Hospital ran immediately to the west of Site 3 while that separating the friary from the Augustinian nunnery of St Mary Magdalen (founded shortly after 1170) followed the line of Upper Maudlin Street to the north of all three sites.

The Franciscan Friary (Greyfriars)

The religious order of mendicant friars known variously as the Friars Minor, the Franciscans or, after the colour of their habits, Grey Friars, first came to England in the 1220s. The first Franciscans to arrive in England were four clerics and five lay-brethren led by Brother Agnellus of Pisa, the first houses of the order being founded at Canterbury, London and Oxford (Cuthbert 1903, 132). We do not know exactly when the Franciscans established a house in Bristol but on 21 October 1234 Henry III commanded the Constable of Bristol to allow the Friars Minor seven pieces of wood for burning, to be taken from the Wood of Furch, i.e. Kingswood (PRO CCR 1234-7, 4). So we know that sometime before 1234 a house of the friars had been founded in Bristol apparently at the expense of the townspeople, and as the order's chief house for South Wales and the south-west of England (Dawson 1981, 23). We do not know the location of the first Franciscan settlement but it has been suggested by Weare (1893, 15) that it was a temporary establishment, perhaps within the walls of the town.

Under William of Nottingham, who was Provincial Minister between 1240 to 1254, the friary was moved to an area on the north bank of the River Frome (Cuthbert 1903, 182), the land for the house possibly having been given by the Benedictine priory of St James. This new site lay within the area now bounded by Upper Maudlin Street on the north, Lewins Mead on the south, Lower Maudlin Street on the east and Johnny Ball Lane on the west. The site is divided by a cliff up to 12 metres high running approximately east/west which had been cut by the River Frome before it was diverted to its new course in the 1240s. It was on the level area between the cliff and the Frome that the friary was built. It is assumed that the higher ground north of the cliff, and also the majority of the eastern part of the site, was cultivated by the friars. The site had the advantages of an excellent water supply provided by piping water through a conduit from springs higher up the hill to the north and good drainage to the river.

The friary was dissolved by Henry VIII in 1538 and what we know about its history and the layout of its church and conventual buildings is derived almost entirely from subsequent documentary references, observations of standing structures by antiquarians in the 19th and early 20th centuries and archaeological excavations from 1973 onwards.

It is likely that the friary church was built directly adjacent to the street frontage of Lewins Mead as it was the custom of the order to allow easy access for members of the public to their churches (Martin 1937, 29). All that is known about the interior of the friary buildings is derived from two wills (Martin 1937, 220). In 1403 William Godewyn asked to be buried in the Chapter House before the image of Mary, while John Williams in 1525 requested that he should be buried at the Greyfriars before the image of Jesus.

William Worcestre described the friary buildings in c.1480 and gave the following measurements for the various structures (Harvey 1969):

Choir length 28 yards (25.20 metres); width 9 yards (8.10 metres)

Nave length 28 yards/31 yards (25.20/28.40 metres): possibly the internal and external dimensions; width 27 yards/30 yards (24.30/27 metres): possibly the internal and external dimensions

Square bell-tower sides 4 yards (3.60 metres): possibly the internal dimensions.

Worcestre also recorded that there were four arches in each of the north and south aisles of the nave. The almost square plan of the nave suggested by Worcestre's measurements is unusual.

An entry in the Great Red Book of Bristol gives a clue as to the location and extent of the friary cemetery (Veale 1951, 104). The will of William Pownam, dated 30 November 1454, notes that four shops were situated in Lewins Mead between shops belonging to the master of the Hospital of St Bartholomew on the west and the cemetery of the Friars Minor on the east. This implies that the cemetery occupied all the area of the Greyfriars precinct between the western boundary wall bordering the lands of St Bartholomew's Hospital and the friary church.

The Great Red Book also records a dispute between Thomas Norton and William Spencer in 1477/78 which gives details of repairs to the friary church (Veale 1953, 68). '*... the said William Spencer hath doon many charitable and acceptable dedis to Almighti God within the saide toune and Countreys thereto adjoynaunte as in newe makinge of the Quere and body of the Church of the Grey Freris in Bristowe Repaireng of al the Remenaunte of the howsinge and Bildings of the saide Frerys aswell as the tenements and houses of diverse Chaunterys there ...*'

Much of the friary was demolished shortly after its Dissolution in 1538 and the stone and timber from it was used to repair buildings in the city. However, some parts of the fabric survived and were incorporated into later buildings on the site.

Pryce (1861, 53) records that in 1851, during alterations to a warehouse, the upper portion of a square-headed Perpendicular English window was uncovered. During alterations in the north-east corner of the same warehouse human bones and the remains of oak coffins were found and, later in the 1870s, a piscina was dug up (Pryce 1861,

53; Weare 1893, 24-25). It is possible that the window may have been part of the church and that the burials lay within the church rather than in the friary cemetery.

A building at the foot of the steps leading from Greyfriars Lane to Blackfriars Lane survived until the early part of the 20th century. A brief description, accompanied by some sketches, is given by Weare (1893, 33) and a drawing of the building, which had been converted into two houses, is provided by Stone (1909, 306). It measured 31 feet 6 inches (9.6 metres) by 11 feet 6 inches (3.5 metres), was 29 feet (8.85 metres) high and the walls were 2 feet (0.6 metres) thick. At the back was an outer hall where steps gave access from the ground floor to the higher level. A floor divided the original building into two apartments, the upper one being reached by stairs which were lighted from the east by a small window, and in the west wall two pointed Gothic windows of late 14th-century type provided light to the apartments. The roof was pointed or wagon-headed. An original stone chimney was preserved on the inner side of the west wall and on the roof was a small air inlet. Another window was placed in the east wall of the lower apartment. The function of this building is unknown, but Weare suggested that it might have been the friars hall and local tradition has it that it was the friars dormitory (Bristol and Clifton Guide 1906, 146).

During the demolition in 1892 of a house at the corner of Lewins Mead and Lower Maudlin Street an ancient gateway was discovered (Weare 1893, 28). The archway was sufficiently large to admit the passage of a cart, but no further details are given, although Weare suggested it might have been the eastern gateway to the precinct.

In 1989 the possible precinct wall between the Franciscan Friary and St James Priory was recorded in a pipe trench c.6 metres east of Deep Street. The wall, which was aligned on Lower Maudlin Street and built mainly of Brandon Hill Grit was noted at a depth of 1.5 metres from road surface level (Ponsford *et al* 1990, 181-182).

Large-scale excavations were undertaken on the site of the friary buildings in 1973. The detailed results of this important excavation remain unpublished but have been summarised in a booklet produced by the City Museum and Art Gallery (Ponsford 1975; Bristol Urban Archaeology Database BUAD event no. 317). An area of approximately 1,000 square metres to the east of Greyfriars Lane was investigated, with a watching brief being kept during redevelopment on the area west of the lane. An interpretation of the medieval foundations uncovered suggests that they were the remains of the church, cloister and chapter-house. Two phases for the construction of the church and conventual buildings was suggested, the earliest dating from the 1240s to 1386. In the second phase the first church was demolished and replaced by a more elaborate church, a cloister walk was constructed, the chapter-house was extended to the east and various other alterations were made. It is now possible to reconstruct approximately two-thirds of the friary plan from excavated and documentary evidence.

The excavation showed that before the construction of the friary, much of the area had been raised by dumping about a metre's depth of layers of red rock and clay over the marshy alluvial deposits. It is likely the dumped material derived from the excavation of the new channel for the Frome in the 1240s. There was no evidence of any pre-friary occupation on the site and the first signs of occupation of the friary were fragments of wood and leather found on the surface of the marsh clay.

Further archaeological excavations were carried out within the friary precinct at Deep Street in 1989, to the north of the 1973 site and just to the south of the Upper Maudlin Street sites reported here. The excavation was adjacent to one of the few buildings of any antiquity to survive within the friary precinct, now called 'The Abbot s House', and considered to date to the 17th century (Plate 1). Again the results of this excavation remain unpublished but have been summarised by the excavator (Ponsford *et al* 1990, 180-181; BUAD no. 444).

The west end of a ground floor hall measuring c.5.5 metres north/south by 8.55 metres was found. It had been constructed on a terrace cut into the bedrock and was founded on a slightly raised platform. Its north wall continued under a standing medieval building while the south wall had been largely destroyed by a modern revetment wall. The stonework was of Brandon Hill Grit, Pennant sandstone and oolitic limestone. A fireplace of pitched Pennant and with a limestone roll-moulded surround measuring 1.54 by 0.9 metres was built into the west wall. The inside walls of the fireplace were covered in a cream-plaster. East of the fireplace was a well-built stone-capped drain which terminated in a circular head and ran towards the south-east. In the west wall two sockets may have held supports for benches. A floor foundation of crushed oolitic limestone partly overlay the drain and elsewhere there were fragments of Pennant flooring. A shallow north/south gully may have held the stone step for a dais at this west end. The hall is provisionally interpreted as the lodgings of the *'custos'* or warden and/or the guest-house of the friary.

In the 14th century the fireplace was blocked and replaced by an open hearth commencing 2.5 metres to the east, measuring 2 metres by 1.5 metres. The hearth-surround was built of re-used oolitic limestone with a square-chamfered moulding, while the surface was composed of over 400 edge-set re-used plain and decorated floor tiles. Low walls were built against the north and south walls, probably to support wooden benches. During this period the room may have been a refectory.

East of the standing building, the north wall continued for 6.4 metres on a second terrace, but appeared to be an extension as it was of an inferior build. The overall length of the hall with this addition was now 22 metres. Two blocked features were noted in the north wall. The east end was divided north/south by a partition wall. To the east there was more disturbance, perhaps caused by frequent maintenance of the friars' conduit pipe, known to have run through the area as late as the last century. A pitched-stone

Plate 1 General view looking north showing the 1973 excavations. Part of the 'lower' site around the friary complex can be seen in the bottom of the photograph. Site 1 is in the upper centre of the photograph. The low cliff is defined by the high wall running east/west on the left. The 17th century Abbot's House (unrestored) is the small white building just beyond the wall. The back of the Welsh Baptist Chapel is on the extreme left which, together with the complex of buildings to its right, occupies part of Site 3.

hearth in the east room overlay a pit and a stone drain which ran along the outside of the wall and then south, perhaps forming part of a garderobe from the earlier phase. The extension may have served as part of the service rooms for the refectory, but the relationship with the hall proper was obscured by the standing building. There is evidence to show that the building was demolished soon after being acquired by the Corporation of Bristol in 1541.

The standing building, which is of about 17th-century date, was built on the demolition levels of the medieval friary, and is three and a half storeys in height. The building retains few datable features, but the proportions, roof-pitch, a bull-eye window and an ovolo-moulded beam with scroll stops on the first floor together confirm its date. There was also a cellar.

To the west, a depth of redeposited natural soil over the demolition rubble was turned into gardens measuring 8 metres by 6 metres, and a number of post-holes, pits and a linear spread of rubble were recorded. Subsequently, about 12 features composed of squares, rectangles and circles, the most complete measuring 0.9 by 0.8 metres, were defined by cattle cannon-bones to form borders formally arranged on the north, west and south sides; they may have functioned as a herb garden. A large pit 2.4 by 2.3 by 1.2 metres in depth had a drain running into it, and may have been a cistern, pond or fountain. In the 18th century the garden became less formal, and it was also disturbed by 19th-century drains.

The Greyfriars Conduit

The friary was supplied with fresh water from a spring which rose in the area of what is now Bedford Place, somewhat to the north of the precincts. It was conveyed to the friary by means of a pipe or conduit.

In a petition by the friars to Edward III is a recital that the land on which the spring lay ('*... a rood of land and the*

spring and conduit on it') had been given to them during the reign of Edward I by Joan, the widow of John de Lediard (PRO CPR 1370-74; Weare 1893, 47). This grant would have been made after 1277 in which year John de Lediard was the Mayor of Bristol and the petition to Edward III in 1375 seems to have been to confirm the friars claim to the title.

Weare (1893, 32) states that the spring water came to the surface after passing '*through beds of ironstone under the gardens of houses in Bedford Place*'. From the spring the pipe ran southwards. A survey dated 1865 of part of the route of the conduit survives (BRO F.C. Jones Collection). That shows two cisterns on the course of the conduit below what is now the site of the Bristol Royal Infirmary, a cistern and trap under the north side of Upper Maudlin Street and a further large cistern just to the south of the street, the latter now presumably lying beneath the widened street. Part of the conduit, standing to head height, is apparently preserved under Upper Maudlin Street. Weare records that '*the main reservoir is constructed about 93 feet from the pavement on the north side of the street, and there are three filter beds between it and the street. There is a branch subway, about 330 feet in length, with a reservoir and two filter beds*'. The 'branch subway' may have been part of the conduit constructed in the 14th century to supplement the water supply to St James' priory which had previously been served by a well in St James' Barton (Bond 1993, 58).

From the south side of the street it ran at an angle under the Moravian chapel, around the north and west sides of the Moravian burial ground, below Blackfriars Lane and then south down Greyfriars Lane to Lewins Mead. After the Dissolution the conduit passed into the ownership of All Saints parish and a document of 1585 then referred to it as '*Alhallou Pipe*' [i.e. Allhallow's or All Saints Pipe). The conduit was extended and taken across the Frome Bridge into the city.

The Mayor's Audit Books contain a number of entries concerning the repair of the medieval conduit, and it survived until 1602 when it was replaced by a new lead pipe. Two consecutive entries in a 17th-century City Rent Book almost certainly refer to the conduit which had been granted to the Corporation of Bristol during Edward VI's reign in 1549 (BRO 04041, p.84):

'*Richard Davies baker holds one peece of ground and a spring of water and a conduite, by deed dated 23rd November 4 Edward 6 rent -/5/-.*

Mrs Joane Baldwin ... One Orchard next to the Grey friers with a Watercourse that runs through it by deed dated 23rd Nov:4 Edwd Sixte in feefarme at the sum of 5/- payable at Michalmas'.

A report in the *Bristol Times and Mirror* newspaper dated 22 April 1892 probably referred to part of the conduit when it described the discovery of an underground passage on the north side of Lewins Mead. '*... A subterranean way or passage from an ancient messuage situated in a place called "Friars' Court" (which messuage is of much later date than the first mentioned building), to some part of a place known as the "Whitefriars" at the extreme end of which is a small court of houses called "Friars' Court ".*

In August 1993 a watching brief was kept during redevelopment of the Moravian burial ground to the south of Upper Maudlin Street (BUAD no. 471). Then part of the conduit pipe was found together with a cistern probably associated with the Moravian school.

The Moravian Chapel and Grounds

On 23 May 1756 the Diary of the Bristol Congregation of the Moravians recorded their intention of purchasing the '*Coles-Estate in the Black Fryers*' for the site of their new chapel '*the present Hall in Great Garden being too small, and the situation very inconvenient*'. (Moravian Archives DIGB4Bri a.1.).

On 19 June 1756 the Coles Estate was purchased for £500. The Chapel was designed by one of the Moravian members, Frederick Marshall, and its position was determined '*... which will make it as publick and as private as We please - and also allow ground enough for a Burying-Ground, which Br. Nyberg particularly insisted upon, as a great Article for a Congregation*'. Work on building the chapel commenced on 24 August 1756 and the work was completed and the chapel consecrated on 25 June 1757.

A ground plan drawn on the trust deed shows four houses fronting Upper Maudlin Street on the west side of the plot, while on the east was a garden approached by steps leading down from the street. The chapel, on an east/west alignment, was set back from the street with a hall and school at the west end. To the east a passage led from the end of the chapel to the Minister's House, to the south of which were the Sisters' House and the Girls' School facing on to the rectangular Burial Ground. To the south of the Burial Ground and bordering Blackfriars Lane were, from west to east, the Bretherens' House, a house and a cooperage.

Following alterations to the roads at the foot of St. Michael's Hill in the late 1860s and early 1870s Upper Maudlin Street was widened in 1871 resulting in the removal of the fronts of the houses adjoining the chapel and most of the garden between the chapel and the street (Latimer 1902, 441). A ground plan of the premises dated 1887 showed only two buildings, described as shops, fronting the widened Upper Maudlin Street. The old Minister's House had been extended and a shop, later converted to a new Minister's House in 1855, built to its north (BRO Building Plans 15, folio 46). Stables had been constructed down the west side of the burial ground and the house and cooperage on Blackfriars Lane had been replaced by a Day and Sunday School, which were opened on 29 April 1864 (BRO Building Plans 6, folio 76).

The chapel became unsatisfactory in its original state and permission for extensive rebuilding was approved on 1 October 1896 (BRO Building Plans 32a, folio 73). It seems that the foundation base of the original was kept, but the lower ground floor was used as schoolrooms and a vestry while an upper floor served as the chapel.

All these buildings were finally demolished between 1972 and 1973 for the building of the new car park to the Dental Hospital and Infirmary, later replaced by extensions to the University of Bristol Dental School.

The Moravian burial ground is described in a report to the General Board of Health published in 1850 (Clark 1850, 164). The burial ground covered an area of about 1,000 square yards and on average there had only been five burials each year giving a total of around 500 interments by that time. It was apparently '*in beautiful order ..., a pattern for everything of the kind. The turf is well kept, the footways neatly paved, a border of flowers around the yard, the stones are all flat, of uniform size and uniformly laid*'.

The burial ground remained largely untouched until August 1993 when groundworks commenced on the site for a further extension to the Dental School. Unfortunately, the status of the site as a former burial ground was not recognised prior to the granting of planning permission although Bristol and Region Archaeological Services staff kept a watching brief on the ground disturbance (BUAD event no. 471).

Seven parallel and adjacent trenches were dug across the site during these works. These were between three and four metres deep and encountered a number of features, the majority being burial shafts, vaults or earth dug graves related to the burial ground. These were generally brick built and contained articulated human remains. One vault in the north-east corner of the site contained four inhumations and some of the shafts were between three and four metres deep. The remains of over 200 individuals were found and these were reburied at Canford Cemetery. Considerable quantities of coffin furniture were also recovered. A wall tentatively identified as the boundary wall of the burial ground was observed.

THE ARCHAEOLOGICAL EXCAVATIONS

Note: True north is approximately 28 degrees east of the general north/south building line of the properties fronting Upper Maudlin Street. To avoid the use of long definitions of orientation in the site records, in this section and in the main excavation report north is taken to mean a line parallel to this general north/south building line.

Site 1 and Trenches 5J and 5W (Fig.1; NGR ST 58720 73420)

The Background to the Excavations

In 1973 a large area of land between Lewins Mead and Upper Maudlin Street was cleared of derelict warehouses and industrial premises prior to redevelopment. For the reasons given above, it was known that the Franciscan friary had occupied the site during the medieval period, although the precise locations of the church and conventual buildings were not known. Realising the great importance of the site, Michael Ponsford the Field Archaeologist then based in Bristol City Museum, obtained permission from the developer, Laing's Development Company, to carry out an archaeological excavation.

The initial aims of the 1973 'Greyfriars project' were:

a) To determine the degree of survival of archaeological deposits and features associated with the friary and investigate any pre-friary occupation.
b) To locate and identify the friary buildings and obtain a detailed ground plan of the monastic complex.
c) To recover as much information as possible concerning the date of the buildings and their sequence of construction.
d) To preserve by record the archaeological resource that would otherwise be totally destroyed by the proposed development.
e) To compile a detailed history of the site from contemporary records and to integrate this with the excavation findings.

Bearing in mind the limited funding and time available for such a large project, it is a credit to those involved that these aims were largely achieved. Following the excavations, Dr. Roger Price undertook research on the history of the friary and the post-Dissolution development of the area and the results of that research are held in typescript form in the City Museum archives.

Excavations commenced on the 15 January 1973 and over the next few weeks a series of trenches were dug in strategic parts of the site with the intention of locating the foundations of the friary buildings. Initially work was concentrated on three areas on the southern portion of the site on what, in medieval times, had been a relatively flat area on the north bank of the River Frome - the supposed location of the friary church and cloisters. The state of preservation of the friary buildings below ground proved to be so good that a large-scale area excavation was undertaken between May and July 1973.

Meanwhile, on 2 April, archaeological work started on the upper, northern part of the site, in the area previously occupied by the Moravians, between the lane known as Blackfriars and Upper Maudlin Street (Plate1). It is this supplementary work which is described as Site 1 and reported on in full below (see pp44-71).

The aims of this further work around the foundations of the demolished Moravian chapel were twofold: to trace the route of the water conduit serving the friary and locate any friary buildings or evidence of the friary gardens that might exist in the area.

The conduit was found but an unexpected bonus was the discovery of Romano-British occupation. Consequently the initial two trial trenches were extended into an area excavation: known as Area 5 of the Greyfriars project.

Following the excavation two office blocks called Greyfriars and Whitefriars were constructed on the Lewins Mead frontage of the site, while an extension to the Bristol Dental School was built on the Upper Maudlin Street frontage, completely destroying the area of Site 1.

Excavation Methods and Recording

Initially, only two trenches, called J and K (later re-named 5J and 5K), were excavated on the upper site, trench J being within the Moravian school building on the north side of Blackfriars Lane and trench K immediately outside and parallel to the south wall of the chapel. Due to the occurrence of Romano-British finds in trench K, it was decided to open up an irregularly shaped area within the chapel and to its east.

In the context of the Greyfriars excavation as a whole, the upper area in and around the Moravian chapel was designated Area 5 which, for ease of recording, was divided into five sub-areas: 5K, 5M, 5N, 5O and 5V. In addition to trench 5J already referred to above, two other small trenches were excavated: 5L to the north of the chapel and 5W to the south of the main area excavation. The location and approximate dimensions of the eight trenches and sub-areas are given below:

5J

Located within the Moravian school building which lay between the Moravian burial ground to the north and Blackfriars to the south.

Initially measuring 18.4 metres by 6 metres only two adjoining areas, trenches 5J1 and 5J2, were excavated through archaeological deposits and these covered approximately 6.4 metres east/west by 4 metres north/south.

5K

Running immediately south of and parallel with the south wall of the Moravian chapel. Linking with sub-areas 5V to the north and 5M to the east.

Dimensions: 10.8 metres east/west by 2.6 metres north/south.

5L

Next to the north-east corner of the chapel and including part of the north wall of the chapel.

Dimensions: 3.6 metres east/west by 0.8 metres north/south.

5M

Running immediately east of and parallel with the east wall of the chapel and linking with the east end of sub-area 5K.

Dimensions: 4 metres east/west by 6.8 metres north/south.

5N

Within the north/south walls of the Minister's House to the east of the chapel, its south-west corner linking with the east end of sub-area 5M and its north-east corner linking with sub-area 5O.

Dimensions: 8.8 metres east/west by 9 metres north/south.

5O

A small area linking with the north-east corner of sub-area 5N.

Dimensions: at most 1 metre east/west by 4 metres north/south.

5V

Within the chapel to the north of and adjoining sub-area 5K. Its east end adjoined sub-area 5M.

Dimensions: 12 metres east/west by 4 metres north/south with an extension 4 metres east/west by 2.8 metres north/south in its north-west corner.

5W

A small trench 10 metres south-east of the south-east corner of sub-area 5M.

Dimensions: 3.6 metres east/west by 2.6 metres north/south.

Trenches 5K, 5L, 5M, 5N, 5O and 5V have been grouped together to form Site 1 in the following excavation report, Trenches 5J and 5W are described separately.

The method of excavation adopted on the Greyfriars site generally was to use a 180 degree mechanical excavator to strip away the modern layers of make-up and demolition debris, and some of the later post-medieval deposits. Once archaeological deposits and structures were encountered these were cleaned and excavated by hand. On the Moravian chapel site most of the area selected for investigation was excavated to natural and the archaeological deposits removed. The area available for excavation to the south of the chapel was restricted by the presence of the burial ground and overall the area that could be excavated was limited by the funds and time available for the project.

The archive from which the interpretation of the site is derived takes the form of two loose-leaf site notebooks, site plans, section drawings, photographs and finds.

The hand-written site notebooks, apparently kept by the Director and a number of his staff, contain brief descriptions of the areas excavated, sketch plans and sections, ideas on the interpretation of the site and lists of contexts, features and small finds. It is over a quarter of a century since the excavation took place and the standard of record keeping, while adequate by standards of the day, falls below that required of current archaeological projects.

In particular, the context records, of crucial importance to our understanding of the site, give only a brief description of each context and, although generally relating contexts to each other, often fail to locate the context within the excavated area. Unfortunately, the positions of contexts were not always marked on the site plans and, hardly ever, on the section drawings. The same problem applies to the list of excavated features although generally, but not always, the features were at least identified on the site plans.

Nevertheless, a close study of the archive has enabled the majority of the contexts and features to be identified and located. However, some have eluded identification and are therefore omitted from the following excavation report.

The site was recorded by context and feature. Some 537 contexts were identified over the whole site of which 142 were assigned to Area 5. These contexts were given a

running alphabetical code: AA, AB, AC and so on. Additionally, features such as walls, pits, gullies and post-holes were given a number preceded by a letter or letters, e.g. W9 (wall 9), P26 (pit 26), PH1 (post-hole 1), etc. Contexts sometimes relate to a particular feature, e.g. contexts OY and PL are the fills of P26.

In order to distinguish the contexts and features on Site 1 from those on Site 2, which were unfortunately given a similar series of alphabetical and numerical codes, they have been given a suffix number based on the year of the excavation, for example AA/73 and W9/73.

The site was planned at a scale of 1:20 based on a fixed grid which was related to the foundation walls of the Moravian chapel. Generally the heights of contexts and features in relation to each other and Ordnance Survey Datum were not recorded.

Sections were drawn at a scale of 1:10 but the positions of the sections were often not located on the site plans and the contexts and features recorded on the sections drawings were given letters and numbers which bore no relationship to the lists of contexts and features contained in the site note books.

The site was recorded photographically using 35mm colour print or slide film but little of the photographic archive could be traced.

Finds were cleaned and marked individually with the Bristol City Museum accession number and the site context code. They were then bagged and boxed by find type and context for storage purposes.

Special finds were given an individual special or Small Find number and listed and described in the site note books. The whole of the Greyfriars excavation produced 601 special finds of which 108 relate to Area 5. Twenty of the special finds from Area 5 were found to be missing from the archive. Special finds were cleaned, x-rayed if appropriate, and conserved where required by Bristol City Museum's own in-house conservator.

In the following report, for ease of reference, the Small Find numbers from the 1973 excavation are annotated with the suffix '73' (e.g. SF1/73) to distinguish them from those from the 1976 and 1999 excavations.

As part of the post-excavation work carried out by the writer, analysis sheets were prepared for each context and feature giving its description, details of finds, a provisional date and its place within the site phasing.

The Site 1 excavation was ascribed Bristol City Museum and Art Gallery Accession Number 242/1973 and the Bristol Urban Archaeology Database event number 316. All the paper archive and finds for the excavations bear this accession number and have been deposited in the Archaeology Department of Bristol City Museum.

Site 2 (Fig.1; NGR ST 58694 73418)

The Background to the Excavations

In 1976, prior to the construction of a further extension to the University of Bristol Dental School to the west of that already built in 1973, an excavation was undertaken by the Department of Archaeology of the University of Bristol. The work was carried out by a small team of student volunteers, directed by Dr. Toby Parker of the University and supervised by Vince Russett of Bristol Museum.

The excavation lay within the west end of the Moravian chapel, covered an area of about 72 square metres, and was 8.5 metres west of Site 1. The work commenced on 10 June and was completed on 1 July.

The main aim of the project was to examine more of the Roman occupation which it was assumed would extend further to the west of that found in 1973. In the process it was intended that any post-medieval and medieval deposits and features would also be recorded.

Excavation Methods and Recording

An area measuring approximately 9 metres north/south by 8 metres east/west was stripped to an average depth of 0.9 metres below the floor of the Moravian chapel using a 180 degree mechanical excavator. The excavation proceeded by hand once archaeological deposits were encountered and most of the area was excavated to natural.

The archive from which the interpretation of the site is derived takes the form of a hard bound site notebook, site plans, section drawings, photographs and finds.

The site notebook comprises a log giving details of the progress of the work and the excavators' views on the interpretation of the features revealed, interspersed with sketch plans and sections. The majority of the book is taken up by a list of the contexts which describes the contexts, their relationship to each other and their approximate location within the excavated area. Using the context list in conjunction with the sketch plans and sections and the detailed site plans, it has been possible to locate and interpret most of the contexts and features.

The site was recorded by context and feature. Ninety-two contexts were identified and were given a running alphabetical code: AA, AB, AC and so on. In addition to a context code, features such as walls, pits, gullies and post-holes were given a number preceded by a letter or letters, e.g. W1 (wall 1), P2 (pit 2), PH1 (post-hole 1), etc. Contexts sometimes relate to a particular feature, e.g. AD was the fill of P2.

Unfortunately the contexts and features on Site 2 were given a similar series of alphabetical and numerical codes to those used on Site 1. Those for Site 2 have therefore been given a suffix number based on the year of the excavation, for example AA/76 and W1/76.

The site was planned at a scale of 1:20 based on a fixed grid which was related to the foundation walls of the Moravian chapel. The heights of contexts and features were recorded in relation to each other but not, as far as could be ascertained, to the Ordnance Survey Datum.

Sections were drawn at a scale of 1:10 but the positions of the sections were not located on the site plans. The contexts and features recorded on some of the section drawings were given letters or numbers which bear no relationship to the lists of contexts and features contained in the site notebooks.

The site was recorded photographically using 35mm colour print or slide film but little of the photographic archive could be traced.

Finds were cleaned and marked individually with the Bristol City Museum accession number and the site context code and then bagged and boxed by find type and context for storage purposes.

Special finds were given an individual special or 'Small Find' number and listed and described in the site notebook. The excavation produced 249 items which were classified as special finds. Special finds were cleaned, x-rayed if appropriate, and conserved where required by Bristol City Museum's own in-house conservator.

In the following report, for ease of reference, the Small Find numbers from the 1976 excavation are annotated with the suffix '76' (e.g. SF1/76) to distinguish them from those from the 1973 and 1999 excavations.

As part of the post-excavation work carried out by the writer, analysis sheets were prepared for each context and feature giving its description, details of finds, a provisional date and its place within the site phasing.

The excavation was ascribed Bristol City Museum and Art Gallery Accession Number 88/1976, although this was later altered to 98/1976, and the Bristol Urban Archaeology Database event number 432. All the paper archive and finds for the excavations bear Accession Number 98/1976 and have been deposited in the Archaeology Department of Bristol City Museum.

Site 3 (Fig.1; NGR ST 58694 73413)

The Background to the Excavations

After demolition of the post-medieval buildings on the site, including the Welsh Baptist Chapel and the row of houses called Pembroke Court, the land had been raised, largely with demolition rubble, to form a relatively level area for use as a car park. The area of the excavation was bounded on the north by Upper Maudlin Street, west by Johnny Ball Lane, south by a cliff with the Greyfriars and Whitefriars office developments below, and east by the Dental School (Plate 2). The steps leading down from Upper Maudlin Street to provide access to a pedestrian subway below the street divided the site into two separate areas. A steep road had been built from the western end of Blackfriars to provide access to the car park and had destroyed all the archaeology along its route. Tucked between the access road and the cliff to the south was the surviving 17th-century building referred to in above (pp36-7). Called the Abbot's House it is now used as offices by The Special Trustees for the United Bristol Hospitals, the owners of the site.

During construction work for the car park and access road in 1989, John Bryant of Bristol City Museum, recorded various remains of walls on and about the sites of the former Nos. 34-38 Upper Maudlin Street, and Nos. 1-4 Pembroke Court. A brick construction, possibly a garden feature which still partly survives in the garden of the Abbot's House, was recorded (BUAD no. 300).

A ground investigation of the site was carried out by Geo-Testing Services Limited in 1989. This took the form of drilling a number of bore-holes and excavating four trial pits. The purpose of this work was primarily to examine the nature of the geology beneath the site, but it also established the depth of 'made ground' - a term which included demolition rubble and overburden as well as deposits of possible archaeological interest. The depth of made ground varied across the site, ranging from 0.3 metres to as much as 4.5 metres.

Development was first proposed for the site in 1993. The office development involved excavating the hillside for basements to a depth of as much as 11 metres, well below the known level of any archaeological deposits and therefore resulting in their complete destruction across the whole site. At that time a formal agreement was reached with the Special Trustees over the cost of an archaeological excavation. The extent of the excavation then proposed was limited to the eastern portion of the site - i.e., to the east of the steps leading to the pedestrian subway - as it was the area closest to the known Roman occupation and therefore thought to be potentially of the greatest archaeological interest. The redevelopment of the site, and consequently the archaeological excavation, did not proceed in 1993, but the funding agreed for archaeology was put to one side and index-linked for use at a future date.

The aims of the proposed archaeological work were:

1. To concentrate on preserving by record the archaeology of the site to the east of the pedestrian subway but also to examine the area to the west of the subway in as much detail as possible in the time available.
2. To examine the 17th- and 18th-century remains which might include evidence of formal gardens, whose presence was suggested by contemporary maps and plans and also the results of the 1989 excavation around the Abbot's House.
3. To discover the immediate post-Dissolution development of the site. In particular, there was the possibility of lodges, similar to the surviving Red Lodge, having been built by Bristol's wealthier inhabitants on the lower slopes of Kingsdown.
4. To establish the use of the land when the site lay within the precinct of the Franciscan friary. It was thought that the land had been cultivated as orchards, vegetable plots or herb gardens to supply the needs of the monastic community.
5. To see if there was evidence for use of the site in the early medieval period, pre-dating the establishment of the friary in the mid-13th century.
6. To uncover further evidence of the Roman settlement revealed on Sites 2 and 3 to the east. It was hoped to establish more accurately the period or periods of use of the site and the nature of the settlement (agricultural and/or industrial).
7. To compile a detailed history of the site from contemporary records, and to integrate this with the excavation findings.

Plate 2 Aerial view of the 1999 excavations (Site 3) looking north-east. The steps to the pedestrian subway divide the site. Site 2 was located below the modern building and gardens in the top right. The car park access road slopes east from the centre of the photograph past the modern extension to the Abbot's House. The cliff edge is marked by a modern wall at the bottom of the photograph.

Archaeological excavation of Site 3, which covered an area of about 600 square metres, took place between 8 February and 11 June 1999. The excavation was directed by Reg Jackson for Bristol and Region Archaeological Services, assisted by a staff of up to nine professional archaeologists.

Excavation Methods and Recording

Initially the entire area was stripped of car park surfaces, modern make-up levels, demolition rubble and overburden using a 360 degree mechanical excavator. This stage of the operation took two weeks when some 7,000 tons of spoil were removed from the site.

For safety reasons it was necessary to leave a 30 degree batter on the sides of the excavation where it fronted Upper Maudlin Street and Johnny Ball Lane, as the excavation was being carried out at a depth of up to four metres below street level. A similar batter was required to retain the pedestrian subway but it was possible to use a cellar wall to partly support the east side of the subway, allowing a slightly larger excavation area. It was also necessary to leave pedestrian access for hospital personnel from Upper Maudlin Street to Blackfriars Lane/Deep Street, along the east side of the excavation. To the south, the car park access road had cut deep into bedrock removing the archaeology and was therefore retained to provide access to the site for removal of spoil.

Once archaeological deposits and structures were encountered these were cleaned and excavated by hand. The site was worked as an open area excavation with relevant sections being recorded before removal.

All archaeological deposits, features and structures, including the remains of the 18th- and 19th-century buildings, were recorded in detail. The entire area to the east of the subway was excavated to natural while that to the west of the subway was excavated to the top of the medieval cultivation soil.

The archaeological features, structures, cuts, fills and layers were recorded using a continuous numbered context system. No separate feature or structure numbers were used. The contexts were numbered from 1 to 421. Each context number was recorded in a site register with a brief description of the location and type of context. Context record sheets were then fully completed by the archaeologist carrying out the excavation of that context.

The site was planned at a scale of 1:20 using a fixed grid laid out in 5 metre squares with a common base line linking the areas to the east and west of the subway. The site grid was related to the Ordnance Survey grid and the relative heights of all layers, features and structures were related to Ordnance Survey Datum. Sections were drawn at a scale of 1:20 or 1:10.

The site was recorded photographically using 35mm colour print and slide film.

Finds were cleaned and marked individually with the Bristol City Museum Accession Number and the site context number and then bagged and boxed by find type and context for storage purposes. Finds Record Sheets were prepared giving full details of the quantity of finds from each context to aid the post-excavation work and to assist in the long-term curation of the material.

Special finds were given an individual special or 'Small Find' number and recorded in detail on a Small Find Record Form. A total of 259 small finds were recorded. For ease of reference the Small Find numbers in the following report are annotated with the suffix number '99' to distinguish them from those from the 1973 and 1976 excavations. Special finds were cleaned, x-rayed if appropriate, and conserved where required by the Bristol City Museum's own in-house conservator.

As part of the post-excavation work, analysis sheets were prepared for each context giving details of the type of context, a brief description of finds within that context, and a provisional date for the context.

The excavation was ascribed Bristol City Museum and Art Gallery Accession Number CMAG 1999.7 and Bristol Urban Archaeology Database No. 3399. All the paper archive and finds from the excavation bear the accession number and have been deposited in the Archaeology Department of Bristol City Museum.

Phasing of Sites 1, 2 and 3

Period 1	Prehistoric
Period 2	Roman
	Period 2A: late 2nd century to early 3rd century
	Period 2B: late 3rd and 4th centuries
	Period 2C: 5th century
Period 3	Medieval
	Period 3A: 11th century to mid 13th century
	Period 3B: mid 13th century to 1538
Period 4	Post-medieval
	Period 4A: 1538 to c.1670
	Period 4B: c.1670 to the early 18th century
	Period 4C: early 18th century to the mid 19th century
	Period 4D: mid 19th century to the early 20th century

THE EXCAVATION REPORT

THE NATURAL

The natural bedrock immediately underlying the three sites was a soft red Triassic sandstone which had been weathered and eroded. It ranged in colour from a reddish-brown to a bright purple, the latter becoming particularly intense when wet. The bedrock was crossed by fissures, apparently derived from water erosion, which had become filled with a red-brown clayey sand containing occasional abraded sherds of Roman pottery.

On Site 3 it was possible to examine the natural as it had not been disturbed by Roman features or structures. There it appeared that areas of the natural had been exposed during the Roman period by the removal of the topsoil and subsoil. Subsequently the surface of the bedrock had become littered with lumps of slag and fragments of rock up to half a metre across, some having runs of slag adhering to their surfaces. This gave the writer the clear impression that the area had been used for the dumping of debris derived from the working of iron ore.

It is known that the Triassic rocks of the Bristol area have been the subject of widespread diagenetic and post-diagenetic changes including haematitisation (Kellaway & Welch 1993, 142-143). The source of the iron is considered to have been the sulphides and carbonates of iron present in the unweathered Palaeozoic formations; these appear to have been attacked by oxidising ground waters which penetrated the bedrock at depth and also penetrated the basal Triassic sediments. This produced a ferruginous zone so rich that that it has locally been worked as iron ore. Only some 800 metres to the west of Upper Maudlin Street, dark purplish red haematitic breccia has been noted at the southern end of Brandon Hill. Weare (1893, 32) referred to the spring supplying the Greyfriars conduit as passing through 'beds of ironstone' under the gardens of houses in Bedford Place to the north of Upper Maudlin Street.

The presence of the iron slag on all three sites and the known occurrence of iron ore bearing rock within the Triassic strata suggests that the purpose of the Roman occupation described under Period 2 below was connected with mineral working and iron production.

PERIOD 1: Prehistoric

Sites 1, 2 and 3 produced fifty worked flints and nine pieces of chert, the largest collection of lithic material from any site in the centre of Bristol (see below pp75-77). Most of the material consisted of waste flakes, but of the remainder an unusually high proportion were retouched pieces. They date to the Neolithic (c.4,000-2,600 BC) and the Early Bronze Age (c.2,600-1,600 BC), although a backed blade of probable Mesolithic date (c.10,000-4,000 BC) was also found.

Flint and chert are not local materials to Bristol, although small amounts of low quality flint occur in gravel and stream deposits in the area. It appears that attempts were made to utilise some of this material but the results were generally poor. The nearest source of high quality flint is the chalk areas around Marlborough in Wiltshire, some 50 kilometres to the east of Bristol.

These worked flints were all residual in later contexts, the prehistoric land surface having been disturbed to bedrock during industrial activities and cultivation in the Romano-British and medieval periods. Consequently the nature of the prehistoric activity on the site is difficult to assess, but a series of visits by people over a fairly long period of time taking part in activities which involved the use and maintenance of flint tools is a reasonable

interpretation of the assemblage. It seems likely that the terrain of the area, at the top of a low cliff overlooking the flood plains of the rivers Frome and Avon, had natural advantages which attracted prehistoric people to the site.

PERIOD 2: The Roman Occupation (Figs.2-4)

Sites 1 and 2 provided ample evidence of extensive occupation during the Roman period in the form of layers, features, structures and finds, while Site 3 produced pottery and other finds of Roman date but only as residual material in medieval and post-medieval contexts. Unfortunately, due to the subsequent intensive use of the area, particularly during the post-medieval period, the Roman deposits had been quite badly disturbed and what remained of them was often patchy and disjointed making their interpretation difficult.

It was anticipated that the results of the earlier excavations could be refined and, if necessary, reinterpreted as a result of the careful excavation of the expected Roman occupation on Site 3. However, in the event, the absence of any Roman occupation on that site prevented such an opportunity. Thus the following Period 2 phasing is based on what could be gleaned from the site records concerning the obvious and unequivocal sequence of layers and features supported by the dating of the finds contained within them. A significant difficulty here was that the majority of the pottery could only be broadly dated to the later 3rd/4th centuries leading to difficulties in subdividing Period 2B, clearly the primary phase of activity during the Roman period.

Period 2A: The late 2nd century to early 3rd century

The limited evidence we have for the Period 2A occupation comes from Site 1 as Site 2, to the west, produced no pottery or other finds which could be conclusively dated earlier than the mid to late 3rd century. The Period 2A features are not illustrated.

A single feature, close to the north-west corner of Site 1, produced the earliest Roman pottery from the Upper

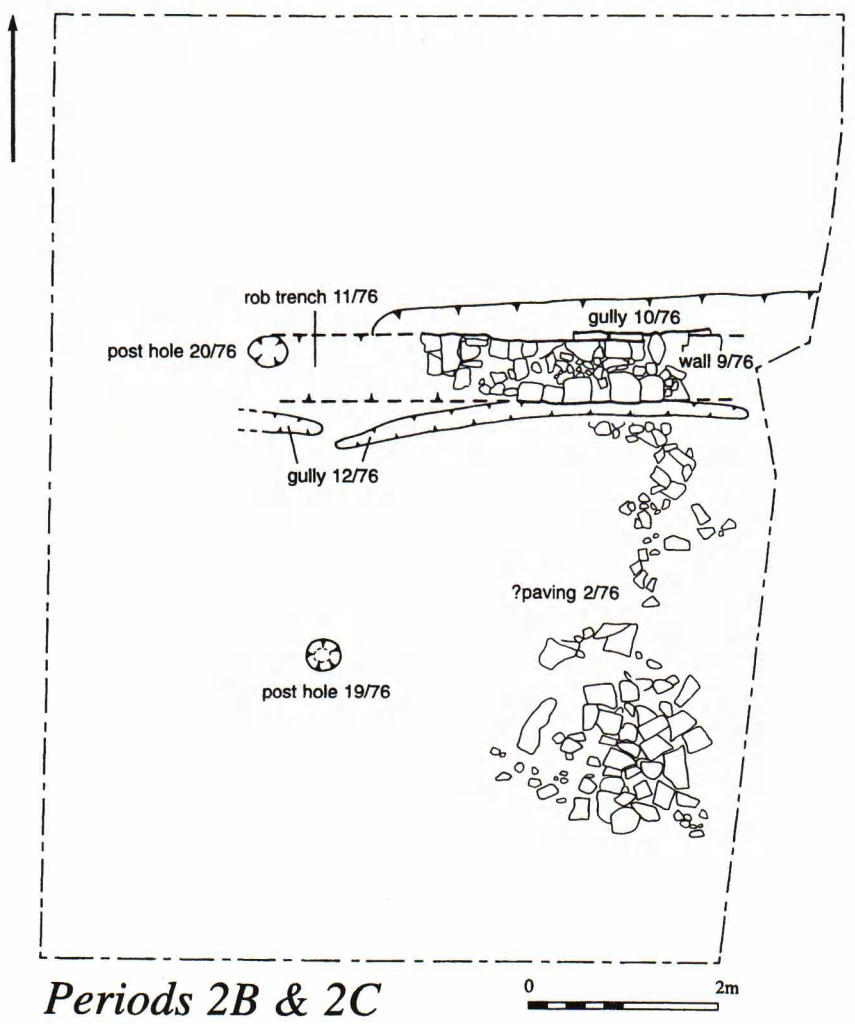


Fig.2 Site 2, Periods 2B & 2C.

Maudlin Street excavations which dated from the late 2nd to the early 3rd centuries. This feature took the form of a slot or gully aligned east/west, 1.7m long by 0.35m wide and up to 0.33m deep (slot 2/73), filled with dark brown soil containing much charcoal (PR/73). It is unfortunate that slot 2/73 cannot be related stratigraphically to any of the other Roman features. An additional difficulty is that the site context records imply that slot 2/73 cut layer OW/73, the latter being dated on ceramic evidence to the late 16th or 17th century. However, an examination of the site plan and other data shows that the slot or gully must predate layer OW/73.

One layer in the western portion of Site 1 (NZ/73) produced pottery of exclusively 2nd-century date but must be treated with caution as it was described in the site records as a 'general cleaning layer', rather than a sealed context.

The fill of a natural fissure or old stream bed in the bedrock on Site 1 (JZ/73, KA/73), whose location was not planned, produced sherds of Roman pottery and a glass bead (SF36/73). Although the pottery could not be closely dated it seems likely that the filling of the fissure would have occurred during the earliest period of Roman occupation.

Period 2B: The late 3rd and 4th centuries

Although at least three phases of activity appear to be represented by features within this period, the pottery with which they were associated does not allow them to be dated more accurately within the overall Period 2B date range. However, the stratigraphic sequence shows, for example, that gullies 10/76 and 12/76 on Site 2 underlie wall 9/76 and therefore pre-date the wall. Similarly, on Site 1 pit 33/73 lay partly under wall 48/73 and was thus clearly earlier than the wall. Pit 33/73 was also sealed by layer RB/73 which was contemporary with wall 48/73 and furnace 1/73, thus confirming that that pit 33/73 pre-dated both the wall and the furnace. On the basis of the evidence available Period 2B has been divided into three sub-periods: Periods 2B(i), 2B(ii) and 2B(iii).

Unfortunately not all the features within Period 2B are stratigraphically linked but where they are they seem to fall naturally into groups according to the type of feature. Therefore where a feature is not related stratigraphically across the site it has seemed expedient to place it in the sub-period which has similar features. Consequently the features within Period 2B(i) are gullies and postholes, within Period 2B(ii) pits and within Period 2B(iii) walls and a furnace.

Period 2B(i)

Gully 10/76 was at least 5m long by up to 0.8m wide and 0.36m deep. In plan it tapered to the west and both ends were rounded. Its upper fill, DR/76, was sealed by a layer of light red-brown coarse sandy loam (DL/76) which lay to the north of wall 9/76 (Period 2B(iii)). The lower fill of the gully was a light brown, sandy loam mixed with coarse purple sand and it contained 4th-century pottery (DT/76).

Gully 10/76 was at least 5m long by up to 0.8m wide and 0.36m deep. In plan it tapered to the west and both ends were rounded. Its upper fill, DR/76, was sealed by a layer of light red-brown coarse sandy loam (DL/76) which lay to the north of wall 9/76 (Period 2B(iii)). The lower fill of the gully was a light brown, sandy loam mixed with coarse purple sand and it contained 4th-century pottery (DT/76).

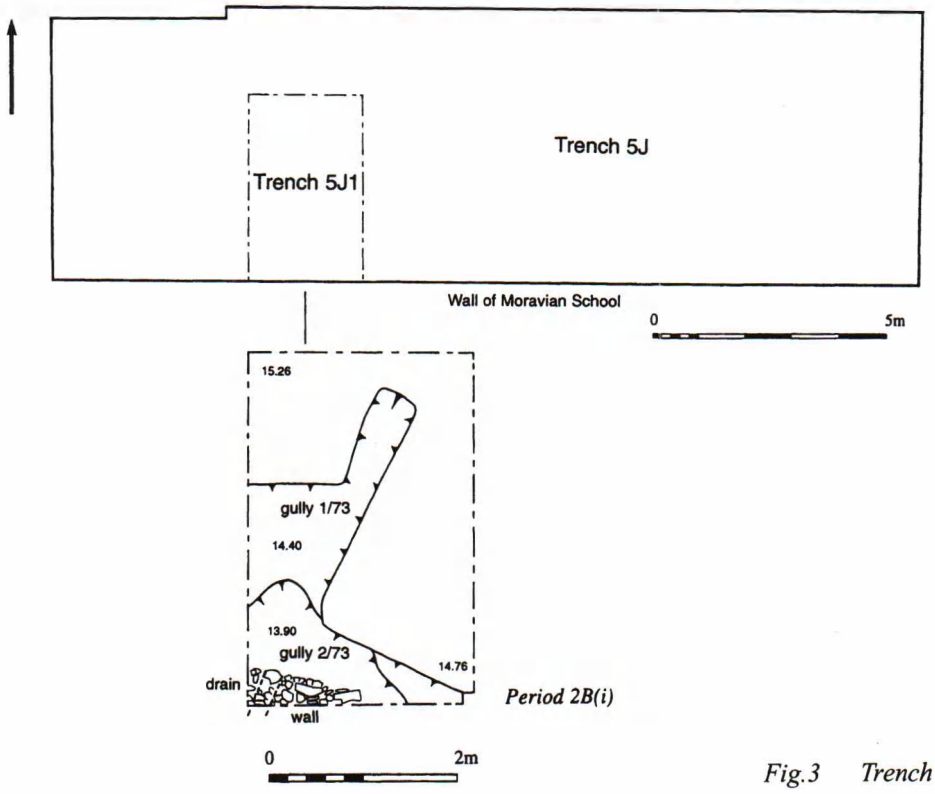


Fig.3 Trench 5J1, Period 2B(i).

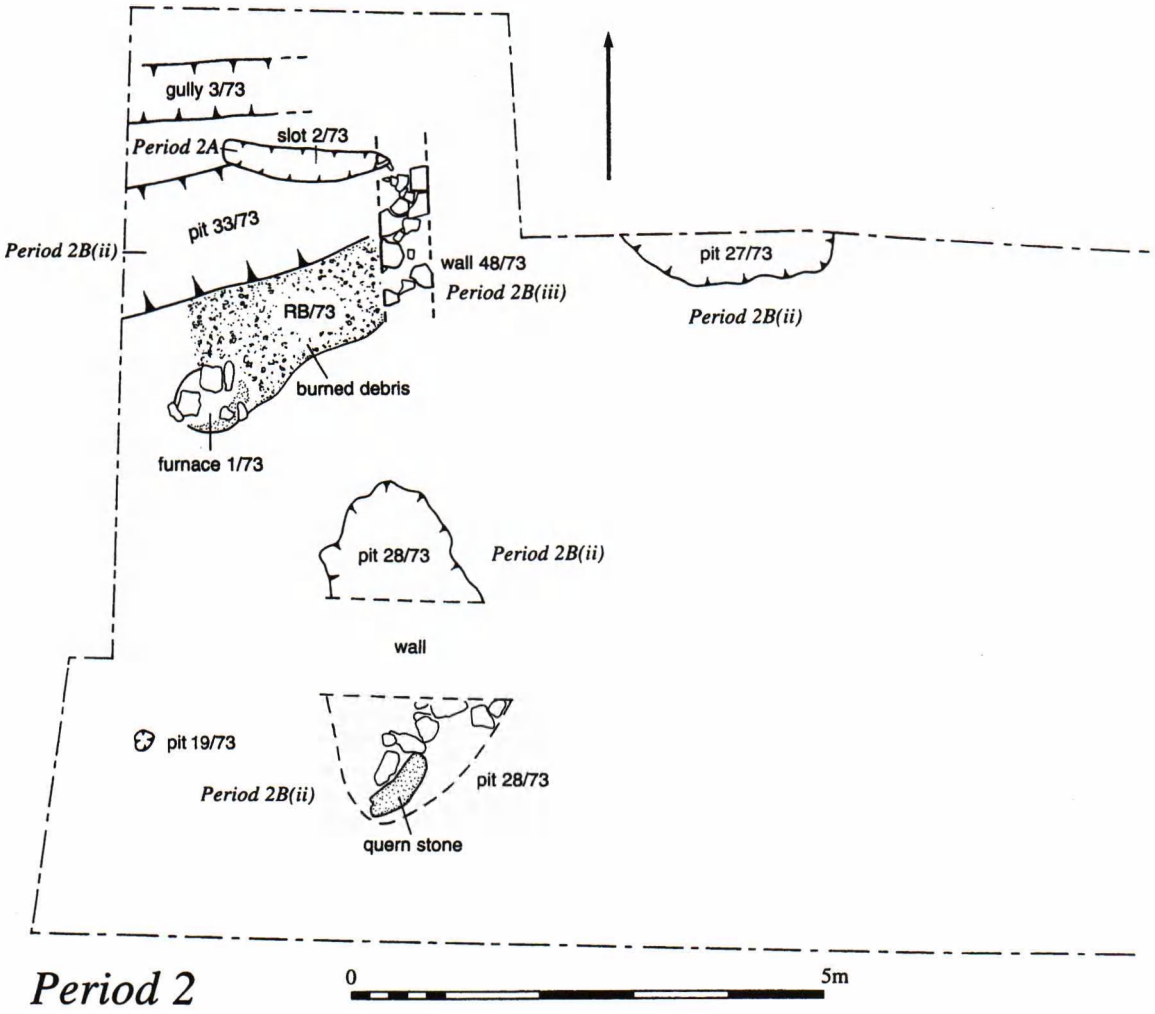


Fig.4 Site 1, Period 2.

Gully 12/76: Although only given one feature number, this is shown on the site plan to be two separate gullies, their ends partly offset and divided by a gap of 0.15m. They were sealed below layer DP/76 (Period 2C). The eastern portion of gully 12/76 was 4.6m long by 0.2m wide, up to 0.19m deep and had rounded ends. Its fill was similar to that of gully 10/76 and produced 4th-century pottery (DV/76, DW/76). The second part of gully 12/76 extended beyond the excavated area but was at least 0.7m long by 0.2m wide.

Gully 1/73 in Trench 5J1 on Site 1 and aligned approximately north-east/south-west was almost certainly a natural fissure in the bedrock. It measured at least 2.6m long by up to 0.4m wide and was cut by gully 2/73 (Period 4A). It was filled with a red-brown silt (ER/73) which had probably been washed down the hillside and this silt contained late 3rd-/4th-century pottery.

Two postholes on Site 2 were probably contemporary with the gullies.

Posthole 19/76 was an isolated feature cut into natural and sealed below layer DK/76 (Period 2C). Approximately 0.46m in diameter and 0.1m deep it was filled with a light brown slightly clayey loam containing charcoal and daub (DS/76). This contained sherds of Roman pottery although these could not be more closely dated. Nevertheless, posthole 19/76 was clearly stratigraphically earlier than wall 9/76 (Period 2B(iii)).

Posthole 20/76 was sealed below the fill of gully 11/76 - the rob trench for wall 9/76 (Period 2C) - and also layer DL/76 to the north of wall 9/76 (Period 2B(iii)). It was approximately square in plan, measuring 0.4m across, and its fill comprised a light brown slightly clayey loam containing late 3rd-/4th-century pottery (DX/76) with a flat slab of yellow sandstone forming its base (DZ/76).

Occupation Layers: On Site 1, to the south of and cut by the south wall of the Moravian chapel (Period 4C) were a number of interleaving layers all of which appear to have been cut by pit 28/73 (Period 2B(ii)). These all produced late 3rd-/4th-century pottery. The upper layer was a red-brown loamy soil (FR/73), beneath which was a brown clay (GF/73). The layer of brown clay sealed, at the west end of the trench, a greyish brown clay (GK/73) and, towards the east end of the trench, a purplish brown clay (GA/73, GG/73) which in turn overlay a sterile purple stoney layer, probably natural (GL/73). A layer of sandstone packed tightly in purple clay, KX/73, was situated to the east of, and was probably cut by, pit 28/73 (Period 2B(ii)).

A number of other layers within the western portion of Site 1 contained late 3rd-/4th-century pottery. One of these,

OR/73, was clearly cut by Period 2B(ii) pit 27/73 and immediately overlay a layer interpreted as natural (PZ/73). A layer of red-brown clay towards the eastern edge of Site 1 was described in the archive as a possible floor and contained later 3rd-/4th-century pottery (GH/73).

Period 2B(ii)

A number of pits had been cut into the natural on Site 1, one to a depth of almost a metre, and all contained pottery of late 3rd-/4th-century date.

Pit 28/73: This large pit, bisected by the south wall of the Moravian chapel (Period 4C), had been cut through Period 2B(i) layers into natural. To the north of the chapel wall it was up to 1.3m across and filled with dark brown soil mixed with some fragments of purple sandstone, some fragments of quern stones and late 3rd-/4th-century pottery (PS/73, PX/73, QH/73). To the south of the chapel wall the pit had been damaged by the construction of the stone culvert of the Greyfriars' conduit (Period 4C). Here the pit was partly filled with large stones set in reddish-brown clay, one of the stones being a fragment 0.8m long of what must have been a very large quern or millstone (EQ/73, FS/73). Beneath EQ/73 and FS/73 was a lower pit fill of red-brown clay and stones (ET/73, EV/73, FN/73, HO/73). The upper and lower fills contained late 3rd-/4th-century pottery and a copper alloy brooch (SF9/73) was found in ET/73.

Pit 33/73: A shallow pit lying partly below and to the west of wall 48/73 where it was sealed by layer RB/73 (Period 2B(iii)). It extended beyond the west edge of the excavation but measured at least 2.6m east/west and 2m north/south and was 0.2m deep. The northern portion of the pit was cut by a ditch (gully 3/73; Period 2B(iii)). The upper fill consisted of a dark grey ashy silt with stones, burnt clay and charcoal (SA/73) while the lower fill was a red-brown silt with lenses of ash and charcoal (SB/73). Both fills produced late 3rd-/4th-century pottery.

Pit 19/73: This small pit was located in the south-west corner of Site 1. Its fill produced later 3rd-/4th-century pottery (JT/73).

Pit 27/73: This could not be fully excavated as it lay partly below the north edge of Site 1. It had been cut through layer OR/73 (Period 2B(i)) into natural and measured 2.2m east/west by at least 0.5m north/south and was just under 1m deep. Its fill was a dark brown soil mixed with some yellow and purple sandstone and a few flecks of charcoal (PU/73). It contained no datable finds but was probably contemporary with pits 28/73 and 33/73.

Period 2B(iii)

The evidence for the final period of Roman activity within Period 2B consisted of a ditch (gully 3/73), and two lengths of wall (48/73 and 9/76), the latter presumably all that remain of at least one or, more probably, two buildings. One of these walls, 48/73, was associated with what was probably a small iron smelting furnace (furnace 1/73).

Plate 3 Site 1. Looking east showing wall 48/73 and the burnt material (RB/73) spreading towards the wall from furnace 1/73 (still to be excavated) which is at bottom right of photograph. Period 2B(iii).

Wall 9/76 was dated by sherds of late 3rd-/4th-century pottery found within its structure while the fill of furnace 1/73 contained 4th-century pottery. There is no direct dating evidence for the construction of wall 48/73, although it had been built over the fill of Period 2B(ii) pit 33/73 and was apparently abutted by occupation deposit RB/73 which was associated with the furnace.

It is unfortunate that there is no proper record in the site archives detailing the construction of these walls on Site 1 - for example the type of building stone, the bonding material or the number of courses surviving - in order that a proper comparison between the structures could be made.

Wall 9/76: A 3.2m length of this wall survived, aligned east/west, and 0.66m wide, with a foundation offset 0.1m wide on its north side. The wall was bonded with a light ginger-brown loamy clay containing 4th-century pottery (BG/76). To the west the wall had been destroyed although its course was still defined by the line of its robber trench (gully 11/76), while to the east it had been removed by later activity on the site. The wall had been built over the Period 2B(i) gullies 10/76 and 11/76.

Wall 9/76: A 3.2m length of this wall survived, aligned east/west, and 0.66m wide, with a foundation offset 0.1m wide on its north side. The wall was bonded with a light ginger-brown loamy clay containing 4th-century pottery (BG/76). To the west the wall had been destroyed although its course was still defined by the line of its robber trench (gully 11/76), while to the east it had been removed by later activity on the site. The wall had been built over the Period 2B(i) gullies 10/76 and 12/76.

Wall 48/73: Again, only a short length of this wall had survived later activity on the site. It was aligned north/south and was 1.45m long and 0.54m wide. It partly overlies the Period 2B(ii) pit 33/73 and, although not directly dated, the site notes state that it was contemporary with furnace 1/73 and layer RB/73.

Furnace 1/73 and associated layers: This feature was

not adequately described in the site archive or planned in detail. However, the following description has been aided by a small annotated sketch plan made in the site note book. It seems to have formed an irregularly shaped depression some 0.7m across. Its south-eastern edge consisted of clay burnt orange in colour and to a very crumbly consistency by intense heat and there were also lumps of iron slag associated with the burnt clay. This slag was not retained for analysis. The furnace fill comprised lumps of burnt clay, grey ash and some large stones amongst which were pottery sherds of 4th-century date (QO/73, RA/73). A layer of burnt debris and, according to the sketch plan, stones spread in an arc north-east of the furnace towards wall 48/73 which apparently emerged at the same level during excavation (Plate 3). This layer of burnt material consisted of clay, charcoal and red loam containing mid 3rd-/4th-century pottery (RB/73). Layer RB/73 sealed pit 33/73 and although the relationship of RB/73 to wall 48/73 is not given the site notes make it clear that the furnace, RB/73 and wall 48/73 were apparently contemporary in date. To the north of the furnace and adjacent to RB/73 was a layer of brown loam (QP/73) which lacked the charcoal and clay found in RB/73.

Gully 3/73 (Plate 4): This shallow feature, possibly a ditch, was aligned east/west and was just under one metre wide. Only 1.3m of its length was excavated: to the west it extended beyond the edge of the excavation while to the east it had been cut by a post-medieval well (pit 25/73; Period 4B). It cut pit 33/73 (Period 2B(ii)) but its relationship to wall 48/73 could not be determined. Its fill, RZ/73, was similar to layer RB/73 to its south and contained 4th-century pottery, suggesting it was probably contemporary with furnace 1/73 and wall 48/73.

Occupation Deposits: The relationship of these Period 2B(iii) features to contemporary occupation deposits is difficult to determine, due partly to the disturbed and eroded nature of the sites and partly to the difficulties encountered in interpreting the records for Site 1. On Site 1, layers RF/73 and RQ/73 produced 4th-century pottery although their location within the excavated area is not known.

On Site 2, to the north of wall 9/76, were a number of deposits containing later 3rd-/4th-century pottery, although their relationship to the wall was not recorded. The upper layer BO/76 overlay BU/76 which sealed layers CT/76 and DH/76.

Plate 4 Site 1. Looking west after the removal of wall 48/73 showing the east/west gully 3/73 (Period 2B(iii)) to the right of the photograph and the well 25/73 (Period 4B) in the bottom right corner.

Period 2C: The 5th century

The evidence for 5th-century occupation was restricted to Site 2. There the 5th-century occupation levels were situated below redeposited material containing late 3rd-/4th-century pottery. Although this material was given a number of different context letter codes (CN/76 - CS/76, CU/76 - CW/76, DA/76, DB/76, DE/76, DF/76), they all seem to relate to similar deposits, the contexts simply having been designated by area within the site grid. A small area of yellow sandstone slabs within layers CO/76 and CP/76 was thought by the excavators to be paving (structure 2/76), although given the redeposited nature of the material this seems unlikely.

The whole area of Site 2 to the south of wall 9/76 (Period 2B(iii)) was covered with a layer described in the site archive as an 'occupation deposit' consisting variously of a dark brown silty loam containing flecks of charcoal and red and yellow clay (DP/76) or a dirty light brown clayey loam and daub (DN/76). These were laid directly on the natural bedrock and in places were overlaid by similar deposits of dirty clayey loam with patches of red, yellow and orange clays (DJ/76, DK/76). They all contained pottery of 5th-century date only.

Layer DP/76 apparently abutted the south face of wall 9/76, although it is possible that the building of which wall 9/76 formed a part was ruinous by that time, its robber trench (gully 11/76, fill DM/76) containing late Roman pottery.

PERIOD 3: Medieval Land Use
(Figs.5 - 8)

Period 3A: The 11th century to the mid 13th century
Land use pre-dating the establishment of the Franciscan Friary

All three sites produced evidence of early medieval land use, although the nature of this evidence was limited. The presence of residual 11th-century pottery in later medieval contexts might suggest occupation of that date in the vicinity or that the land was at least being worked then for agricultural purposes. A 12th-century boundary ditch, superseded by a stone wall, indicate that the land here was divided into plots - perhaps as separate fields - before being incorporated within the precincts of the friary in the mid 13th century. A stone spread, posthole, layers and a few pits also date from the 12th century but are inconclusive evidence for occupation.

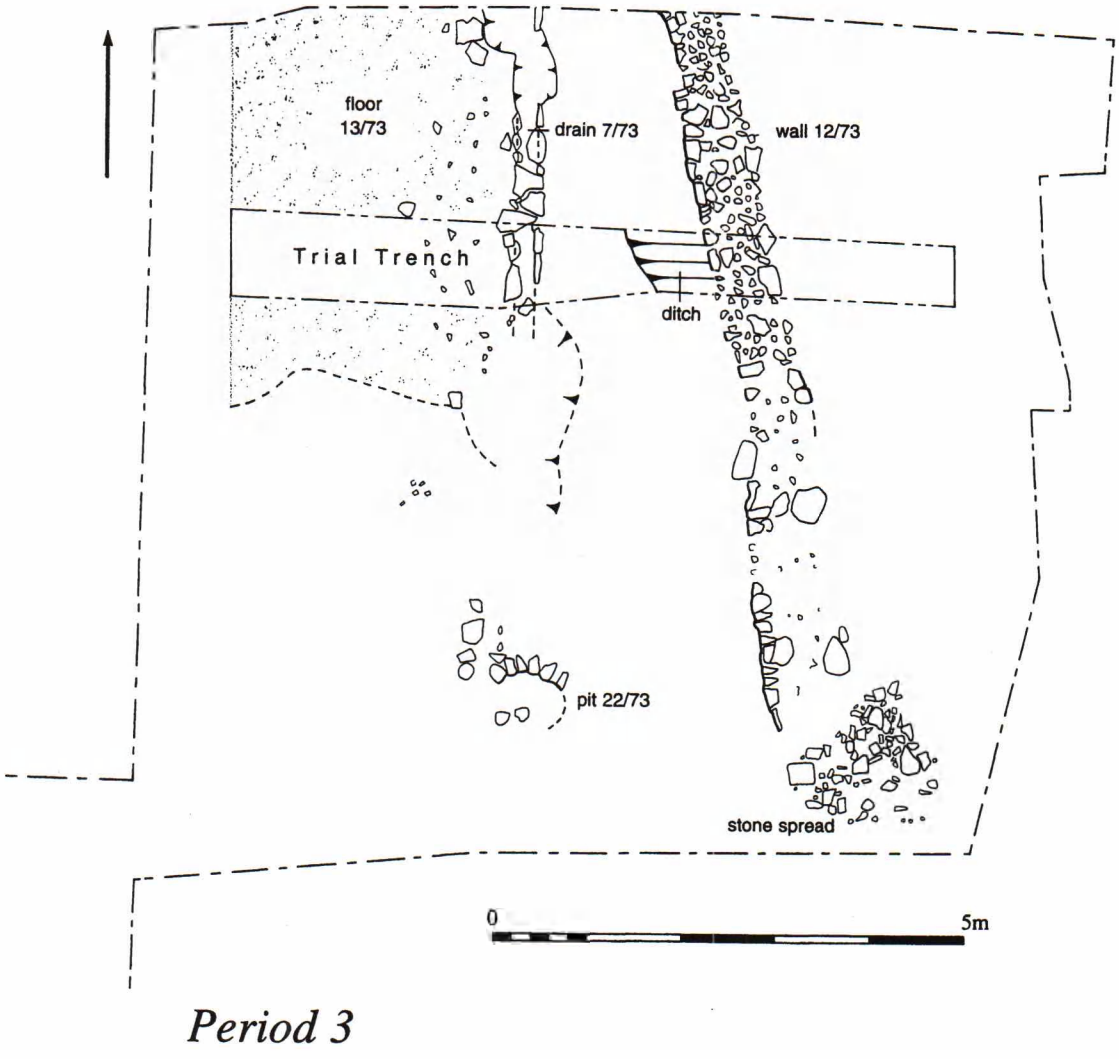


Fig.5 Site 1, Period 3.

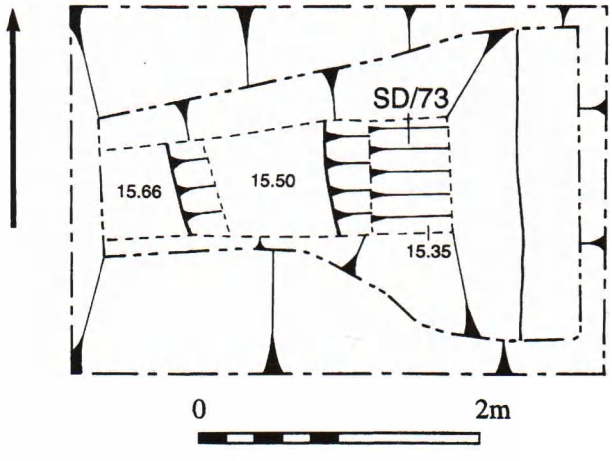


Fig.6 Trench 5W, Period 3A.

The 11th-Century Material: A small number of sherds of early 11th-century date were residual in Period 3B contexts on Site 3. One of those contexts also contained residual sherds dating between 1080 and 1120. A full report on these sherds is contained below.

Boundary Ditch, Wall 12/73 and Occupation Layers: Towards the eastern edge of Site 1 a small east/west trial trench within the main excavation picked up the west edge of a ditch which was aligned approximately north-north-west/south-south-east down the hillslope. Its eastern edge was concealed below wall 12/73, but the ditch was at least 0.8m wide. Unfortunately its depth was not recorded. The ditch fill, OF/73, contained late 12th-century pottery; the absence of Bristol/Redcliffe wares suggesting that the ditch had gone out of use by the 1220s.

Although only a small length of the ditch edge was exposed - the trial trench being restricted to 0.7m in width - it seems likely that the ditch formed a boundary whose line was subsequently replaced by wall 12/73.

A 7.8m length of wall 12/73 survived within the excavated area. It was up to 1m wide and, like the ditch, was aligned north-north-west/south-south-east. It appears

Plate 5 Site 1. Looking south showing the irregularly shaped stone spread (MB/73, RP/73) (Period3A).

to have been roughly built, varying in width, and was not straight, its southern portion veering slightly to the south-west. The wall went beyond the excavated area to the north while to the south it had been reduced by later activity to a rubble spread (OM/73, ON/73). Although there is no direct dating evidence for the construction of the wall, it clearly overlay the fill of the ditch. Residual Roman pottery sherds were found within the wall (PA/73).

To the west of the wall and ditch there was a red-brown stoney area (JW/73) and an area of brown clay (GR/73), both dating to the late 12th century and probably associated with the boundary.

It is probable that the portion of a ditch found in Trench 5W was a continuation of the line of the boundary ditch to the south. The fill of the Trench 5W ditch, SD/73, contained late 12th-century pottery.

Stone Spread and Posthole: A large, irregularly shaped stone spread (MB/73, RP/73) (Plate 5) on Site 1, measuring 6m north/south by up to 2.3m east/west, appeared to have been deliberately laid, possibly as a floor or working surface. Yellow and red sandstone and fragments of Pennant sandstone had been packed into clay which contain much charcoal and ash and late 12th-/early 13th-century pottery. Overlying the stone spread were further 12th-century layers (LY/73, LZ/73), while extending to its west were late 12th-/early 13th-century layers (FH/73, OQ/73, PV/73, PY/73).

Against the western edge of this stone feature, and probably associated with it, was posthole 2/73. Its fill (PT/73) did not contain any dating evidence but it was sealed below the late 12th-/early 13th-century layer OQ/73.

Pits: The only evidence for 12th-/13th-century

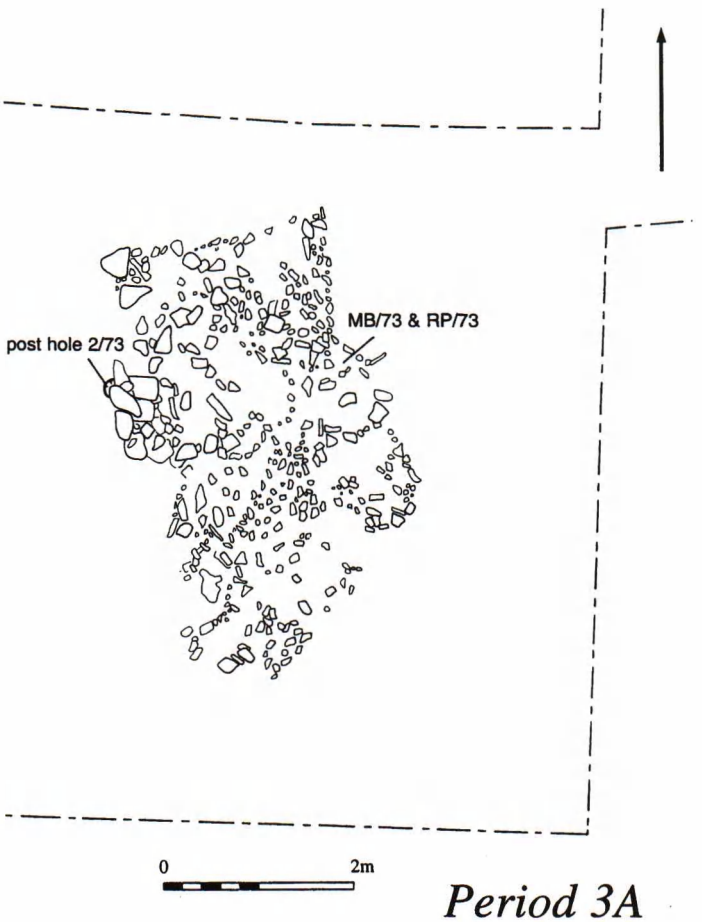


Fig.7 Site 1, Period 3A.

Site	Cut	Fill	Date
2	15/76	BT/76, CK/76	12th century
3	357	358	Late 12th/early 13th century
3	397	398	AD 1120 - 1160
3	401	400	Mid 12th century

Table 2 Period 3A pits.

occupation on Sites 2 and 3 were a few small pits which had been cut into the natural, into deposits of material overlying the natural or into the fill of fissures in the bedrock. These are listed in Table 2.

Period 3B: The mid 13th century to 1538

The majority of features positively attributable to the period when the land was occupied by the Franciscan friars are of a minor nature and were widely dispersed across the three sites. These all date from the mid 13th to the mid 14th centuries and comprise a stone-lined drain, a possible floor or working surface, small areas of agricultural soils and a number of pits. Some larger areas of agricultural soil, while clearly having been cultivated during the same period, also contained a range of pottery extending into the 15th century. For clarity, Period 3B has been sub-divided, the majority of features being assigned to Period 3B(i) while the areas of cultivation which extended into the 15th century have been assigned to Period 3B(ii).

Period 3B(i): The mid 13th to the mid 14th centuries

Drain 7/73 and 'Floor' 13/73: Some 1.2m west of the north end of wall 12/73 (Period 3A) was a stone-lined drain (7/73) running north/south. This drain had been badly damaged by later activity but 3m of it survived, while a further 4m length of the drain was defined by a shallow robber trench (GE/73). The drain appeared to terminate in a stone-edged pit (22/73) although the fill of the pit was not excavated. Twelfth-century pottery came from around the stone structure of the drain (OT/73) and was probably residual, while the red clay fill of the drain produced mid 13th- to mid 14th-century pottery (NX/73).

To the west of the drain, and apparently associated with it, was a compacted layer of mixed red-brown and purple clay, red sandstone and Pennant fragments (FW/73, NY/73) which was designated in the site record as a 'floor' (13/73). There is no evidence of any building associated with this floor but it may indeed have been a working surface of some kind, as its surface produced a quantity of pottery dating between 1250 (or perhaps a little earlier), and c.1300 (GC/73, GJ/73, GM/73). In the same area of Site 1 was a limestone 'feature' set in red-brown sandy clay, again of late 13th-century date, although it was not recorded on the site plan (KW/73).

Pits: A number of irregularly shaped pits, mainly found on Site 3, are further evidence for use of this area during the 13th and 14th centuries. They were often quite shallow and had frequently been cut by later features and structures. At least one may have been the fill of a natural fissure in the bedrock.

The pits belonging to this period are listed in Table 3.

The Greyfriars Conduit: The water conduit supplying the Franciscan friary crosses Site 1 and during the excavations there a stone culvert and lead water pipe were uncovered. While the route of the conduit across the site may date from the medieval period the culvert and lead pipe appeared to be mainly post-medieval in origin and are therefore described under Period 4C below.

Layers: A number of layers, unrelated to each other and to any features, also date to this period and are listed in Table 4. These are probably the scant remains of cultivation soils dating from the use of this area of the friary precinct for the growing of vegetables and other crops requiring tilling of the soil by spade or plough.

There seems to have been a spread of 13th-/14th-century material down the hillslope from Site 1, pottery of that date coming from sealed deposits FA/73 in Trench 5J/73 adjoining Blackfriars Lane and from OL/73 and QQ/73 in Trench 5W/73.

Period 3B(ii): The 15th century

The only substantial evidence of medieval cultivation of the hillside during the Franciscan's ownership of the land came from two areas on Site 3.

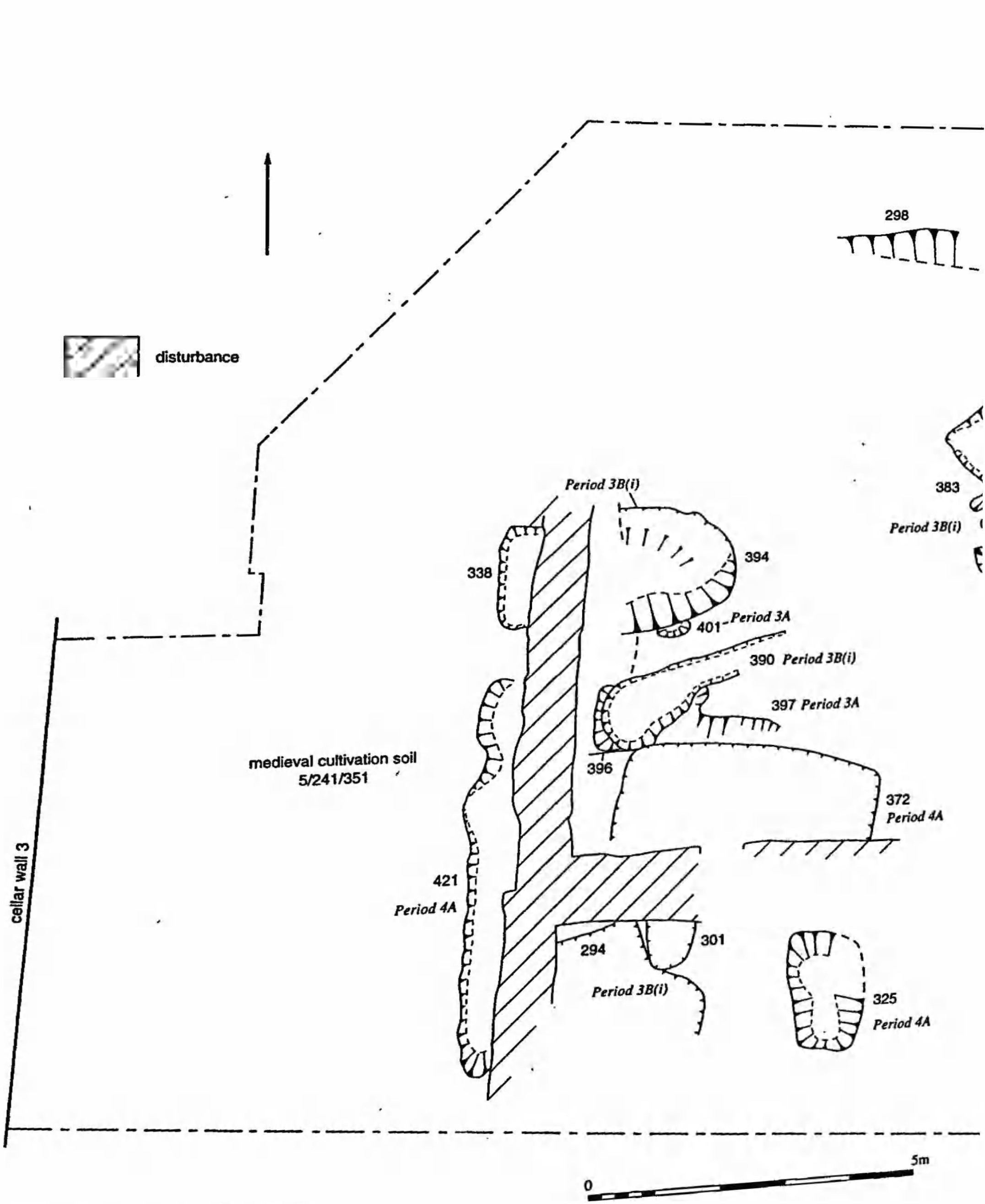
One deposit of cultivation soil (5, 241, 351) had survived below the Period 4D cellar floor (2) as it lay at a greater depth here than elsewhere on the site. It covered quite a

Site	Cut	Fill	Date
2	11/76	AZ/76	Late 13th/14th century
3	294	293	Late 13th century
3	298	299/313/333	Late 13th century
3	301	302	Mid to late 13th century
3	338/394	339/395	1250-1400
3	383	377	Late 13th century
3	379	380	Late 13th/14th century
3	390	390	Late 13th century
3	396	396	Mid 13th/mid 14th century

Table 3 Period 3B(i) pits.

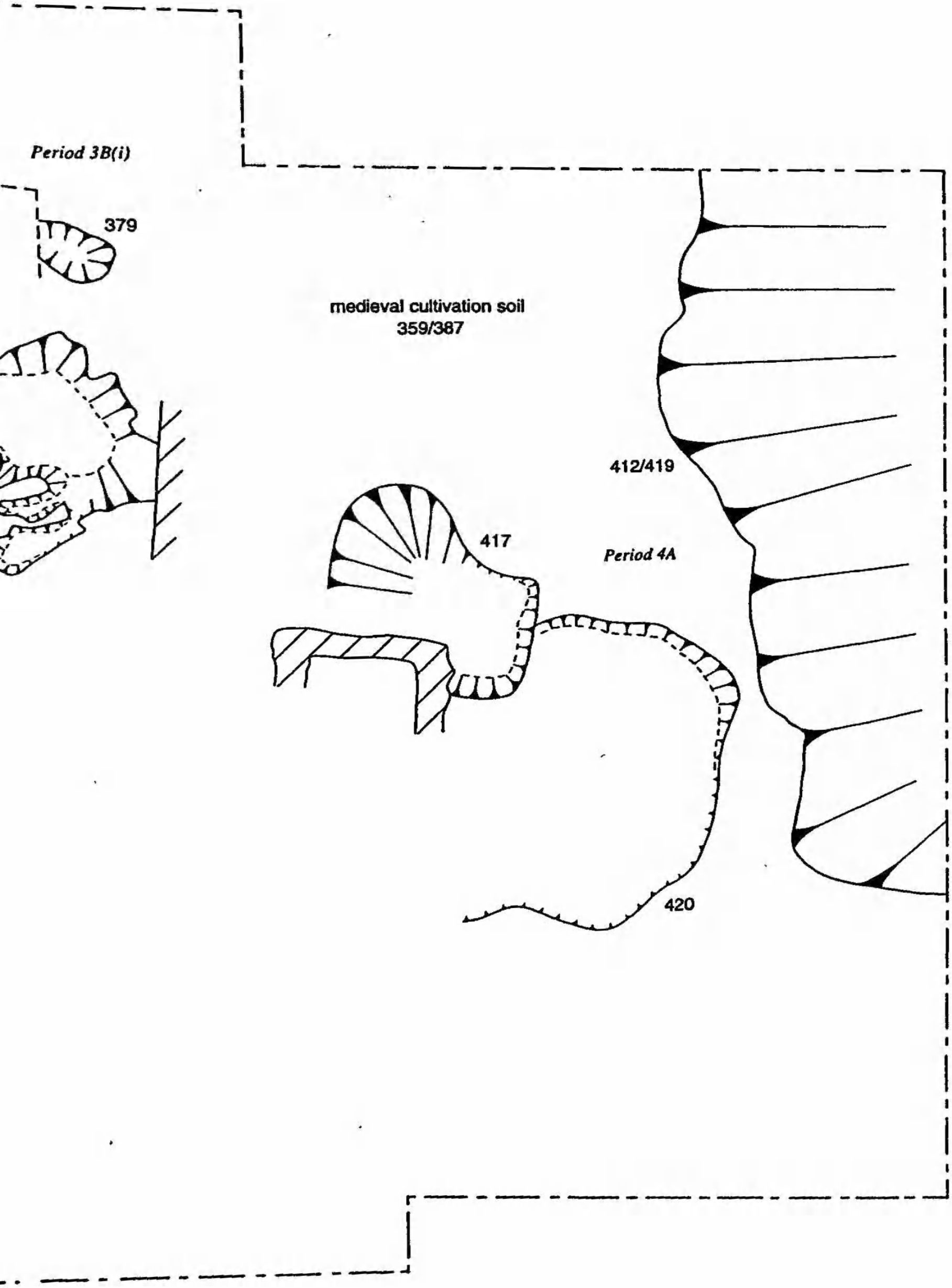
Site	Layer	Date
1	QJ/73	Late 13th century
1	RC/73	1300 - 1500
2	BZ/76	Late 13th century
2	CA/76, CC/76, CE/76, CH/76	Late 13th/14th century
3	287	Late 13th century
3	334	Mid to late 13th century

Table 4 Period 3B(i) layers.



Periods 3 4A & 4B

Fig.8 Site 3, Periods 3, 4A & 4B.


Period 3B(i)
379
medieval cultivation soil
359/387
412/419
417
Period 4A
420

large area measuring some 13m north/south by 7m east/west and increased from a very thin spread over the natural in the north to a depth of about half a metre down the hillslope to the south. It was a homogeneous red-brown sandy silt containing fragments of bedrock and the occasional piece of flint and chert in addition to Roman, medieval and 15th-century ceramics, three Roman coins and a Roman brooch, and a silver Short Cross halfpenny dating between AD 1180-1247.

In the north-east corner of Site 3 a further area of cultivation soil was found (359, 387), although cut by later features including the large pit 412/419 (Period 4A). This consisted of a loose purple/red-brown silty soil with frequent lumps of natural bedrock and occasional fragments of Oolitic limestone. It was up to 0.25m thick at its southern end. Again, there was a mixture of Roman and medieval sherds in the layer, with the latest pottery dating to the 15th century.

The terminal date for the pottery from these two areas of agricultural soils seems to be no later than the end of the 15th century, suggesting a possible cessation of cultivation slightly before the dissolution of the friary in 1538.

PERIOD 4: Post-Medieval (Figs.8 - 17)

Period 4A: 1538 to c.1670

There is only scattered evidence to show that the hillside occupied by the three sites was cultivated between the dissolution of the friary and the middle of the 17th century. A number of small, isolated areas of agricultural soil containing only late 16th- to mid 17th-century material were found, together with a few pits of similar date which survived the extensive ground disturbances of the later post-medieval period. It is possible that the pits were dug simply for use as rubbish dumps but it seems more likely that they had been excavated to extract the bedrock, perhaps for building material. One of the largest pits (412/419) had very little rubbish in its backfill. Similar pits of this date and interpreted as quarry pits were found during the excavation at the east end of nearby St. James' Priory (Jackson forthcoming a).

The deepest of these pits (372) was on Site 3 and measured 4m east/west by 1.6m north/south, its southern side having been removed by the construction of a mid 19th-century chapel wall (9; Period 4D). For safety reasons the pit could not be fully excavated but it was at least 2m deep. Its backfill consisted of a number of tip layers ranging from fine red-brown silt to lenses of black ash and lumps of white plaster, containing large quantities of pottery, ceramic roof tile, floor tiles, clay tobacco pipes, glass, animal bones and oyster shell (371). The ceramic material, particularly the clay pipes, date the back-filling of the pit to the period c.1650 to 1670.

To the north-east of pit 372 was another large pit (412/419) which could again be only partly excavated. It measured at least 10m north/south by 3.8m east/west, although most of it probably lay beyond the northern and eastern edges of the site. It was much shallower than 372 and its fill was more compact and contained mainly re-deposited natural with very little rubbish material (413/414/418). It had been back-filled at an earlier date, sometime in the late 16th century.

Plate 6 Site 3. The west face of wall 86 (Period 4A).

The other pits and layers of this period on the three sites are listed in Tables 5 and 6.

Wall 86: An important feature of this period was located in the western portion of Site 1 where a wall (86), L-shaped in plan, had been built in the late 16th century (Plate 6). As the wall was not mentioned in the grant of that part of the friary land to Richard Cole in 1585 (see Section 4) it seems likely that the construction of the wall took place after that date.

The north/south section of the wall within the excavated area was 9.4m long, although its southern end had been removed by a modern engineer's test pit and the corner of the L-shape had been damaged by an 18th-century water tank (Fig.15, 88; Period 4C). A stub of a wall projecting from below Upper Maudlin Street was on the same line as the north/south wall and was of the same construction, suggesting that the wall had once extended as far as the street frontage to the north.

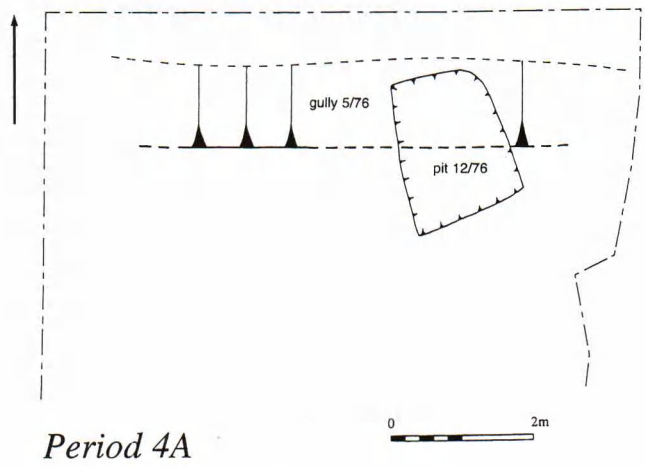


Fig.9 Site 2 (Period 4A)

Site	Cut	Fill	Date
1	6/73	FD/73	Late 16th century
3	325	326	Late 16th century
3	417	416	Late 16th century
3	420	406	Late 16th century
3	421	415	Late 16th century
2	5/76	AM/76	1550-1600
1	7/73	FE/73	Probably Late 16th century
2	17/76 (not on site plan)	CD/76, CL/76, CM/76	Late 16th/early17th century
1	QB/73 (not on site plan)		Late 16th/17th century
1	2/73	EO/73, EP/73, ES/73, EW/73	Early 17th century
1	8/73 (not on site plan)	FG/73	Mid 17th century
1	26/73	OY/73, PL/73	Mid 17th century
2	12/76	BB/76, BM/76, BP/76, BR/76	c.1650-1670

Table 5 Period 4A pits (in chronological order).

Site	Layer	Date
1	CJ/73	Late 16th century
3	237	Late 16th century
1	OW/73	Late 16th/17th century
3	238	Late 16th/17th century
3	341/342	Late 16th/17th century
3	346	Mid 17th century
3	364	Mid 17th century
3	121/124	Mid 17th century
1	GN/73	Mid 17th century
1	EK/73	*c.*1650 – 1670
1	EZ/73	*c.*1650 – 1670
1	OA/73	*c.*1650 – 1670
3	340	*c.*1650 – 1670 (SF197/99: Bristol farthing 1662)
3	291	No finds but underlies Period 4B garden path
1	EG/73	17th century

Table 6 Period 4A layers (in chronological order).

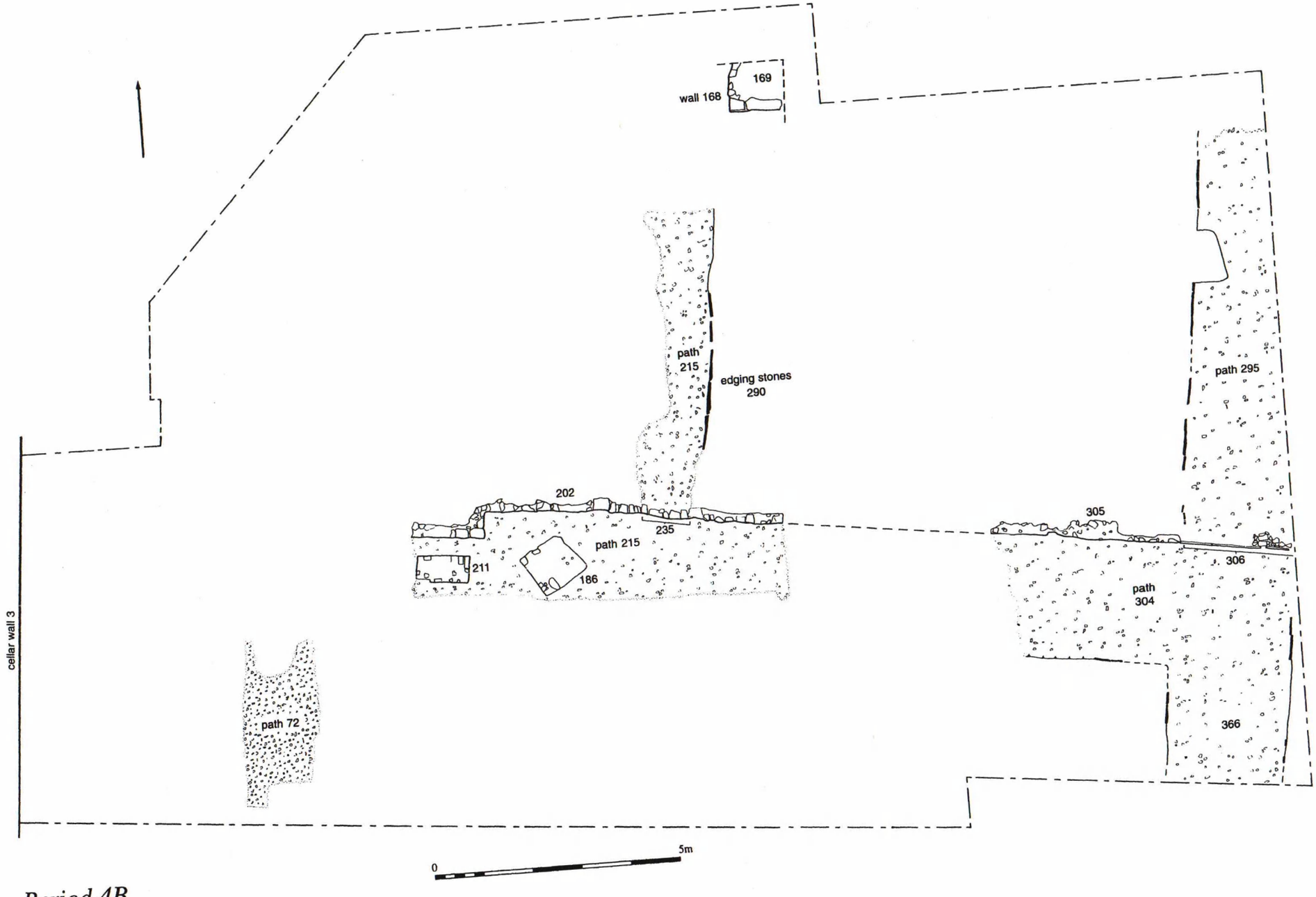
The east/west section of the wall was 3m long and terminated at its eastern end in a vertical joint against a modern wall which was on the same alignment. It is possible that the east/west wall never extended further east or it may have been demolished and rebuilt beyond that point.

Wall 86 was constructed of Brandon Hill Grit bonded with a very friable light brown lime-rich mortar. Although faced on both sides it was poorly built and was at most 0.44m wide, surviving to a maximum height of 1.6m. The wall had been founded on firm red-brown sandy clay (410/411) containing a few sherds of late 16th-century pottery. Overlying 410/411, and apparently dumped against the west face of the wall, was a thin band of off-white/light grey mortar (382) and a further layer of red-brown sandy clay 0.4m thick (381), both of which produced late 16th- to mid 17th-century pottery.

Plate 7 Site 3. Looking east along the terrace/retaining wall 202. The black ash and stone resurfacing of path 215 is to the right of the wall. Plinth 211 at bottom right. (All Period 4B). The south wall (9) of the Welsh Baptist Chapel is on the right of the photograph (Period 4D).

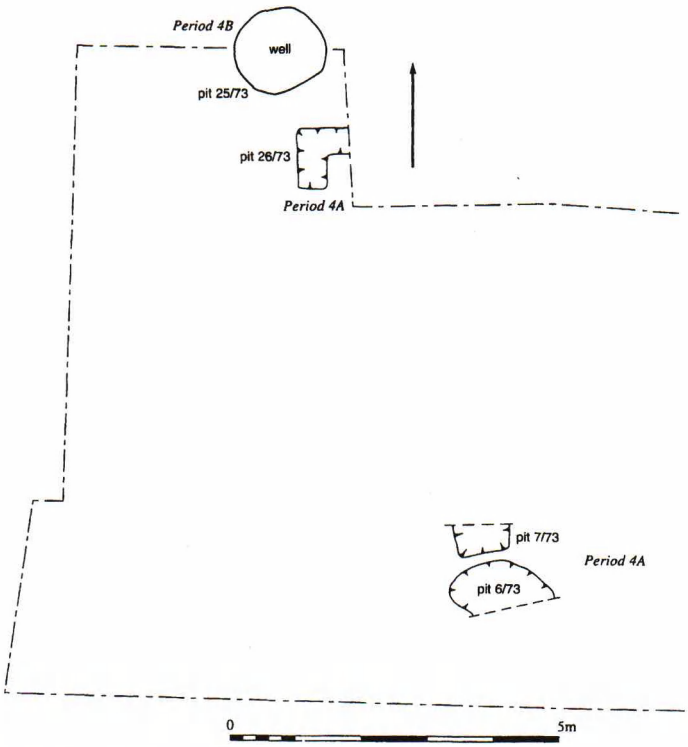
If wall 86 represented the corner of a building, perhaps open-fronted to the east, then there should have been evidence of a floor on that side of the wall. A trial trench excavated to the base of the wall 86 showed that no floor had ever existed. Instead, the Period 4B garden path (363) had been laid close to and parallel with the north/south section of the wall and it seemed unlikely that would have been the case had the L-shaped wall formed part of a roofed building.

The wall was shown by James Stewart when he drew his own house and garden in September 1753 (Fig.19). That view, looking south-east from the corner of Upper Maudlin Street and Johnny Ball Lane, showed the north/south section of wall 86 forming the eastern boundary to Stewart's garden. Stewart had trained at least one tree, possibly a fruit tree, against the wall and it does seem likely that the wall had been constructed as a boundary between the gardens of two lodges built along Upper Maudlin Street in the late 16th century. It appeared to have survived until the demolition of Pembroke Court in 1973.



Period 4B

Fig.11 Site 3, Period 4B.



Periods 4A & 4B

Fig.10 Site 1, Periods 4A & 4B.

Period 4B: c.1670 to the early 18th century
The Formal Gardens

James Millerd's map of Bristol published in 1673, which is considered to be a reasonably accurate pictorial representation of the city, shows by that time that a number of quite large houses had been built along the south side of what was then called Magdalin Lane (Upper Maudlin Street, Fig.20). These were presumably the lodges or garden houses that had been built within the Greyfriars precinct since 1585 (see Section 3 below). No evidence for these garden houses was found during the excavation as what might remain of them lay below the modern street, which has been widened on a number of occasions, and the substantial batter left on the north side of the Site 3 excavation.

The lodges or garden houses were intended as places of retreat for the wealthy citizens of Bristol and their gardens were an important and integral part of that concept of entertainment and relaxation. Millerd depicted the properties as having extensive gardens laid out with paths, borders and trees. The excavations in 1976 and 1999 produced evidence for these gardens from Sites 2 and 3, the Site 3 garden probably belonging to the lodge shown fronting Upper Maudlin Street to the east of James Stewart's property on the 1753 drawing (Fig.19).

Precise dating of pottery from the 17th and 18th centuries is impossible. Thus it has been necessary to rely on a combination of pottery, clay tobacco pipe and coin evidence in determining the possible date of the establishment of the gardens, when various alterations were made to their layout over the succeeding years and their final abandonment.

Plate 8 Site 3. Looking north along path 215 showing the later blocking stones (235) across the path on the line of wall 202. Upright Pennant slabs edge the path to the east.

The archaeological evidence suggests that the Site 3 garden was laid out around 1670. A Bristol farthing bearing the date 1662 (SF197/99) was found in a context (340) immediately below the surface of one of the garden paths (215), so we know that one of the major elements of the garden - the formal paths - could not have been laid before that date. This is reinforced by clay tobacco pipe bowls found in contexts 340 and 346 (the latter below path 366) which can be dated by their shape to the mid 17th century and certainly no later than the 1660s. Context 346 also contained part of a rare 17th-century, 'Ottoman' style, red-earthenware stub-stemmed tobacco pipe made in one of the countries of the eastern Mediterranean.

The gravel surface of path 215 had sealed within it a number of clay tobacco pipe bowls one of which had impressed on its heel the initials of the Bristol pipemaker Francis Russell who obtained his freedom to carry out his trade in December 1669. Thus the path could not have been laid before the beginning of 1670 at the earliest.

If the detail on Millerd's map is to be believed then he showed the gardens as having been established by 1673.

All the available evidence suggests a date for the

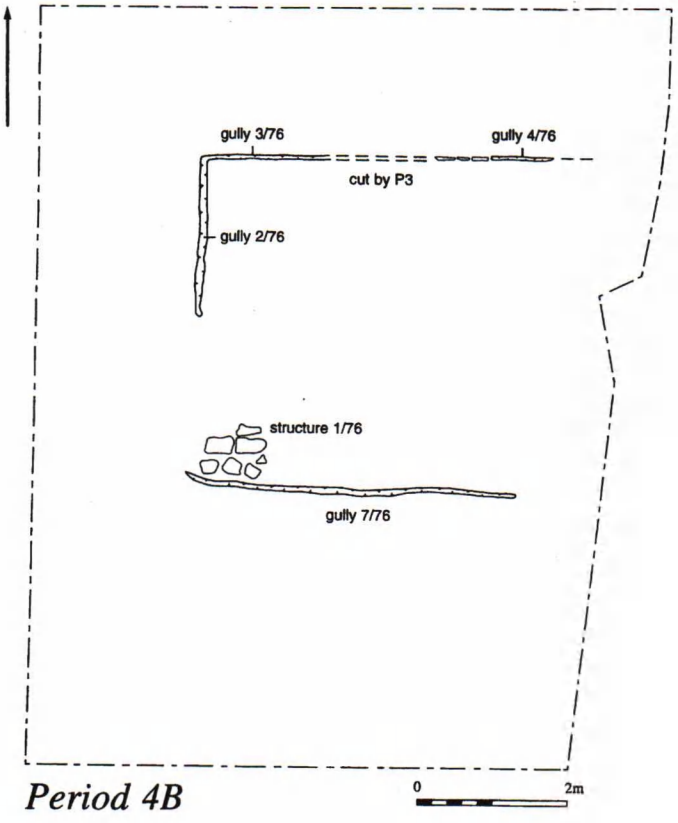


Fig.12 Site 2, Period 4B.

establishment of the Site 3 garden sometime between 1670 and 1673.

It seems likely that the garden on Site 2 was laid out at about the same time, although the archaeological evidence from the 1976 excavation does not allow for such accurate dating.

The Site 3 Garden

It is evident that the hillside required a certain degree of landscaping in order to produce a relatively level terrace on which to lay out the Site 3 garden. The northern portion of the excavated area had been cut into the underlying medieval and early post-medieval deposits, almost down to the top of the natural bedrock. A low east/west retaining wall was then constructed to help raise the level of the flower or vegetable plots to its north, while to its south earth had been dumped to raise up and level the hillslope. Contexts 209, 214, 216, 223, 224, 226 and 228 formed part of these dump layers.

The north/south Period 4A wall (86) formed the western boundary to the garden but it is clear that only a portion of the garden lay within the excavated area. Paths clearly extended beyond the northern and southern edges of the site. It is likely that the whole of the southern part of the garden, which probably extended as far as the cliff top, had been removed by 18th- and 19th-century buildings and later by the construction of the modern car park access road. The western and, probably, the eastern extremities of the formal paths were found within the excavation but the garden itself may well have extended further to the east.

The garden laid out in the early 1670s was based on a rectilinear grid of intersecting paths running roughly parallel with or at right-angles to Upper Maudlin Street. The paths were all surfaced with a light yellow crushed quartz gravel which, although eroded and patchy, still survived in places up to 20mm thick. Where the width of the paths could be determined this seemed to be a standard 8 feet (2.4m) and extended the full distance between the Pennant sandstone edging slabs. The paths had been disturbed by later features - most notably the Period 4D floor (2) of the cellar adjoining the pedestrian subway, the walls (9) of the Baptist chapel and the narrow Period 4C cellar (84).

The east/west path (215, 304) (Plates 7, 9 & 10) had slumped into the sinking fill of the Period 4A pit 372. Part of the south side of the same path had been removed by the south wall (9) of the Baptist chapel while it had been cut north/south by the side walls of the chapel, the narrow cellar (84), the Period 4C linear features (65 & 127), the floor of a cellar (2) and the modern steps to the pedestrian subway. To the east of cellar 84 it had been cut by Period 4C pits 317 and 330.

The path was edged on its south side by large Pennant sandstone slabs set upright in the soil (314) while on its north it was bordered by the low retaining or terrace wall (202, 305) (Plates 7, 9 & 10). The wall was faced on its south side only, was bonded with a friable grey/white mortar and was, at most, 0.4m wide and 0.3m high. Its west end projected 0.54m to the south, possibly to reinforce it where it was in danger of slipping into the slumping fill of pit 372. The retaining wall was set in a construction trench 356.

At least three, and possibly four, paths ran north/south from the east/west path - crossing it at right angles:

1. The most easterly of these was path 295/366 that lay partly outside the excavated area and had been cut by pit 317 and a rectangular concrete foundation (Plates 9, 10 & 11). Path 295 went north through a gap in retaining wall 202/305, its edges and that of path 366 again being defined by upright Pennant slabs (296, 367, 368).
2. The next north/south path to the west (215) also went through a gap in the retaining wall and had Pennant slabs edging it to the east (290), its west side having been removed by Period 4C cuts 189 and 166 (Plate 8). It is likely that this path also extended south of the east/west path but later pits and walls had removed any evidence for this.
3. The garden was bounded on the west by the north/south wall 86 and another path (363) ran parallel to this, its west edge being about 0.7m from the wall. Here the path had been laid on a thin bedding of black ash and cinders.
4. It is likely that a further north/south path had been removed by the cellar floor (2). The evidence for this was a thin spread of black ash and cinders (72) identical to that used elsewhere for resurfacing the gravel paths (see below) and a thin spread of quartz gravel noted in the south section of the excavation at this point. The presence of a north/south path here would balance the regular grid of paths.

During the life of the garden the paths were extensively resurfaced and patched with thin deposits of material no more than 0.15m thick. These consisted of silty mixtures of

Plate 9 Site 3. Looking east along the terrace/retaining wall 305 with path 304 to its south. The north/south path 295/366 crosses at the top of the photograph and is blocked by Pennant slabs 306 on the line of the wall (Period 4B).

Plate 10 Site 3. Looking west along the terrace/retaining wall 305 showing the junctions of paths 304 and 295/366. The paths are edged with Pennant slabs. (All Period 4B). Circular pit 317 is in the centre (Period 4C).

Plate 11 Site 3. Looking south down path 295 showing the Pennant edging slabs to its east and the line of blocking stones.

black ash and charcoal containing varying amounts of small slate fragments, small stones and flecks of pink, white and grey mortar (203, 212, 213, 277, 292, 303, 315, 321, 343, 345, 349, 352, 362); redeposited natural purple clay and stone (322); and off-white mortar and fragments of Pennant sandstone (360) (Plate 7). Clay tobacco pipe bowls found within these areas of resurfacing suggest that they took place from the 1680s through to the early 1700s. The presence of a clay pipe bowl in context 277 made by John Arthurs who took his freedom as a pipemaker in 1707 shows that the paths remained in use and the layout of the garden unaltered until that date at least.

Some time after 1707 the north/south paths were blocked where they passed through the retaining wall 202/305. A blocking wall 235 (Plate 8) was built on layer 315, a resurfacing of path 215, while path 295 was blocked at its junction with the east/west path 304 by a line of Pennant sandstone slabs (306) set on edge in cut 405 (Plates 9 & 11). Nevertheless paths 304 and 295 apparently remained in use as they seem to have been paved with large Pennant flagstones (312). These flagstones abutted the blocking slabs 306 and had been set directly on the path re-

surfacing layer 303.

At the same time the east/west path 215 was partly blocked by the construction of a rectangular structure of brick with a stone core and bonded with a friable pinkish white mortar (211) (Plate 7). This structure had been set parallel to the retaining wall 202 and measured 1.05m long by 0.59m wide and survived to a height of 0.23m. Its purpose is unknown although it may have formed the base for a piece of garden statuary or an urn. Another small masonry plinth (186) was built just to the east of structure 211 at a slightly later date.

A small structure cut by the north-east corner of the 19th-century chapel may also have been another garden feature. It consisted of a single thickness of Pennant sandstone wall bonded with a hard white mortar and measured at least 1m east/west by 0.9m north/south (168). It was filled with a red-brown sandy loam containing flecks of white mortar or plaster and 17th-/early 18th-century pottery (169), possibly a planting medium. Externally it was abutted by garden soil 160 (see below).

Due to the later 18th- and early 19th-century use of this area for cultivation, it was difficult to distinguish any undisturbed soils belonging to the Period 4B garden that might have formed parts of the flower or vegetable borders flanking the paths. A number of discrete areas of red-brown sandy loam were excavated containing varying quantities of charcoal flecks, small amounts of off-white mortar or plaster flecks, fragments of slate and small stones (112, 160, 200, 236, 364, 386, 391). These can all be dated by pottery, clay tobacco pipes and other objects found within them to the late 17th and early 18th centuries, contemporary with the use of the garden. Layer 391 was clearly part of a garden border, preserved in the angle between the east/west and north/south paths 304 and 366.

It is possible that a few small, shallow pits were the remains of holes dug to plant trees or shrubs (cut 119/fill 118, cut 370/fill 369, cut 376/fill 375). They all contained ceramics of a date contemporary with the use of the garden.

The Site 2 Garden

The evidence found for a garden on Site 2 is likely to have been just a small part of a large formal garden, perhaps similar in size to that uncovered on Site 3. It is possible that the garden also extended to the east across Site 1 but if so then no remains of it were observed during the 1973 excavation.

The remains of the garden comprised a rectangular area measuring 4.2m north/south by at least 6m east/west, the eastern edge of the rectangle lying outside the excavated area. The sides of the rectangle had been defined by narrow slots 0.1m wide and up to 0.12m deep into which Pennant sandstone slabs had been set on edge, although the slabs only survived in the southern and part of the northern slots (gullies 2/76, 3/76, 4/76 & 7/76). The fills of the slots consisted of a dark brown clayey loam and contained 17th-/early 18th-century pottery (AH/76, AI/76). A 1.8m wide gap in the southern end of the western slot appears to have been deliberate.

In the south-west corner of the rectangle there was a small area of stone paving covering an area of about one square metre (structure 1/76). The area within the rectangle, and into which the paving had been set, consisted of a layer of dark brown loam, possibly the remains of cultivation soil (AK/76, AU/76, AX/76, AY/76, BA/76, BD/76, BF/76, BH/76). To the west and south were further areas of possible garden soil (BE/76, BQ/76).

The purpose of the area defined by the edging stones is unclear. It may have been a garden border or vegetable plot. However, the survival of paving in its south-west corner may indicate that the whole of the area was once paved, perhaps being surrounded by flower beds and approached by a path through its western side.

Site 1

A few patches of possible cultivation soil dating to the late 17th/early 18th century were excavated (FU/73, FZ/73, GQ/73, JS/73, MW/73, OB/73, OJ/73, OK/73). These generally consisted of red-brown loam containing small stones, fragments of mortar and varying quantities of charcoal flecks. A layer of black ash (FC/73) produced a considerable amount of clay tobacco pipe fragments including 82 bowls, dating from the mid 17th century to at least 1706, suggesting a gradual accumulation of debris during the late 17th and early 18th centuries.

Two wells probably date to this period. In the north-east corner of Site 1 part of the stone-lining of a well (well 2/73)

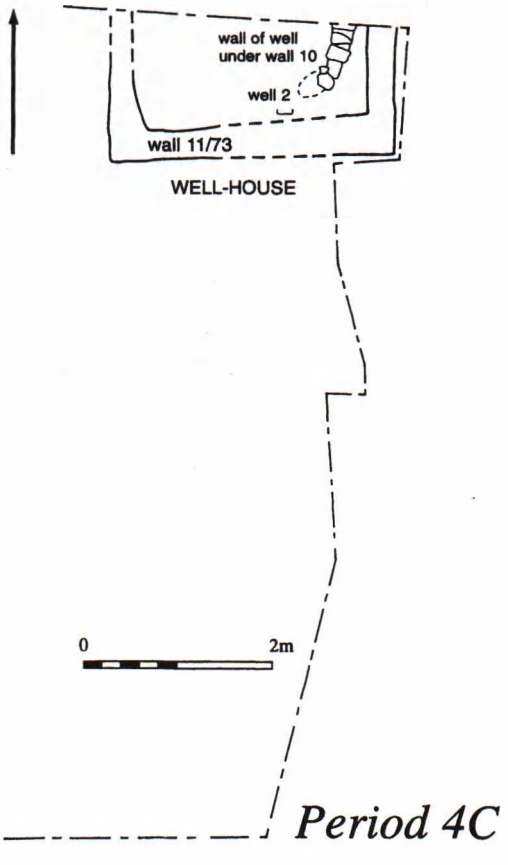


Fig.13 Site 1, Period 4C.

Plate 12 Site 3. Looking east along the terrace/retaining wall 202 showing rubble tipped over it and across path 215 after abandonment of the formal garden (Period 4C).

at least 1m in diameter was noted. The majority of the well either lay below the east wall of the Moravian Minister's House (wall 10/73; Period 4C) or outside the area of the excavation to the north. The well seemed to have been surrounded by a rectangular structure measuring 3m east/west, the northern part of the structure again lying outside the excavation (wall 11/73). The wall was about 0.45m wide and was bonded with a hard pink mortar.

The second well (pit 25/73) (Plate 4), 1.3m in diameter, lay in the north-west corner of Site 1. It had been backfilled with 18th-century material (OE/73, SE/73) and the stone-lining had been robbed away, probably at the time of the construction of the Moravian Chapel (Period 4C).

Period 4C: The early 18th century to the mid 19th century

The land used for cultivation, dumping of rubbish, and the construction of Pembroke Court, the Moravian Chapel complex and the Greyfriars' Conduit

The formal gardens established in the 1670s were in existence for a relatively short period of time. On Site 3 a deposit of loose rubble and mortar (191) (Plate12) had been tipped over the garden terrace wall 202, partly covering the east/west path 215 below: its presence clearly blocked and therefore ended the use of the path. This tip of material contained a number of clay tobacco pipe bowls that date to the early part of the 18th century. In particular there were bowls bearing the names of the makers Thomas Harvey (I) and Robert Tippett (II). From these we can assume that the deposit was not laid down earlier than 1700 when Harvey took his freedom and it is unlikely to greatly post-date 1722 when Robert Tippett (II) died. To the north of the terrace wall a layer of red-brown sandy silt (161) also covered the north/south path, obviously post-dating its use. A clay tobacco pipe bowl from layer 161 bears the name of the maker James Jenkins who did not obtain his freedom until 1707. The archaeological evidence therefore suggests that the formal garden went out of use sometime between 1707 and 1722, or perhaps slightly later. We know that part of the plot was sold off in 1735 and developed as three houses so the garden cannot have existed in its original form after that date (see Section 4 below).

After the abandonment of the Period 4B garden on Site 3, the land formerly completely occupied by the garden was subdivided into at least two separate plots by the erection of a north/south fence. The line of the fence was represented by four post-holes (170, 172, 174, 176). More had undoubtedly existed but had been disturbed by later features. These post-holes, each no more than 0.2m across, were filled with soft dark brown loam containing many flecks of charcoal (171, 173, 175, 177), and the northern posthole (170) still retaining its stone packing. Although these post-holes did not produce any datable finds, they had been cut through Period 4B layer 160 and probably relate to the division of the land in 1735.

There was a clear distinction between the land use on either side of the fence line during Period 4C.

To the east of the property boundary were a number of shallow east/west linear gullies (242-246) which were probably dug during cultivation of the land in the early 18th

Plate 13 Looking south into the stone-lined cess pit 220 (Period 4C).

Site 2

Cut	Fill	Relationship to other features	Date of backfill
1/76	AC/76	Cuts layer AB/76.	First half 18th century.
2/76	AD/76		First half 18th century.
6/76	AQ/76	Under layer AK/76.	First half 18th century.
7/76	AS/76	Under layer AB/76.	First half 18th century.
8/76	AR/76	Under layer AK/76.	First half 18th century.
9/76	AT/76	Under layer AB/76. Cuts layer AK/76.	First half 18th century.
10/76	AW/76	Under layer AL/76.	First half 18th century.
13/76	BJ/76	Under layer BE/76. Cuts layer BK/76.	First half 18th century.
14/76	BL/76 BX/76	Cut by foundation trench G9/76 for Moravian chapel. Under layer BE/76. Cuts layer BK/76.	First half 18th century.
15/76	BT/76	Under layer BQ/76. Cuts layer CK/76.	First half 18th century.
16/76	CB/76	Under layer BO/76.	First half 18th century.

Site 3

Cut	Fill	Relationship to other features	Date of backfill
36/45	35/44	Cut by Baptist chapel walls 9 & 11. Cuts layer 16.	No datable finds. Probably early 19th century.
43	42	Cut by drain 15. Cuts layer 16.	Early 18th century to *c.*1760.
47	46	Cut by drain 15. Cuts layer 16.	Post *c.*1780 to early 19th century.
49	48	Cut by drain 15. Cuts layer 16.	Post 1830s to mid 19th century.
53	52	Cut by drain 15. Cuts layer 16.	Post *c.*1780 to early 19th century.
55	54	Cuts layer 16.	Post 1830s to mid 19th century.
61	60	Cuts layer 5.	Contains clay tobacco pipe made by John Wilson, free 1707. Remainder of pipe bowls date to the first half of the 18th century.
63	62	Cuts layer 5.	Early 18th century.
67	66	Cuts layer 5 and pit 69.	Early to mid 19th century.
69	68	Cut by pit 67 and Baptist chapel wall 9. Cuts layer 5.	Post *c.*1780 to early 19th century.
78/96/151	77/95/149/205/239	Cut by drain 15 and wall 113. Cuts layer 76. Abuts N. face of wall 79.	Sixpence of George VI, 1824-5 (SF16/99). Clay tobacco pipes are early to mid 19th century.
98	97	Cut by drain 15. Cuts layer 16.	No datable finds. Probably early 19th century.
100	99	Cut by Baptist chapel wall 9. Cuts layer 16.	No datable finds. Probably early 19th century.
101	102	Cut by pit 105/184/7. Overlies layer 29. Cuts pit 106.	No datable finds. Early to mid 19th century.
105/184/7	6 (upper fill) 103/104 (lower fills)	Cut by slot 32 and pit 7. Cuts layer 8 and pit 106.	Early to mid 19th century.
106	107	Cut by pits 101 and 105/184/7.	Early 19th century.
108	109	Cuts layer 76. Overlies 220. (Not shown on plan)	Post *c.*1780 to early 19th century.
110	111	Cut by Baptist chapel wall 10. Cuts surface of pit 189/207.	Post *c.*1780 to early 19th century.
123	122	Cut by modern disturbance. Cuts layer 5.	*c.*1720 – 1760.
140	141	Cut by foundation trench 182 for S. wall of Baptist chapel. Cuts layer 138.	18th century.
142	143	Cut by pit 153. Cuts layer 138.	18th century.
153	154/155	Cut by drain 15. Cuts pit 142 and layer 138.	18th century.
157	158	Cut by water tank 19, cultivation slots 24, 26 & 134. Under layer 112. Cuts layer 16.	18th century.
162	163/335	Cut by foundation trench 182 for S. wall of Baptist chapel. Under layer 138. Cuts pit 164.	19th century (but note: probably contaminated by finds from foundation trench 182).
164	165	Cut by pits 162 and 78/96/151. Under layer 138.	Post *c.*1760
189/207	190/201/206	Cut by Baptist chapel walls 10 and 11, chapel foundation trench 166 and pit 105/184/7. Cuts garden path 215, layer 191.	Clay tobacco pipe made by Richard Tylee who worked as a pipemaker in Bath and Bedminster, Som. in the early 18th century.
218	217/231/232	Cut by foundation trench 227 for wall 79. Cuts 216, 223, layer 228.	Clay tobacco pipe bowl with Royal coat of arms on back and dating to late 18th century. Pottery is post *c.*1760.
249	248	Under layer 75. Cuts layer 281.	18th century.
251	250	Under layer 75. Cuts layer 281.	Post *c.*1760.
288	289	Under foundation trench 234 of wall 11 of Baptist chapel.	Post *c.*1760.
308	309	Under layer 75. Cuts layer 281.	18th century.
317	316	Under layer 159. Cuts layer 318.	Post *c.*1760. (PLATE 10)
320	318/319	Cut by pit 317. Cuts layers 281, 303, 345.	18th century.
330	323	Under layer 159. Cut by foundation trench 252 for wall 82. Cuts layer 322.	18th century.
348	347	Cut by pit 317. Cuts layer 322.	18th century.
374	373	Under garden path surface 349. Cuts pit 376 and layer 386.	18th century.

Table 7 Analysis of Period 4C pits.

century. Subsequently these were sealed by a mixture of red clay, loam, brick, stone, tile, slate and mortar (75, 159) which had been tipped in layers down the hillslope forming a deposit at least 0.5m thick. This dumped material contained a large quantity of domestic rubbish dating throughout the 18th century.

To the west the land was used initially for the dumping of rubbish in pits and subsequently for cultivation probably in the gardens to the rear of the three houses built on the Upper Maudlin Street frontage in c.1735.

Rubbish Pits

After the abandonment of the formal gardens on Sites 2 and 3, the land use changed dramatically. Although the area may still have been used for cultivation, a large number of pits were dug apparently for the disposal of rubbish and this activity continued, albeit on a reduced scale, until the early decades of the 19th century. These pits varied widely in their dimensions and the nature of their backfills. An analysis of the Period 4C rubbish pits found on Sites 2 and 3 is given in Table 7.

One pit, lying close to the southern edge of Site 3, is worthy of a more detailed description. This was the only cess pit excavated on the three sites and probably served one of the houses built fronting Upper Maudlin Street in c.1735. A roughly rectangular shaft (219), measuring approximately 1.8m east/west by 1.5m north/south and 1.75m deep, had been dug through the earlier archaeological deposits and into the bedrock beneath. This shaft had then been lined to a depth of 1.2m with a single thickness of stones and fragments of roof tiles and bricks (220); the stone lining being supported on a ledge cut into the natural rock (Plate 13). The upper 1.15m of the fill of the pit consisted of a soft medium brown sandy loam with lenses of red-brown clay and fragments of slate, brick and roof tile (221). In this fill were a number of clay tobacco pipe bowls made by George Ebbery who had taken his freedom in 1721 and was producing pipes until the 1780s. The pottery from the fill is dated to after c.1760. The lower fill of the pit consisted of a typical yellow-green sandy cess material up to 0.4m thick which contained pottery dating from the period c.1720 to 1780 (222).

As stone-lined cess pits were emptied periodically it is difficult to determine when this pit was constructed and first came into use although it clearly post-dated the abandonment of the Period 4B garden. It seems likely that the pit was last used and backfilled during the 1770s or early 1780s.

Layers

After the rubbish pits on Site 3 had been backfilled they were covered with layers of sandy red-brown loam (16, 76, 199, 208), probably cultivation soils, and spreads of cinders (8) and building debris (29/30).

Cultivation Trenches

To the west of the north/south boundary fence on Site 3, the latest period of use before the construction of the Baptist chapel in the mid 19th century (see Period 4D) consisted of the digging of a number of slots, possibly for cultivation purposes (21, 24, 26, 38, 40, 57, 59, 134, 144) (Plate 14). These had been partly truncated by a drain 13 and slot 32, both associated with the chapel. The cultivation slots had cut through the overall layer of cultivation soil (16) in this area and the surfaces of some of the earlier Period 4C pits.

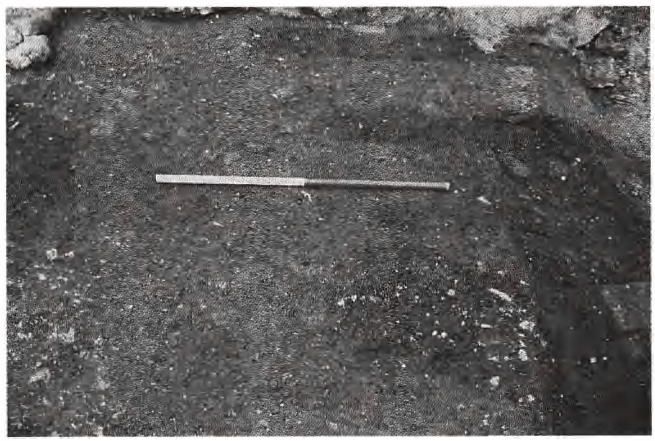


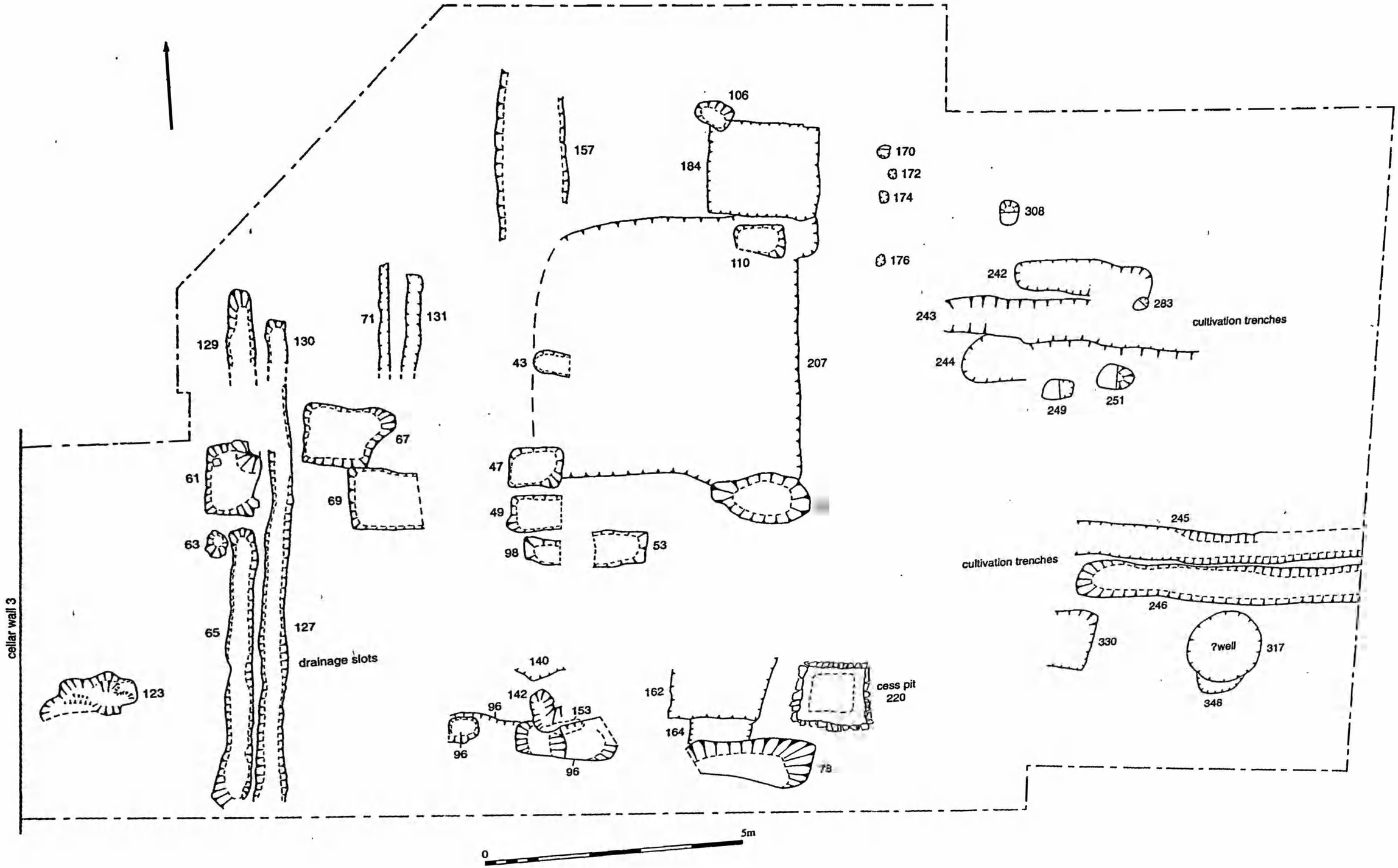
Plate 14 Site 3. Looking north showing, at the top, the outline of cultivation trenches 38 and 40, (Period 4C), the latter having been cut by the remains of drain 13 running north/south (Period 4D).

All the cultivation trenches had sloping sides, rounded ends and were quite shallow, being no more than about 0.1m deep. They were up to 2.6m long by, at most, almost 0.4m wide. The fills of all these slots consisted of a black gritty material containing cinders and fragments of slate, perhaps to assist drainage (21, 23, 25, 37, 39, 56, 58, 135, 145). The few datable finds from these slots suggest that they came into use sometime after about 1780.

Drainage Trenches

Two parallel slots running north/south at most 0.1m apart, cut through the Period 3B(ii) cultivation layers 5 and 351.

Plate 15 Site 3. Looking north within nos. 1-3 Pembroke Court showing the internal dividing walls and under-floor drains (Period 4C).



Period 4C

Fig 14 Site 3, Period 4C.

Slots 65/129/178 and 127/130 had been partly removed by the Period 4D cellar floor (2) but nevertheless extended for a distance of about 10m and were at most 0.5m wide. Slot 65/129 appeared to have been intermittent and may be related to pit 61 (see Table 7). These slots were quite shallow at their northern ends, but further south were vertical sided and reached a maximum depth of about 0.6m against the southern edge of the excavation. To the east were two smaller slots (71 and 131), 0.3m apart and at most 0.14m wide. Only the northern ends of these slots survived, the rest having been truncated by the foundations of the cellar floor.

It is possible that these slots were intended to assist drainage down the hillslope, their fills being similar and consisting largely of small stones and fragments of bricks, roof tiles and slates (64, 126, 156, 179). Fill 64 included a clay pipe made by William Nicholas who became free in 1730 and this, together with the pottery evidence, suggests a date for the slots of between about 1730 and 1760.

Numbers 1 to 4 Pembroke Court

A row of four terraced houses was built fronting Johnny Ball Lane on the western portion of Site 3. These were first occupied in about 1764. The terrace was called Pembroke Court and the houses were numbered consecutively north to south. Only nos. 1, 2 and 3 lay within the area of the 1999 excavation, no. 4 being inaccessible due to the need to leave a wide safety margin between the excavation and the cliff face to the south. The excavation of one of the engineer's trial trenches had damaged the rear wall of nos. 1 and 2.

The Period 4A wall 86 must have still been standing when Pembroke Court was built as after its construction up to 0.8m of dark brown loam (87, 356) was dumped between wall 86 and the rear wall of Pembroke Court.

The overall length of the terrace would have been about 21.8m and its depth 8.5m. The internal widths of the pairs of houses were different, nos. 1 and 2 each being 5m, while nos. 3 and 4 were probably each 4.6m.

Demolished in 1973, all that remained of the houses were the lower portions of the walls, the basement floors of the kitchens and sculleries and the sub-floor drains (Plate 15). The walls survived to a maximum height of 1.5m above basement floor level in no. 1 and 1.4m in no. 3, while the basement floors of nos. 3 and 4 lay 0.57m lower than those of nos. 1 and 2, the former having been cut into the hillslope.

The walls of the houses were built mainly of Pennant sandstone bonded with a coarse, hard light yellow mortar, and rendered internally with an off-white mortar (255). The external north wall of the terrace was 0.6m wide while the front and rear walls were about 0.5m wide. The internal dividing wall between nos. 2 and 3 (268) was 0.6m wide although the dividing walls between nos. 1 and 2 and 3 and 4 (275) were only 0.4m wide. In the front wall of each house there remained the yellow sandstone sills of two windows, each window being about 1.18m wide. A brick arch 0.6m wide in the wall beneath the southern window of no. 1 was probably the remains of an access to a coal chute.

Each house was divided into two rooms by a north/south partition wall (272, 274) 0.3m wide in which could be seen the remains of doorways 1.1m wide with brick thresholds. Against the rear wall of no. 2 there was an L-shaped brick foundation which represented the base of a staircase. The front room of each house still had its original Pennant sandstone flagged floor although the floor of each back room had been replaced with a concrete slab.

The front rooms were all equipped with a large fireplace built of brick, with Pennant sandstone flagged hearths (269, 273). Only the fireplace in no. 1 survived in reasonable condition and this was 1.7m wide by 0.86m deep. The western side of the fireplace showed evidence of having contained a metal range about 0.6m wide and set on a brick plinth.

Only limited excavation was possible within Pembroke Court. The floor slabs had been laid on a compact red-brown sandy silt (256) which was probably the same as the Period 3B(ii) cultivation soil (351) to the east. Beneath the floors and cut into 256 were a series of stone- and brick-lined drains (270, 271, 276, 328) built to serve the houses, although the full extent of these was not revealed. Drain 328, below the back room of no. 1, was particularly well-built, its sides and base being of Pennant sandstone bonded with a hard off-white mortar. It was 0.4m wide internally and 0.45m deep and had been converted at a later date to carry a ceramic sewer pipe.

Immediately outside the rear wall of nos. 2 and 3 Pembroke Court, was a large stone-built water tank (88) with walls 0.4m wide and the remains of an arched roof. It measured 2.4m by 2.7m internally and was 2.3m deep. The roof of the tank had been broken in and it had been back-filled with brick and stone rubble (89) probably at the time of the demolition of the houses. A north/south stone-lined drain (90) had been built against the east wall of the tank and appeared to be contemporary with the tank, although, like drain 328, it had been later adapted to take a ceramic pipe.

Plate 16 Site 1. Looking west along the south wall of the Moravian chapel showing the arched opening in the wall for the Greyfriars' conduit (Period 4C).

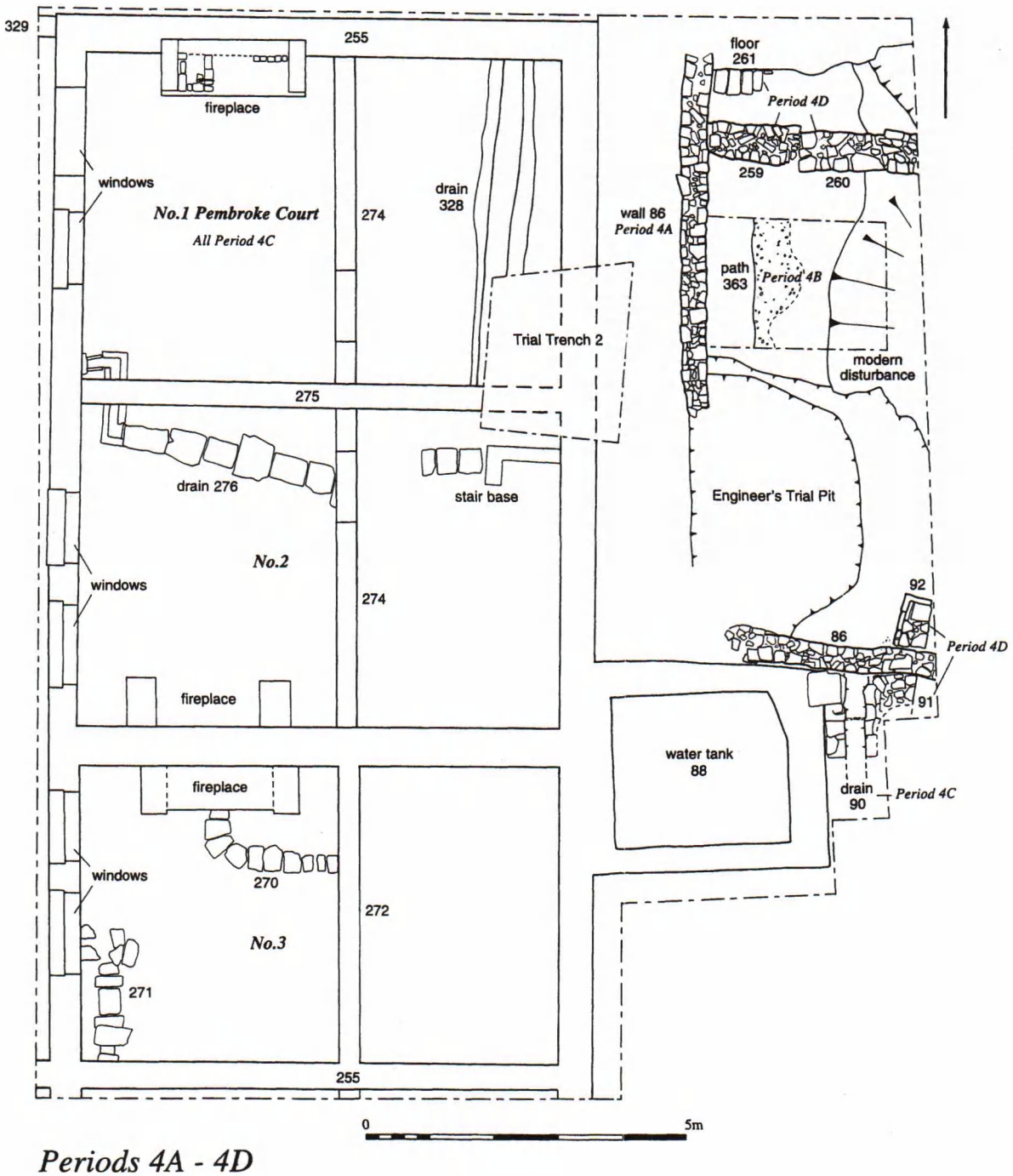


Fig.15 Site 3, Periods 4A to 4D.

This drain had been cut through the Period 4A wall 86 and north of wall 86 it probably turned west to enter no. 2 Pembroke Court, although its course had been destroyed by an engineer's trial pit.

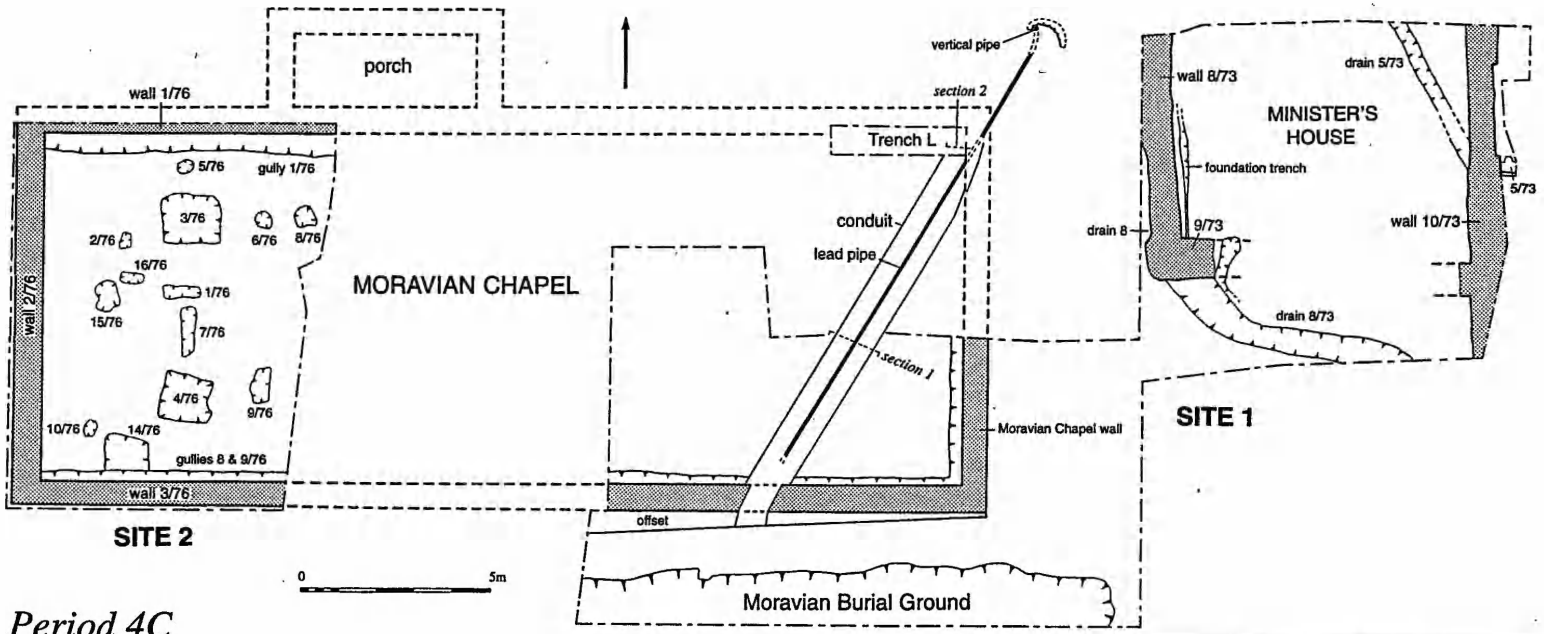
The area between Pembroke Court and Johnny Ball Lane, which was probably occupied by front gardens, could not be excavated for safety reasons. Nevertheless, a fragment of garden boundary wall (329) was uncovered running west from the north-west corner of no. 1 Pembroke Court. A strip of Pennant sandstone paving 0.65m wide was also found immediately in front of no.1 which was lower than the level of the front garden, from which it was separated by a 0.45m wide north/south retaining wall.

Moravian Chapel, Minister's House and Burial Ground

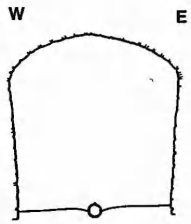
The foundations of the chapel were largely exposed during the excavations on Sites 1 and 2 (Plate16).

On Site 1 the south and east walls (WU/73) of the chapel were removed in order to fully excavate the Roman deposits which were found to survive below them.

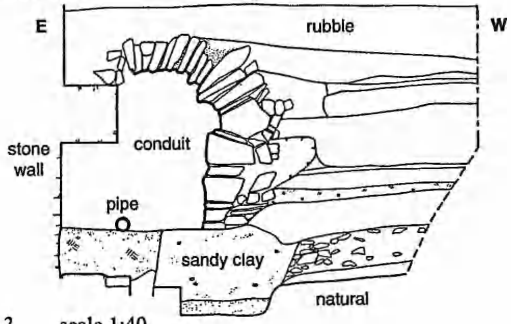
On Site 2 the north, west and south walls of the chapel (walls 1/76-3/76) were found to be between 0.6 and 0.7m



Period 4C



Section 1 scale 1:40



Section 2 scale 1:40

Fig.16 Site 1, Period 4C.

wide and still survived to a height of up to 0.9m. The foundations had been set in narrow construction trenches (AF/76, BC/76, BS/76, BW/76). Between the north and south walls were two opposing rectangular pits (pits 4/76 & 3/76), each measuring about 1.4m by 1.2m, which had obviously held the bases for piers or columns.

The foundations of the west, south and east walls of the Minister's House (walls 8/76-10/76) were found 4m to the east of the chapel. The foundations varied in width from 0.6 to 1m. The majority of the foundation of the south wall was removed to expose the earlier archaeological deposits below. The portion of the building revealed measured at least 5.5m north/south by 7.4m east/west, although it extended beyond the excavated area to the north. It is assumed that this building formed part of the original Minister's House built as part of the Moravian complex in 1756 and altered in the 19th century.

Two drains running diagonally beneath the Minister's House and then turning east appeared to be roughly contemporary with the construction of the building (drains 5/73 and 8/73). The fill of drain 8 (FM/73) contained 18th-century pottery and a mid 19th-century clay pipe bowl while drain 5 cut through the foundations of the Period 4C well-house which pre-dated the Moravian occupation of the site. The structure of these drains was not recorded in the excavation archive and only the slots left by the removal of the drain structures were planned.

A third stone-built drain (OC/73) running north/south in Trench 5W was also probably associated with the Moravian buildings.

The fill (EN/73, ND/73) of the northernmost row of graves within the Moravian burial ground was located about 1.3m south of the south wall of the chapel on Site 1. These graves were not excavated in 1973 and the burial ground was left intact until the construction of a further extension to the University of Bristol Dental School in 1993 (see Section 1.3.3).

The Greyfriar's Conduit

A 15m length of the Greyfriar's conduit was exposed during the excavations on Site 1, running north-east/south-west beneath the Moravian chapel. Although the date of construction of the culvert is not known it is more conveniently dealt with here as it had been partly incorporated within the structure of the chapel.

Between the north-east corner and south wall of the chapel the lead water pipe of the conduit ran within a stone-built culvert. The north wall of the chapel had been adapted to take the culvert and the east wall of the culvert had been rebuilt and integrated within the east wall of the chapel so it seems likely that the culvert pre-dated the construction of the chapel. This is supported by the type of mortar used to bond the stonework in the side walls of the culvert: a hard pink mortar with white lime flecking - a type generally thought to have been used in Bristol in the 17th or early 18th centuries. At its north-east end the arched roof of the culvert, which was mainly of stone but contained some bricks, was bonded with a soft brown sandy mortar more typical of the medieval period. It is probable that the culvert had been partly rebuilt and repaired on a number of occasions.

The culvert was about a metre wide and only just over a metre high with a rounded roof. The structure had been lined with roof slates, most of which had fallen off. At the south end a voussoir arch covered the opening through the south wall of the chapel where the conduit had also been narrowed to 0.6m.

Through the centre of the culvert ran a lead water pipe lying on a layer of red clay. The water pipe, about 0.08m in diameter, had a lap joint along its top. A more recent lead pipe linked up with it at each end where it emerged from the culvert.

North-east of the chapel the lead pipe ran to a stone-sided structure some 0.8m across, which had an angular rather than a curved back on the north, surviving, portion. This structure may have been intended to protect and support the lead pipe that rose vertically within it.

After passing through the south wall of the chapel (Plate 16) the conduit ran around the north and west sides of the Moravian burial ground before leaving the Moravian's land and crossing Blackfriars Lane (see pp37-38).

Water Tank 19

This lay partly below the northern edge of Site 3 and had been damaged by the north wall of the Period 4D Baptist chapel. It was presumably associated with the houses fronting Upper Maudlin Street and was aligned approximately north-east/south-west, measuring at least 1.2m long by 0.9m wide. Its walls (19) were built of Brandon Hill Grit bonded with a hard pinky-buff mortar; the end wall being 0.5m wide while the side walls were 0.3m, all rendered internally. It had a Pennant slab floor. The upper portions of the walls had been removed and the tank was now only 0.5m deep. Its upper fill consisted mainly of rubble derived from its partial demolition in the mid 19th century (73) while the lower fill was a very thin band of dark brown organic material containing oyster shells, animal bone and traces of wood and fibre (74). This organic deposit contained 18th-century pottery and certainly dates from the tank's period of use.

Cellar 84

To the east of wall 79 was a long, narrow cellar-like structure (84) aligned north/south, and measuring 7.4m by 1.3m internally. Its walls, up to 0.5m thick and faced internally, were roughly built of a mixture of Brandon Hill Grit, Pennant sandstone and brick bonded with a hard light grey mortar with many cinder and coal inclusions. The walls had been set in a construction trench (252) which had been cut through the earlier archaeological deposits into the natural, its fill (253, 350) containing pottery post-dating c.1780 suggesting the structure was built in the late 18th or early 19th century. The fill (194) of the cellar dated from its demolition in the 1970s.

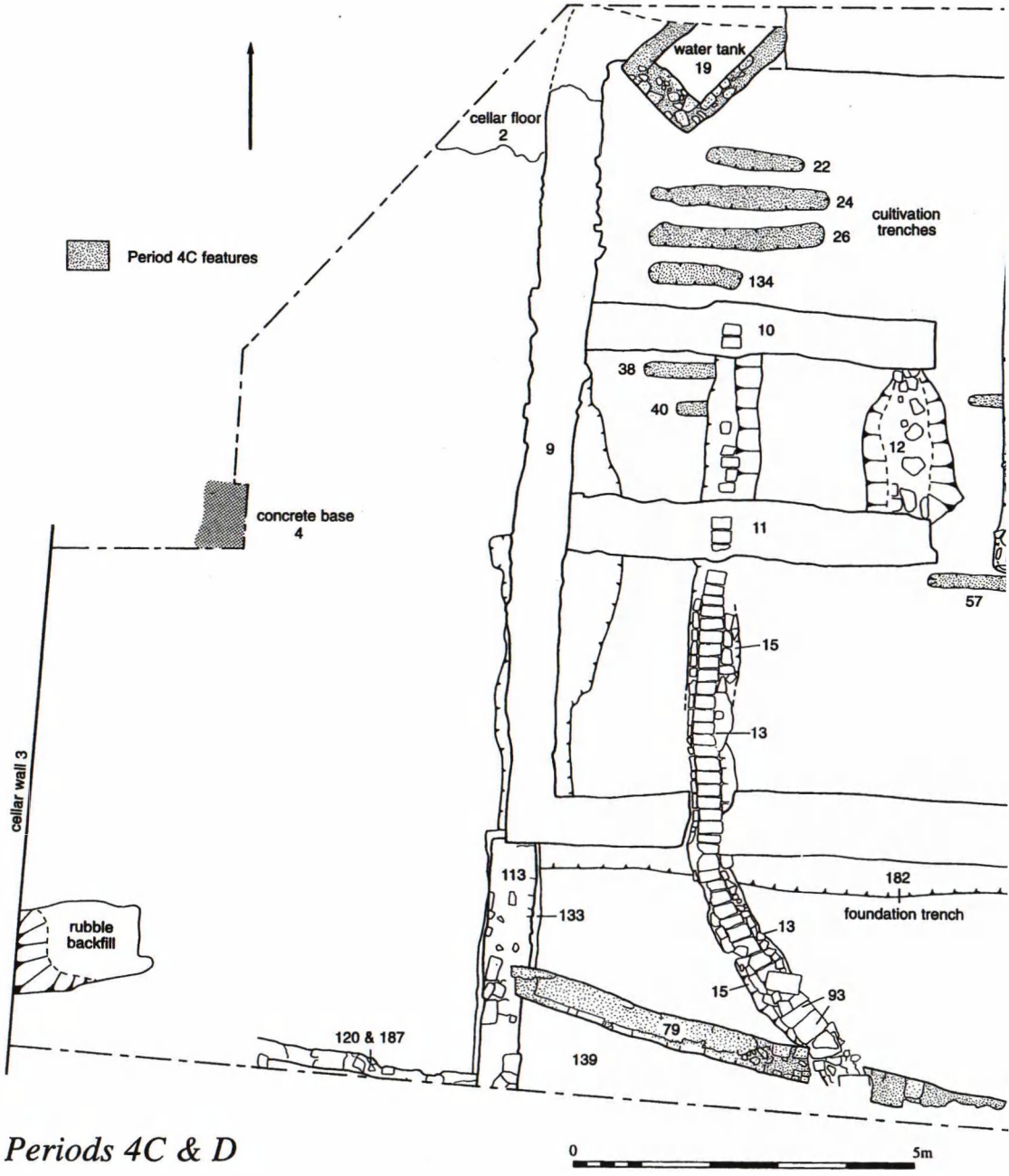
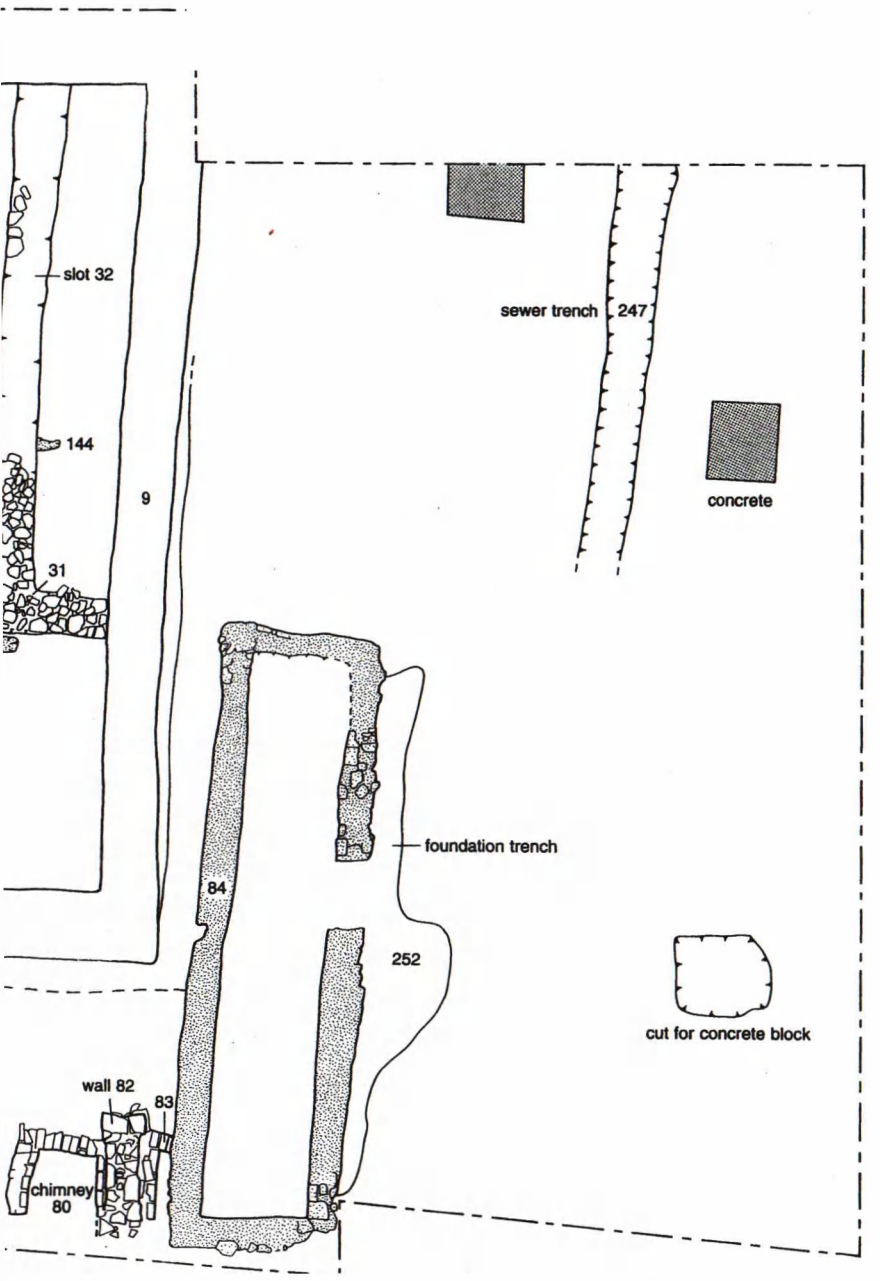


Fig.17 Site 3, Periods 4C & 4D.


slot 32
144
9
31
sewer trench
247
concrete
foundation trench
84
252
cut for concrete block
wall 82
83
chimney
80

Wall 79

East of Pembroke Court and at the southern edge of Site 3 there was evidence of another building which lay on the north side of Blackfriars Lane. The archaeological evidence suggests a date for its construction in the late 18th or early 19th century.

Only a fragment the north wall (79) of the building survived, the remainder of it having been removed by the construction of the car park access road. Wall 79, running roughly east/west, was built mainly of Brandon Hill Grit bonded with a hard off-white mortar. The wall was 7.4m long and 0.5m wide, including the single thickness brick skin on its southern face. The fill (225) of its construction trench (180, 227) contained early to mid 18th-century pottery. The construction trench was sealed by layer 138 containing pottery post dating c.1760 which in turn was sealed by layer 95 containing clay tobacco pipe bowls of the early 19th century. The wall was also abutted by the fill of pit 78/96/151 which dated from the early to mid 19th century.

Period 4D: The mid 19th century to the early 20th century

The construction of the Welsh Baptist Chapel and other buildings

The Welsh Baptist Chapel

The Baptist Chapel was built on Site 3 in the mid 19th century (Plate 1). It was a rectangular structure 12.5m long north/south by 10m wide. There were two internal cross walls running east/west, linked at their east ends by another wall which was removed during machining on site prior to the commencement of the excavation. All the walls (9, 10, 11, 12) were well constructed of Brandon Hill Grit and Lias limestone bonded with a very hard off-white mortar, and were up to 0.85m wide.

Narrow construction trenches for the foundations had been excavated to bedrock. These construction trenches and their fills had the following context numbers:

Cut 18, fill 17; cut 27, fill 28; cut 51, fill 50; cut 115, fill 114; cut 132, fill 192; cut 166, fill 167; cut 182, fill 183; cut 197, fill 198; cut 233; cut 234; cut 258.

Running north/south below the floor of the chapel was a drain built of stone and brick bonded with a hard light grey mortar (13). Where the capping remained it was of stone (93) and it had been floored with rectangular ceramic roof tiles. The drain had been set in a construction trench (cut 15, fill 146) which had been dug through earlier deposits. Its fill (14, 147) contained some 19th-century ceramics. After passing through the south wall of the chapel it turned to the south-east and beyond wall 79 (Period 4C) it had been removed by modern disturbance.

An L-shaped slot (32) up to 0.5m wide and running north/south and then east/west below the floor of the chapel seems to have been associated with the chapel's construction, although its purpose is unknown. It was filled with a coarse black cindery material except at its south end where it was packed with stones in a haphazard fashion (31).

Other Structures South of the Chapel

A wall (113) 3.9m long by 0.76m wide, built of stone and brick and bonded with a grey mortar, linked the south-west corner of the chapel and the west end of wall 79 (Period 4C). It continued south of wall 79 where it had been cut by the car park access road. Wall 113 abutted the corner of the chapel and incorporated the end of wall 79. Part of the west face of wall 113 had been faced with a single thickness of brick, again bonded with grey mortar (152). Wall 113 had been set in a foundation trench (133) whose fill (136) contained late 19th-century pottery. South of walls 113 and 79 was an area of modern topsoil (139).

Extending west from and abutting wall 113 was a wall (120, 187) built of roughly uncoursed stone and only partly bonded with a light grey to white mortar. It was set in a narrow foundation trench (cut 150, fill 409).

Projecting 1.2m north of the Period 4C wall 79 was the base of a possible chimney (80). The north and east walls of this structure were built of a single thickness of bricks, while its west wall was made of a mixture of brick and Pennant sandstone, all bonded with a friable off-white mortar. The walls had been set in a construction trench (196). Its interior faces were vitrified by intense heat. The south wall of the structure had been removed and its relationship to wall 79 could not be determined. The upper fill inside the structure consisted of a loose fill of clinker, ash and broken brick (81) while its lower fill was a layer of burnt sand (195) containing 19th-/20th-century pottery.

Abutting the east side of the chimney was a north/south wall 0.45m wide, built of Lias limestone bonded with a hard off-white mortar (82). This wall was linked to the Period 4C cellar wall 84 by a single thickness brick wall (83).

Building West of the Chapel

All that remained of this building was the west wall (3) of its cellar, parts of the concrete cellar floor (2) and a concrete base (4). Spreads of mortar (70, 71) beneath the cellar floor probably derived from its construction.

Structures East of Pembroke Court Associated with Wall 86

In the middle of the 19th century an east/west wall (259) had been built abutting the west face of the Period 4C wall 86. This was roughly built of Brandon Hill Grit bonded with a very soft brown mortar containing shells and cinders. It was about 0.5m wide and some 1.3m to the east of wall 86 it had been rebuilt as wall 260. The latter wall was built mainly of Pennant sandstone with a few pieces of ceramic roof tile and Brandon Hill Grit, bonded with a similar mortar to wall 259. It was 0.62m wide and survived for a length of 2m before being cut by the construction trench for the modern pedestrian subway. Walls 259 and 260 had no foundations and were built on a layer of cinders and brick and slate fragments which contained 19th-century pottery (263).

To the north of wall 259/260 a small area of a Pennant sandstone flagged floor survived (261) bedded on a layer of off-white mortar (262). To the south of the wall was a dump of stone rubble, brick and roof tile fragments, lumps of off-white mortar and dark brown loam containing mid 19th-

century pottery and clay tobacco pipes (278-280). Overlying floor 261 and wall 259/260 was a layer of rubbish mixed with black loam of late 19th-century date (94, 188).

In the late 19th/early 20th century two small walls (91, 92) were built abutting the southern portion of wall 86.

Sewer

A trench (247) for a ceramic sewer pipe had been dug north/south to the east of the Baptist chapel through layer 75 (Period 4C) and the underlying archaeological deposits.

OWNERS AND TENANTS, GARDENS AND HOUSES: THE SITE IN THE LATE SIXTEENTH TO EIGHTEENTH CENTURIES

by Dr Roger H. Leech

The Northern Part of the Greyfriars Precinct in 1585

The sites of the excavations lay entirely within the part of the former Greyfriars precinct granted by the City of Bristol to Richard Cole in 1585. In the deed of gift the boundaries of this part of the precinct are described in great detail, affording various insights into the changing use of this large precinct on the edge of the city in the fifty years following the Dissolution. A transcript of the grant reads as follows:

Two tenements or lodges, one of old building, the other of late newly built by the said Richard Cole, two closes with an orchard and three gardens one of which adjoins Lewens Meade and was late in the occupation of Margery Vine decd. all within the precincts of the late dissolved house of the Grey Friars, and the parcel of the site buildings and grounds of the same, now in the hands of Richard Cole bounded with walls as follows. Beginning at the uppermost corner of said grounds in the west part towards Maudlin Lane leading from Michael Hill towards the late dissolved house of St James extending from the wall of the corner adjoining Bartilmewe Lane of the west part and stretcheth fourthright with a wall adjoining to Mawdelin Lane, eastwards to a little sesterne howse of the conduit pipe called Alhallou Pipe & contains from the said corner to the said cistern fivescore and three yards, and the said cistern house contains ten feet four inches, and from the cistern forthright with the said wall to the next corner turning downwards towards the said house called St James and contains from the said cistern house to the said corner fifty seven yards, and so directly downwards from the said corner

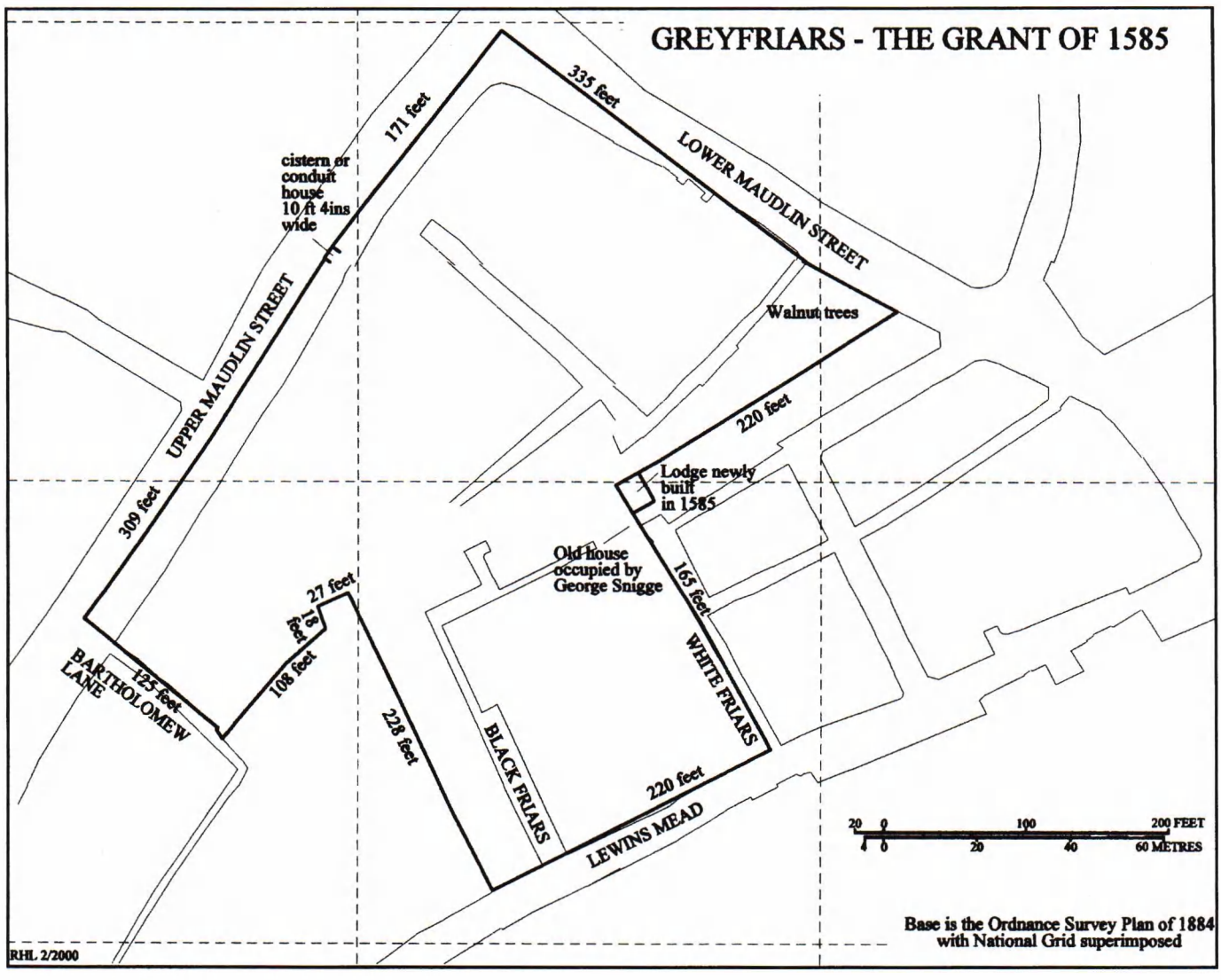


Fig.18 The Greyfriars precinct, the grant of 1585.

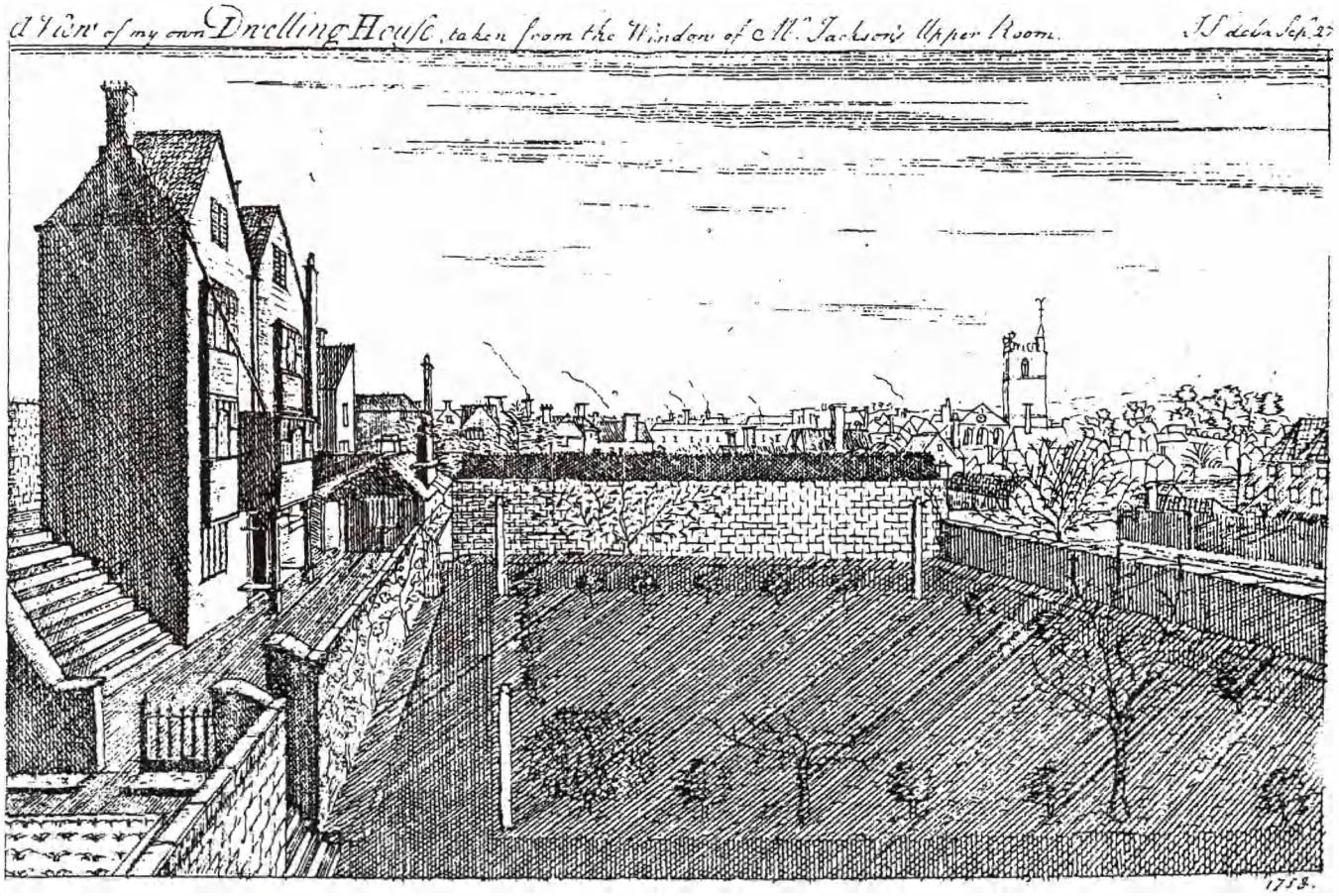


Fig.19 James Stewart's house in Upper Maudlin Street, looking towards the west front of St James' Church, 1753. Reproduced by permission of the Bodleian Library, Oxford. MS Gough Somersetshire 2.

with the said wall leading by St James Lane on the east part unto another stone wall parting the said premises from an orchard in the occupation of George Snigge, esq., containing from the upper corner to lower corner fivescore and eleven yards and two feet and so from the lower corner wherein certain walnut trees now grow directly with another wall westwards to said tenement or lodge newly built, containing from corner where said trees are to the house threescore and thirteen yards and one foot, then the said house itself bounds that corner being nineteen and a half feet in breadth and twenty three and a half feet in length and adjoins an old house now in the occupation of George Snigge on the south, continuing by the west side of George Snigge s house to the uttermost part of the street called Lewens Meade until it comes to another old wall which divides the grounds hereby devised from the grounds of one Robert Cable sometime also parcel of the said dissolved house, in length from said corner to said wall threescore and one yards and two feet and so returns upwards directly with the said wall until it comes to another higher wall of an ascending ground parcel of the premises, containing from said street to the ascending ground threescore and sixteen yards and then returns shortly westwards for nine yards and so "ascendinglie" returns southwards for six yards and then returns westwards forthright until it comes to Bartilimewe Lane thirty six yards and to return upwards again with the said wall adjoining Bartilimewe Lane to the end of the corner of the wall adjoining Mawdelin Lane where these bounds began containing in length for the said wall forty one yards.

(BRO transcript of 35722/1/1, the original having been returned to its owner).

The boundaries of this grant as made in 1585 can be traced with accuracy on the Ordnance Survey 1:500 plan of 1884 (Fig.18). The grant took in the entire area of the Greyfriars precinct on the north side against Upper Maudlin Street, and the part of the precinct containing the main friary buildings against Lewins Mead on the south side. Two parts of the former precinct were excluded from the grant. On the east was the orchard now held by George Snigge: on the west was the property 'sometime also parcel of the said dissolved house' now belonging to Robert Cole.

The grant of 1585 shows therefore that by then the northern part of the precinct was either closes, orchard or gardens, together with the cistern or conduit house which must now lie beneath Upper Maudlin Street (see pp37-38 above). The only buildings within this northern part of the precinct were both to the south of the area of the excavations. These were the two lodges, one 'of old building' and 'one newly built' by Richard Cole. Also within the northern part of the precinct but again outside the excavations must have been the medieval building in

Blackfriars noted by Weare (1893, 33-41; see p35 above). Other buildings too might not therefore have been explicitly mentioned in the grant of 1585.

Lodges or Garden Houses

The two 'lodges' mentioned in the grant of 1585 can be interpreted as having been places of retreat for wealthy citizens. From the fifteenth century onwards, but particularly in the seventeenth century many of Bristol's most prosperous citizens owned or occupied lodges or garden houses on the periphery of the built-up area of the city. Lodges or garden houses generally supplemented a principal residence in the centre of the city. A lodge or garden house served as a retreat, as a venue in which to impress or entertain, its garden as a source of both pleasure and fresh produce. By the seventeenth century the term 'garden house' was more commonly used to describe such properties, houses which stood most often within one corner or at one side of a high walled garden. The newly built lodge of 1585 was so placed, either within the property with which it was granted, or initially intended to be within the corner of the orchard which remained in Snigge's possession (Fig.18). Such houses were best seen from the garden, or from afar. The view from the house was first of the garden and then into the distance. The term 'garden house' aptly encapsulated both house and garden.

One such garden house stood in the north-west corner of the area of the excavations. By 1753 this house was occupied by James Stewart, a schoolmaster whose manuscript history of Bristol is now in the Bodleian Library (MS Gough Somersetshire 2). In Stewart's book of illustrations, prepared to accompany the history, is a drawing of this house and its garden, made by Stewart himself in September 1753 (Fig.19), soon after he had moved here from St Michael's Hill (Leech 2000, 29). The house drawn by Stewart was of four storeys including the attic and garden floor level, of two rooms on each floor, with a central stairs and the chimney stacks placed in each end gable wall. In its form this house was similar to other large garden houses, mostly of the later seventeenth century, for instance that built for Richard Stubbs in 1674 between Lower and Upper Church Lanes in nearby St Michael's parish (Leech 2000). By 1753 it was occupied as a main house, but as built it was of a form most often adopted for lodges or garden houses.

That this was the original function of Stewart's house is given added support by it having been constructed within the midst of a number of lodges or garden houses. To the west was the former precinct of St Bartholomew's Hospital. By the late seventeenth century the upper parts of this estate were occupied by a number of garden houses, including the White Lodge, that of Sir Henry Creswick and three lodges described as such in 1699 and built on the plot immediately adjacent to Stewart's house, on the opposite side of Bartholomew's Lane, later Johnny Ball Lane (BRO 04041 fols.330-1 and earlier references; 30251/Bd/Ch3/2). The precinct of the former Greyfriars was by the later seventeenth century similarly occupied by various garden

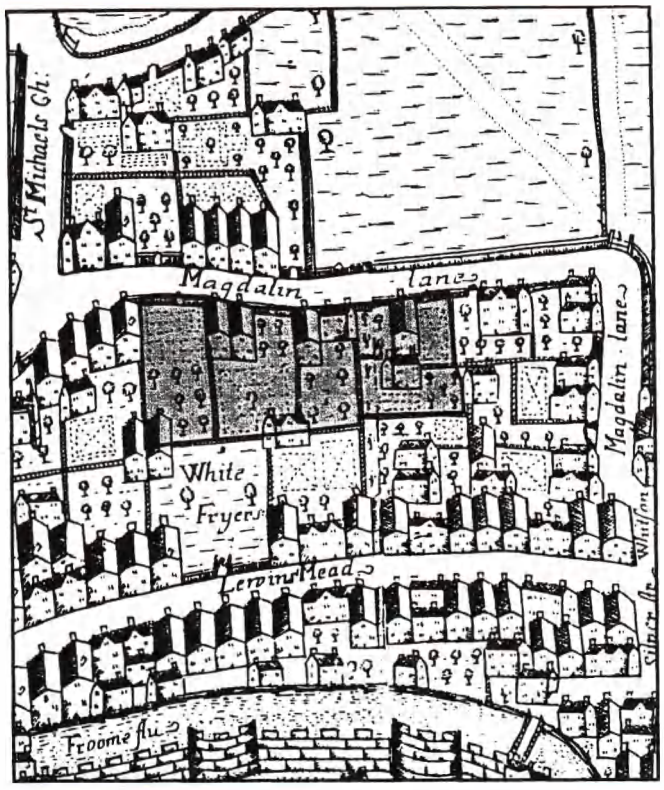


Fig.20 Millerd's map of 1673, site within shading.

houses (Fig.20). To the two lodges existing in 1585 were now added those of a number of prosperous citizens. Immediately to the south of the excavations the now largely rebuilt 'Abbot's House' was occupied by Richard Corsley, a wealthy goldsmith whose city-centre residence lay in High Street close to the High Cross (BRO tax assessments for St James's parish; Leech 1997, 73). Other houses in the immediate vicinity included those of Richard Haynes, resident in Peter Street, and of Thomas and Alice Haggett, resident in St Mary le Port Street (BRO tax and rate assessments for St James's parish). Something of this landscape of garden houses was still apparent in 1753 (Fig. 19). To the south-east was the 'Abbot's House'; further round to the north-east were two houses on a similar contour to Stewart's house, the furthest probably the earliest part of what became from the 1790s the Female Penitentiary, the nearer an unidentified house of similar form which must have been just to the north of the area of the excavations.

Stewart's house had probably been built on the site of an earlier smaller garden house, occupied by Ralph Oliffe, a vintner whose commercial operations centred on the Bear Inn in Redcliff Street close to Bristol Bridge. In the Hearth Tax returns for 1668 and 1673 Oliffe's house is identifiable as the last in St James's parish, the assessors then crossing Johnny Ball Lane and listing the various houses identified already as being within the precinct of St Bartholomew's Hospital (BRO F/Tax/A/1; the returns are ordered by wards, which are not coincident with the parishes of the same name). Oliffe's house is listed as having four hearths in 1668 and three in 1673; with this number of hearths it cannot have been the house much later occupied by Stewart

Plate 17 Houses in Pembroke Court, looking south, May 1973.

and must have consisted of one room on each floor, the same basic plan as the 'Abbot's House'. The lodge newly built in 1585 must have been of similar plan; 19 feet wide and 23 feet long in 1585, it was evidently still standing in 1949 (Aerofilms photograph 21237).

At Oliffe's death his 'garden house in Magdalin Lane' was furnished very much for a life-style of entertainment and pleasure. The rooms are not individually enumerated but can be inferred from the sequence of contents to be found in the probate inventory of his possessions (PRO PROB4/12120). Probably in the kitchen and at garden level were 'a small furnace, an iron grate, a pair of iron doggs, one iron crane, a jack, a rose water still, a brass foot, a brass engine, three brass pots, two brass skillets and posnet, one kettle, a watering cann, bastering ladle, skimmer, a close stool & pann, five dozen of earthen wares, one dozen of platters, three chayres [and] one chafing dish'. The floor above was probably the principal reception room, its contents including 'six green chayres, a green carpet, two tables, a screen, five paire of wooden doggs, a paire of plaine iron doggs, a paire of billoses, a parcell of glasses in the clavy, a looking glass, six pictures, a twigg chayre and cushion, two burning glasses'. Above were probably chambers, one on each of the first and second floors, the cockloft in the roof containing only one 'bedsteed'. The garden was of sufficient size to justify a separate summerhouse, its contents comprising 'one oval table, four pictures, one carpet, two leather stooles and a furnace'.

The site of Stewart's house was by 1699 the garden late of John Machen, since of Robert Penney esq., and now of the widow Cole (BRO 754(8)); Mrs Mary Cole is recorded as living here in 1696 (Ralph & Williams 1968, 84). The house lived in by James Stewart must have been built by about this date. Architecturally the house was characteristic of those built in the 1660s to 90s.

In 1689 Mr Cole had been assessed for a new void house (BRO tax and rate assessments for St James's parish). It would be tempting to identify this as Stewart's house, but incorrect to do so, since the available evidence points to the Cole family as developing the precinct as an estate of garden houses, in much the same way that the Corporation developed the precinct of the Bartholomew's and the Harper family developed the Little Park in St Michael's parish (Leech 2000, 83).

By 1723 the estate of the Cole family was probably reduced to the Old Penetentiary and the houses to the east, to the corner with Upper Maudlin Lane. In the 1690s the Cole estate had been more extensive and a number of houses occupied by prosperous citizens were apparently the freehold of the Cole family, including those occupied by Joseph Kentish, Henry Lake and Dr Cooke. One of the last properties to be owned by the Coles was probably no. 18 Lower Maudlin Street, now part of the site of the Dental Hospital, earlier the garden house of the Haggetts and sold by Thomas Cole, now of Carmarthenshire, in 1735 to Andrew Lloyd a linen draper.

The North Part of the Greyfriars Precinct in the Eighteenth Century

In the eighteenth century this landscape of garden houses was progressively much altered by the subdivision of large gardens and the construction of new dwellings. In 1735 the plot much later the Welsh Baptist Chapel was sold off from the rest of Milborne Taylor's property, and was developed as three houses, all presumably demolished for the construction of the chapel in 1840 (Osborne Clark, bundle of old deeds).

James Stewart's garden was similarly developed for housing after his death in 1759 (Latimer 1893, 242). The house apparently remained, now described as tenements. A large part of the garden became the site of nos. 1-4 Pembroke Court, demolished in May 1973 and excavated in 1999. The row can be described both from photographs and the recollections of the present writer, who was involved at the time of actual demolition in the salvage of architectural features. The row was built as two pairs. The houses were each of four storeys, always rendered, the coupled doorways of each pair with flat hoods on console brackets, the string course and parapet of the lower pair swept upwards below the join (Plate 17). In each the plan provided for a house of two rooms in depth, the stairs alongside the rear room, a

kitchen and scullery in the basement, parlours on the ground floor and chambers above. The entrance halls and stairs were fully panelled. Below the level of the dado rail edge-joined boards were used to provide a plain surface; exceptionally the stairs were fully panelled on the internal partition walls. Some of the panelling and at least two chimneypieces from no. 3 were repositioned elsewhere, lengths of plain boarded panelling in no. 16 Portland Street, Kingsdown, Bristol, at least two of the shouldered chimneypieces from no. 3 at houses in Charlton Adam, Somerset and Romsey, Hampshire.

Entries in the ratebooks for St James's parish show that the houses were first occupied c.1764. The turnover of occupants was rapid. Many of the occupants in the next ten years were sea captains or widows. In 1775 the occupants of nos. 1-4 were a schoolmaster, gentleman, widow and organist respectively.

A third garden or gardens to be subdivided was that of Milborne Taylor and his neighbour to the east, these being the properties fronting Upper Maudlin Street, and on which the Moravian Church was built c.1755-7 (BRO 05588). These extended southwards beyond the excavations of the present report, to include the properties the history of which can be traced back to the seventeenth century. Within the area of the excavations available information is insufficient for conclusions to be made on the configuration of properties prior to their purchase for the Moravian chapel.

THE FINDS

The Flints

by David Mullin

A total of 50 worked flints and 9 pieces of chert were recovered from Sites 1, 2 and 3 at Upper Maudlin Street. This is the largest known collection of lithic material from any site in the centre of Bristol (although an unknown quantity of material was recovered from the excavations at Tower Lane during 1979-1980). Most of the material from the Upper Maudlin Street excavations consisted of waste flakes, but a high proportion of the remainder were retouched pieces, dating to the Neolithic and Early Bronze Age.

Site 1 (BGF73)

A total of 23 flints and 7 chert flakes were recovered from the 1973 excavations. These included six scrapers and possible scrapers, three retouched flakes, two utilised flakes and one core, all of Neolithic/Early Bronze Age date. A backed blade, probably of Mesolithic date was also found. Waste material consisted of two primary flakes of chert; seven complete and two broken secondary flakes; three complete and one broken tertiary flake and three flint chips.

Retouched pieces:

Context	SF No.	Description
QN/73	SF113/73	Retouched tertiary flake, side scraper. 21mm x 19mm. Unpatinated translucent brown flint retouched on one side only.
QN/73	SF114/73	Broken end scraper. 34mm x 32mm. Unpatinated translucent brown flint with retouch around the distal end, the very tip of which has been broken.
QN/73	SF535/73	Backed blade. 22mm x 6mm. Unpatinated translucent brown flake.
ET/73	SF19/73	End scraper. 25mm x 22mm. On secondary flake of unpatinated light brown flint. Retouched at distal end with some crushing on one edge.
HO/73	SF30/73	End scraper. 26mm x 20mm. On secondary flake of unpatinated translucent brown flint retouched on one side and around both the distal and proximal ends.
ET/73	SF582/73	i)Retouched tertiary flake. 23mm x 18mm. Unpatinated light grey, water rolled flint retouched at the proximal end. Possibly a broken scraper.
MB/73	SF555/73	i) Retouched tertiary flake. 28mm x 25mm. Water rolled pale brown flint retouched on the distal end of the dorsal surface. Possible scraper.
KW/73	SF531/73	i) Retouched tertiary flake. 46mm x 20mm. Good quality black flint. Triangular cross section with retouch along the lateral margins.
OF/73	SF530/73	Retouched primary flake. 26mm x 17mm. Water rolled grey flint with crude retouch at the distal end.

Others:

ET/73	SF582/73	ii) Primary chert flake. 28mm x 25mm.
MB/73	SF555/73	ii) Chip of translucent brown flint.
WU/73	SF576/73	Broken tertiary flake. 16mm x 25mm. Heavily patinated grey flint with two blade scars on the drosal surface.
OR/73	SF554/73	Broken secondary chert flake. 24mm x 21mm.
FH/73	SF560/73	Complete secondary flake. 31mm x 14mm. Water rolled light brown flint.
PX/73	SF489/73	i) Burnt flake. 29mm x 23mm. ii) Chip of pale brown, unpatinated flint. iii) Broken chert flake. 24mm x 28mm. Possibly part of a core. iv) Secondary chert flake. 50mm x 22mm.
KW/73	SF531/73	ii) Secondary flake. 38mm x 19mm. Speckled light grey flint with utilisation along one lateral margin

Context	SF No.	Description
		and at the tip. Possibly used as a borer.
RP/73	SF568/73	i) Chip of dark grey, unpatinated flint. ii) Tertiary flake. 20mm x 20mm. Patinated grey flint, terminating at a hinge fracture.
RS/73	SF558/73	i) Chert flake. 28mm x 10mm. ii) Tertiary flake. 24mm x 17mm. Unpatinated dark grey flint. iii) Secondary flake. 36mm x 21mm. Light grey flint with some patination.
QQ/73	SF557/73	i) Secondary flake. 34mm x 22mm. Water rolled light brown flint with two possible blade scars. ii) Large flint lump. 44mm x 44mm. Light grey flint. The lump appears to have been broken in two and a number of flake scars are present all over the surface, on which some cortex remains. Possibly a test piece.
QQ/73	SF556/73	Secondary flake. 26mm x 20mm. Unpatinated light grey flint with flake scars and some battering at the distal end.
FZ/73	SF551/73	Secondary flake. 24mm x 13mm. Utilisation at the proximal end, where the bulb has been removed.
JS/73	SF534/73	Primary chert flake. 37mm x 22mm.
OR/73	SF559/73	Tertiary chert flake. 26mm x 20mm.

Unmodified Flint:

A total of 25 unmodified pieces of flint were also recovered from the following contexts. This flint is all of poor quality and would have been very difficult to work.

Context	*Small Find No.*	*No. of pieces*
FL/73	SF565/73	2
FZ/73	SF551/73	2
GG/73	SF567/73	1
HO/73	SF566/73	1
JS/73	SF534/73	2
MB/73	SF555/73	2
OF/73	SF564/73	1
OR/73	SF559/73	1
PU/73	SF552/73	3
QN/73	SF553/73	2
QQ/73	SF556/73	4
QQ/73	SF557/73	1
RP/73	SF568/73	1
SD/73	SF533/73	2

Site 2 (98/76)

Thirteen items of flint were recovered from Site 2 and these included a possible scraper, a miscellaneous retouched piece, a complete blade and a core. The waste material consisted of two broken secondary flakes, three broken and one complete tertiary flakes and two chips.

Retouched Items:

Context	SF No.	Description
BF/76	SF11/76	Broken tertiary flake. 22mm x 24mm. Retouch along one lateral margin. Unpatinated translucent brown flint.
DH/76	SF210/76	Possible broken scraper. Tertiary flake. 27mm x 18mm with shallow retouch along one lateral margin. Unpatinated light grey flint.

Others:

BH/76	SF23/76	Broken secondary flake. 28mm x 27mm. Unpatinated light grey flint with thin, abraded cortex.
BK/76	SF57/76	Complete tertiary flake. 45mm x 35mm. Unpatinated light grey flint.
CH/76	SF168/76	Broken tertiary flake. 20mm x 18mm. Unpatinated dark grey flint.
CP/76	SF183/76	Complete tertiary flake. 28mm x 20mm. Unpatinated light grey flint.
CS/76	SF187/76	Complete tertiary flake. 32mm x 24mm. Terminates in hinge fracture. Patinated light grey flint.
CX/76	SF195/76	Broken tertiary flake. 19mm x 9mm. Unpatinated light grey flint.
DD/76	SF206/76	Flint chip. Unpatinated dark grey flint.
DZ/76	SF218/76	Complete blade. 36mm x 17mm. Lightly patinated light grey flint.
BU/76	SF238/76	Broken secondary flake. 23mm x 25mm. Signs of utilisation on one lateral margin. Dark grey water rolled flint with thin, smooth cortex.
CB/76	SF246/76	Chip of dark grey, unpatinated flint with thin, smooth cortex.
BP/76		Single platform core. 34mm x 30mm. Unpatinated speckled grey flint with three blade scars all of the ratio 3:1.

Site 3 (1999.7)

A total of 14 flints and two pieces of worked chert were recovered from the 1999 excavations. This included a battered side and end scraper of probable Late Neolithic date, two broken blades, a core trimming flake and a possible core rejuvenation flake. The waste material consisted of four complete and one broken secondary flakes and two complete and four broken tertiary flakes.

Retouched Items:

Context	SF No.	Description
225	SF134/99	End scraper. 37mm x 32mm. Unpatinated dark grey flint. Retouch around distal and and sides, but all heavily battered, especially on the dorsal surface, suggesting subsequent use as a hammer stone.

Others:

138		Large tertiary waste flake. 48mm x 42mm. Patinated light grey flint.
410		Flint chip. Dark grey unpatinated flint.
281		Broken tertiary flake. 24mm x 20mm. Dark grey patinated flint.
406		Broken tertiary chert flake. 22mm x 20mm.
71	SF169/99	Broken blade. 18mm x 14mm. Light grey unpatinated flint.
238	SF132/99	Proximal end of a broken blade. 15mm x 15mm. Heavily patinated and water rolled.
358	SF234/99	Broken core trimming flake. 24mm x 15mm. Unpatinated dark brown flint. Some signs of edge damage.
351	SF259/99	Broken tertiary flake. 22mm x 14mm. Dark grey unpatinated flint.
351	SF258/99	Tertiary flake. 22mm x 18mm. Unpatinated water rolled brown flint.
351	SF236/99	Broken secondary flake. 21mm x 14mm. Unpatinated dark brown flint.
351	SF237/99	Secondary flake. 39mm x 21mm. Black flint with slight patination.
351	SF219/99	Secondary flake. 28mm x 23mm. Light grey unpatinated flint.
351	SF255/99	Utilised secondary flake 34mm x 26mm. Unpatinated chert with utilisation along one edge.
406	SF256/99	Possible core rejuvenation flake. 22mm x 27mm. Heavily patinated, water rolled grey flint.
410	SF253/99	Broken tertiary flake. 16mm x 18mm. Unpatinated dark grey flint.

A further eight unmodified pieces of flint were recovered from context 351, all of which were of poor quality, water rolled flint, possibly from a local gravel deposit. Small find 254/99 from context 411 is also unmodified, water rolled flint.

Interpretation

The majority of the material recovered from the three excavations comprised of waste flakes. These are summarised below (classification following Saville 1990, 155).

Classification	Complete	Broken	Total
Primary	0	2	2
Secondary	5	11	16
Tertiary	6	9	15

In addition six chips (less than 20mm x 20mm) were recovered.

The absence of primary waste is notable from the assemblage (the two primary flakes that were recovered were both of chert) and suggests that flint was being imported to the area in the form of pre-prepared nodules with the cortical outer surfaces removed.

Flint and chert are not local materials to Bristol, although small amounts of low quality flint occurs in gravel and stream deposits in the area. It appears that attempts were made to utilise some of this type of material (see for example small find nos 132/99, 256/99 and 258/99 from Site 3 and 582/73, 555/73 and 530/73 from Site 1) but the results were generally poor. The nearest source of high quality flint is the chalk areas around Marlborough, Wiltshire, 50km to the east of Bristol and the nearest source of chert is the Blackdown Hills in Somerset, 75km to the south-west.

A large proportion of the material has been retouched (24% compared with a usual average of 5-10%) and most of these pieces are scrapers. End scrapers are the predominant type, but these have a long chronology throughout the Neolithic and Early Bronze Age and close dating is not possible. This is true of the other items in the assemblage, with the only diagnostic piece being the Mesolithic backed blade (SF535/73) from Site 1. The nature of the prehistoric activity on the site is difficult to assess, as none of the material comes from primary Neolithic or Early Bronze Age contexts, but a series of visits by people over a fairly long period of time taking part in activities which involved the use and maintenance of flint tools is a reasonable (if fairly conservative) interpretation of the assemblage.

The Pottery

by Rod Burchill

Introduction

The total quantity of pottery from the three sites considered in this report - Site 1 (BGF 73; Greyfriars top site), Site 2 (98/1976) and Site 3 (1999.7) - which has been analysed and discussed below amounts to 12,115 sherds.

The writer was responsible for the identification and analysis of all the pottery from Sites 1 and 3 and the Romano-British pottery from Site 2. The post-Roman pottery from Site 2 had been previously identified by Vince Russett, the resulting data being analysed by the writer.

All the pottery recovered during the excavations was examined; however, only the sealed and stratified deposits are discussed here.

The pottery was examined for fabric and, where identifiable, form. To assist with dating the Romano-British material was assigned to a site specific type series (RFT) and compared with dated fabrics and forms from other local sites, principally Inns Court (Burchill forthcoming a) and to a lesser extent those at Marshfield (Ward 1985), Gatcombe (Brannigan 1977) and Chew Valley Lake (Rahtz and Greenfield 1977). The post-Roman pottery was not assigned a site specific type number but was identified by comparison to the Bristol Pottery Type series (BPT) (Ponsford 1998; Burchill forthcoming b).

The assemblage has been studied primarily as a dating

medium; however, a factor that complicated the dating of stratified contexts by the pottery found within them was the relatively high level of residuality - the occurrence of pottery broken in an earlier period in deposits of a later date. This was particularly evidenced by high levels of Romano-British material in medieval and post-medieval phases.

For the purposes of this report the site has been divided into four periods and a number of sub-periods: (1) Prehistoric; (2) Romano-British, divided into 2A: late 2nd/early 3rd century, 2B: late 3rd/4th century, and 2C: 5th century; (3) medieval, divided into 3A: 11th to mid 13th century, and 3B: mid 13th century to 1538; (4) post-medieval divided into 4A: 1538 to c.1670, 4B: c.1670 to early 18th century, 4C: early 18th century to mid 19th century, and 4D: mid 19th century early 20th century. No pottery was recovered from Period 1 and pottery associated with Period 4D contexts was only recovered from Site 3.

The Assemblage

The assemblage consisted of 12,115 sherds of which 713 sherds (5.8%) were unstratified and unless of intrinsic interest were not considered further. Of the total assemblage 1,963 sherds (16.1%) were Romano-British, 1,195 sherds (9.8%) were medieval and 6,640 sherds (74%) post-medieval.

Period 2: Romano-British

A group of 521 sherds dominated by the products of the Dorset Black-burnished ware industry (41%) and local, Congresbury grey wares (23%). Oxford Colour Coated wares were the next largest group accounting for some 5% of the assemblage. The presence of shell tempered wares of South Midland type gave an end date to this part of the assemblage of sometime in the 5th century.

Period 2A (late 2nd/early 3rd century)

The pottery suggests that the earliest Period 2 feature was slot 2/73 (context PR/73) which contained part of a BB1 straight sided dish (RFT21) - a so-called dog-dish of late 2nd or early 3rd century date.

Period 2B (later 3rd/ 4th century)

A series of gullies (contexts ER/73, DR/76 and DT/76, DV/76 and DW/76) and a pit (DX/76 and DZ/76) all probably date to the very late 3rd or 4th century: context ER/73 (gully 1/73) contained part of an Oxford Colour Coated mortaria (RFT3), whilst gullies 10/76 and 20/76 contained 4th-century Congresbury greyware (RFT36) and a sherd of slip coated black-burnished ware, a type not occurring until after c.250 AD.

Pit 33/73 can be dated to the first half of the 4th century by the presence of an Oxford Colour Coated bowl and a wide-mouth Congresbury greyware jar in context SB/73. Context SA/73 contained a greyware copy of a BB1 jar with a wide, strongly everted rim of probable mid 4th-century date. The pottery provided insufficient evidence to date the other Period 2B pits with any degree of accuracy.

Pottery associated with a wall (wall 9/76 - contexts BG/76 and DL/76) included strongly everted rim jars and straight sided bowls in both black-burnished (RFT21) and Congresbury (RFT36) fabrics of probable very late 3rd- or 4th-century date. Context BG/76 also contained two sherds of Severn Valley ware of 2nd-century date, presumably residual in this context.

A BB1 jar with strongly everted rim recovered from the Period 2B(iii) furnace (furnace 1/73 - context RA/73) probably dates the feature to the second or third quarter of the 4th century.

Period 2C (5th century)

Ceramic evidence for Period 2C activity was only recovered from Site 2. The material included quantities of later 3rd- to very late 4th-century pottery, but as a group is dated by the presence of a shell tempered fabric in the South Midlands tradition (RFT45). The shell tempered ware provides a probable end date for Romano-British activity on the site, this being sometime in the 5th century. A number of the Congresbury grey ware vessels (RFT36) may also date as late as the early 5th century.

Period 3: Medieval

Period 3A (11th to mid 13th century)

Period 3A is represented by a small group of 336 sherds, 241 (72%) of which are residual Romano-British fabrics. As a whole the group is dated between 1080 and 1225 AD.

Residual Romano-British pottery was particularly evidenced in context MB/73 - a stone spread, context OF/73 - the fill of a ditch - and context OQ/73. A single sherd from a Ham Green B-type jug (BPT27) dates the stone spread to between 1125 and 1170. The fill of the ditch (OF/73) included a fragment of a Southeast Wiltshire quartz gritted jug (BPT18C), Ham Green cookpot in the coarser BPT114 fabric, Ham Green B-type jug (BPT27) and a fragment of a cookpot in the ubiquitous flint tempered fabric BPT46. None of the pottery is likely to be later than 1200 AD although the B-type jug could be as late as 1225. The absence of Bristol/Redcliffe wares (BPT118) suggests the ditch had gone out of use by around the 1230s.

On the ceramic evidence the possible floor (JW/73) is contemporary with ditch fill OF/73 containing fragments of Ham Green cookpots (BPT32 and BPT114) and a Ham Green B jug (BPT27).

A pit (context CK/76 - pit 15/76) contained a single sherd from a Northwest Wiltshire tripod pitcher (BPT18). These vessels are common on Bristol sites between about 1080 and 1200 AD and cannot be closely dated.

Period 3B (mid 13th century to 1538)

A group of 1,155 sherds of which 445 (38%) are residual Romano-British wares. Period 3B can, on ceramic evidence, be divided into two context groups:

Period 3B(i) (mid 13th to mid 14th century)

Contexts FA/73, GC/73, GE/73, GJ/73, KW/73, NX/73, OL/73, OJ/73, QN/73, QQ/73, RC/73, RD/73, AZ/76, BZ/76, CC/76, CH/76, 5, 286, 287, 293, 299, 302, 334, 395,

377, 390, 393 and 418. The group contained locally common medieval wares none of which are later than 1350 in date. This period saw the first appearance of imported post-Roman wares on to the site - all from south-west France including the plain green glazed jugs BPT156 and 157, the finer metallic green jugs (BPT40) and the rare BPT155, a yellow-green glazed vessel with brown contrast decoration outlined with twin grooves, this latter type is dated 1280-1320. Two other French imports were also identified: from northern France was part of a jug in a fine white buff fabric with rare quartz and stone grits and a clear green flecked green glaze - BPT 239 (context 339), and a sherd of BPT192 (context 351), a presently unsourced French fabric, always jugs with low-angle strap handles and thumb-nail indented applied strips (Ponsford 1983).

On ceramic evidence drain 7/73 (contexts GE/73 and NX/73) is contemporary with a floor - context FW/73 and GC/73 - both are dated between 1250 or perhaps a little earlier and c.1300. Pit 11/76 (AZ/76) contained a single sherd from a south-west French jug dating between 1250 and 1400 AD.

Period 3B(ii) (1400-1538)

Contexts 241, 339, 351 and 387 are dated to after 1400 by the presence of Malvernian wares (BPT197) which first make an appearance in the Bristol area c.1400 AD (Ponsford 1988).

Period 3B also included a small number of sherds of early 11th-century date including two sherds of BPT2 in context 351, one sherd of BPT3 in context 5 and twelve sherds of BPT309 (contexts 293, 351 and 393). Context 351 also contained three sherds of BPT10, a probable development of BPT309 dating between 1080 and 1120. All were residual in these contexts.

Period 4: Post-Medieval

Period 4A (1538 to c.1670)

A small group of 277 sherds. Residual Romano-British wares accounted for 54% of the group along with 38 sherds of medieval date (14%).

After excluding the residual material the group was dominated by the products of the Somerset pottery industry (77% of non-residual material) mostly from Nether Stowey (BPT280) along with lesser quantities of Wanstrow (BPT96) and Donyatt (BPT268) wares.

Imports were few in number but included from the Rhineland sherds of Frechen stoneware (BPT286) from context AM/76, 406 and 415, and the slightly earlier Raeren stoneware from contexts 326 and 406. Two sherds of Spanish tin-glaze pottery (BPT300) came from EO/73 and AM/76. The two latter sherds have not been seen by the writer but were described by Russett in the original pottery notes as 'not Seville'. Context 381 contained two sherds of North Netherlands Maiolica (BPT344) which date between 1550 and 1600.

Of the features associated with this phase, only gully 5/76 (AM/76) can be dated with any accuracy to between 1550 and 1600.

Period 4B (c.1670 to early 18th century)

Residual Romano-British and medieval wares still accounted for 27% of the total Period 4B assemblage of 1,833 sherds at 16% and 11% respectively. No one industry dominated at this time; however, products of the Somerset redware industry were still the most common pottery found at c.17% of the Period 4B assemblage and North Devon Gravel Tempered wares (BPT112) continue to be common (14%). This period sees the appearance of locally made tin-glazed earthenware (BPT99) (14% of the group) and yellow slipware (BPT100) (10%). Production of both these types began in the middle of the 17th century and continued until the end of the third quarter of the 18th century. English, including local Bristol, stoneware also makes an appearance in the second half of the 17th century; however at 4% it remains a minor element of the Period 4B assemblage.

Imports included Frechen and Raeren stoneware, and a fragment of a lebrillo - a large Spanish bowl (BPT281) in context 344 - all residual in these contexts. These large Spanish bowls are not common in Bristol but examples have been found on several Bristol sites including Temple Street, Greyfriars (lower site), Rackhay (Ponsford & Burchill 1995) and Narrow Quay (Good 1987) where parts of five or six vessels were recovered from the dock fill. The imported pottery also included twelve fragments of Westerwald stoneware (BPT95) mostly tankards. Importation of this German stoneware started around 1600 or soon after and continued into the 18th century.

The group also includes a few sherds (5) of white salt-glazed stoneware (BPT186), a key date type that starts around 1720.

Period 4C (early 18th to mid 19th century)

Due to the nature of a number of the deposits, i.e. garden soils, particularly on Site 3 - a number of contexts were not studied in full, their analysis being restricted to quantification and dating.

The group consisted of 5,518 sherds of mostly 18th- and 19th-century types. The level of residuality in this phase was low.

Much of the pottery was typical for the period with the first appearance of Cream Ware (BPT326), a type common from around 1760, Transfer Printed Ware (BPT278) from c.1780, Mocha Ware (BPT223) and Pearl Ware (BPT327). Small quantities of J.J. White's Bristol Black Ware (BPT311) and Wedgewood's Egyptian Ware (BPT313) were also recorded. Context 16 contained an English copy of a Westerwald tankard. Also recovered from Site 3 was a single sherd of Normandy Gritty Ware (BPT342) of early 13th-century date, a rare type for Bristol.

Period 4D (mid 19th century to early 20th century)

A group of 1,409 sherds most of which should be considered residual in these contexts. As with Period 4C a number of deposits were quantified only. Period 4D pottery was only recovered from Site 3.

POTTERY TYPES PRESENT

Romano-British

(RFT = Romano-British Fabric Type Series)

RFT1 Hard dark grey fabric with no visible inclusions. Rouletted wheel decoration.

RFT2 Hard buff fabric with buff to grey core. Very rare quartz, iron ores and black grits. Brown colour wash. Grooved decoration on type sherd.

RFT3 Oxford Colour Coated ware.

RFT4 Hard sandy orange fabric with orange to grey core. Abundant fine to medium quartz, rare iron ores. Type sherd has internally beaded rim and multiple groove decoration.

RFT5 Hard pink/buff fabric with rare ?iron ores. Traces of orange colour wash.

RFT6 Hard sandy fabric containing abundant quartz and very rare iron-ores.

RFT7 Hard orange fabric with grey core. Rare white flecks and iron ores. Red colour coat. Surfaces are micaceous where colour coat is missing. Morataria with quartz and iron ore trituration grits.

RFT8 Dark grey/black fabric. Black external buff internal surfaces. Common fine to coarse quartz, rare flint or chert. Surface sparkle.

RFT9 Soft to hard brown fabric, abundant fossil limestone. Much surface pitting

RFT10 Red brown slightly sandy fabric. Dark brown externally with orange brown inner surface. Abundant fine quartz and rare iron ore.

RFT11 Hard grey slightly micaceous fabric. No visible inclusions.

RFT12 Buff fabric with grey core. Common very fine quartz, very rare white grits. Micaceous surfaces.

RFT13 Grey buff fabric with buff core. No visible inclusions. Possibly burnished.

RFT14 Orange buff fabric with grey core. Rare limestone and iron ores.

RFT15 Brown soapy fabric with dark grey core. Very abundant shell.

RFT16 Buff brown fabric with white slip on both surfaces. Abundant fine quartz. Mortaria with quartz trituration grits.

RFT17 Hard grey fabric. Abundant quartz rare white flecks. Type sherd is a simple rim with external groove. Congresbury.

RFT18 Very hard grey fabric with common quartz and rare grey grog. Burnished surfaces. Type sherd is an everted rim jar. Probably Congresbury.

RFT19 Hard sandy grey fabric buff externally. Common quartz and rare grog.

RFT20 Hard buff-brown fabric with grey core. Abundant fine to medium quartz.

RFT21 Southeast Dorset Black Burnished ware.

RFT22 Hard sandy grey fabric with dark grey core. Abundant quartz.

RFT23 Hard pink-buff fabric. Abundant very fine coloured quartz and rare iron ores. Mortaria with quartz trituration grits. Oxford white ware group.

RFT24 Hard orange fabric with grey core. Rare very fine iron ores. Micaeous surfaces traces of buff colour coat. Mortaria with quartz and ?haematite trituration grits.

RFT25 Hard brown-black fabric with dark grey-brown core. Abundant fine quartz, common mica, rare iron ores.

RFT26 Hard brown fabric. Abundant fine to medium quartz, sparse flint, rare to sparse black grits (possibly shale or mudstone). Traces of vegetable matter on one sherd. Fine holes on surfaces.

RFT27 Hard sandy orange-brown fabric with brown occasionally grey core. Abundant coloured quartz, rare carbonised matter.

RFT28 Hard soapy grey fabric buff-brown externally. Sparse to moderate white grits (?Dolomite), rare quartz. Groove decoration. Rather open coarse fabric.

RFT29 Hard sandy grey to brown fabric orange internally, orange-brown externally. Abundant fine to medium quartz, rare iron ores, ?carbonised matter. Wheel made vessel with internal throw lines, possibly removed from wheel with a wire.

RFT30 Hard grey fabric. Micaceous surfaces but no visible inclusions. Fine holes in surfaces. Congresbury.

RFT31 Grey buff fabric, grey internal and blue-grey external surfaces. Large jars - similar vessels were found at Inns Court (Burchill forthcoming a), Marshfield (Ward 1985) and Bagendon (Clifford 1961).

RFT32 Samian ware.

RFT33 Hard sandy orange fabric with brown core. Abundant fine quartz, rare iron ores and white grits.

RFT34 Southwest White slip ware.

RFT35 Very hard orange fabric, darker externally. Abundant surface mica, very rare quartz and iron ore.

RFT36 Hard smooth grey fabric with sparse black grits, rare quartz and coarse white grains. Sometimes micaceous. Congresbury.

RFT37 Hard sandy orange buff fabric with abundant quartz and sparse red iron ores or grog. Very micaceous surfaces. Faint traces of red colour coat or wash.

RFT38 Hard brown fabric with abundant mica and white slip. Mortaria with quartz trituration grits.

RFT39 Buff brown fabric. Fine quartz matrix, surface mica. Severn Valley.

RFT40 Hard orange fabric sometimes with buff-grey core. Few visible inclusions but including very rare fine iron ores, quartz and buff/orange grog.

RFT41 Hard grey buff fabric with very abundant quartz. Overall white slip or wash.

RFT42 Hard sandy grey fabric, brown external surfaces.

Abundant quartz, sparse to moderate quartzitic sandstone, rare iron ores.

RFT43 Hard gritty grey fabric with very abundant quartz and rare grey grog. Deep multiple grooves. Coarse fabric.

RFT44 Hard orange buff fabric. Common very fine white flecks, rare iron ores. Micaceous surfaces. Brown or red colour coat or wash. Possibly Oxford.

RFT45 Hard buff to brown fabric with very abundant shell.

RFT46 Moderately hard pink-buff fabric. Sparse iron ores, very rare quartz. Brown slip or wash.

RFT47 Orange fabric with grey core with micaceous surfaces and a brown slip. No visible inclusions.

Post-Roman

(BPT = Bristol Pottery Type Series)

BPT2 Cookpots in a 'soapy' hard grey fabric containing abundant limestone. 1000-1070 AD.

BPT3 Hard gritty brown fabric containing common quartz, moderate limestone and sparse shell. 1000-1070 AD.

BPT10 Cookpots in a 'soapy' hard grey fabric with buff-brown surfaces. Common quartz, limestone and rare iron oxides. Probably derived from BPT309. 1080-1120 AD.

BPT18 Northwest Wiltshire tripod pitchers. 1080-1200 AD.

BPT18c Southeast Wiltshire tripod pitchers. 1080-1200 AD.

BPT26 Ham Green A-type jug. 1120-1170 AD.

BPT27 Ham Green B-type jug.1170-1300 AD (can be dated by style).

BPT32 Ham Green cookpot. 1140-1300 AD (can be dated by style).

BPT40 Southwest French jugs with metallic green glaze. 1280-1320 AD.

BPT46 Calcaraeous, flint tempered cookpot fabric. Probably west Wiltshire. 1150-1300 AD (can be dated by style).

BPT74 Bristol/Redcliffe cookpots - sandy fabric. 1275-1400 AD.

BPT81 Spanish oil jars. 1500-1700 AD by type.

BPT82 Marbled slipware. North Italy especially Pisa. 1550-1725 AD.

BPT84 Northwest Wiltshire wheel thrown vessels. 1300-1500 AD.

BPT85 Bristol small everted rim jars. 1250-1400 AD.

BPT95 Westerwald stoneware. 1600-1800 AD.

BPT96 Wanstrow (east Somerset) wares. 1550-1800 AD can be dated by style).

BPT99 English tin-glazed earthenware. 1650-1780 AD.

BPT100 Bristol or Staffordshire yellow slip wares. 1650-1800 AD.

BPT108 North Devon slip and sgraffito. 1625-1750 AD.

BPT109 Metropolitan type slipware. 1650-1750 AD.

BPT112 North Devon Gravel Tempered wares. 1600-1800 AD.

BPT114 Ham Green (possibly Pill) cookpots. 12th century.

BPT115 Quartz, limestone and shell gritted fabric mostly cookpots. 1070-1100 AD.

BPT118 Bristol/Redcliffe ware. 1240-1350 AD.

BPT118L Bristol/Redcliffe Late ware. 1350-1500 AD.

BPT121 ?South Gloucestershire quartz gritted jug fabric. 1300-1350 AD.

BPT124 Donyatt medieval ware. 14th/early 16th century.

BPT155 Southwest French jugs. Yellow-green glaze, contrast strip decoration outlined with twin grooves. 1280-1320 AD.

BPT156 Southwest French green glazed jugs - quartz free fabric. 1250-1400 AD.

BPT157 Similar to BPT156 but with moderate to common quartz. Perhaps a little earlier in date than BPT156.

BPT179 Scratch blue stoneware. 1720-1780 AD.

BPT182 Tudor Green wares. 1420-1600 AD.

BPT186 White salt-glazed stoneware. 1720-1780 AD.

BPT192 Green glazed jugs - French import. 13th century.

BPT197 Malvern Chase wares. 1400-1700 depending on form.

BPT200 Modern post-1835 English stoneware.

BPT201 Garden furniture. 18th century or later.

BPT202 White china. 18th to 20th century.

BPT203 English porcelain.

BPT211 Bristol/Staffordshire Tiger ware. 18th century.

BPT212 Nottingham stoneware. 18th century.

BPT213 Bristol stoneware. 18th century.

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

BPT239 North French ware. 13th century.

BPT252 Miscellaneous late medieval wares.

BPT264 Late post-medieval redwares mostly local. 18th/19th century.

BPT268 Donyatt post-medieval redwares. Mid 16th century to 1800.

BPT274 Wanstrow pedestal cups. 15th - early 16th century

BPT277 English, mostly Bristol stoneware. Mainly 18th century.

BPT278 Transfer print wares. Post 1780.

BPT280 Nether Stowey post-medieval redwares. 1550-1750.

BPT282 Merida type ware. 13th to 17th century (mostly 1550-1650).

BPT285 Miscellaneous unsourced Somerset medieval redwares. 1550-1800.

BPT286 Frechen stoneware. 1550-1600.

BPT287 Raeren stoneware. 1475-1550.

BPT300 Unsourced Spanish tin-glaze (number not used after 1995).

BPT310 Sugar mould. 1650-1800.

BPT314 Same as BPT211.

BPT315 Southwest French early post-medieval ware. 1550-1650.

BPT318 Hard, fine pale buff fabric containing rare quartz. Green, yellow of brown lead glaze. Beauvais 1500-1550.

BPT319 Hard thick red laminar fabric with internal/external thick black spotty glaze. Source and date unknown

BPT331 Similar to BPT100 but different source.

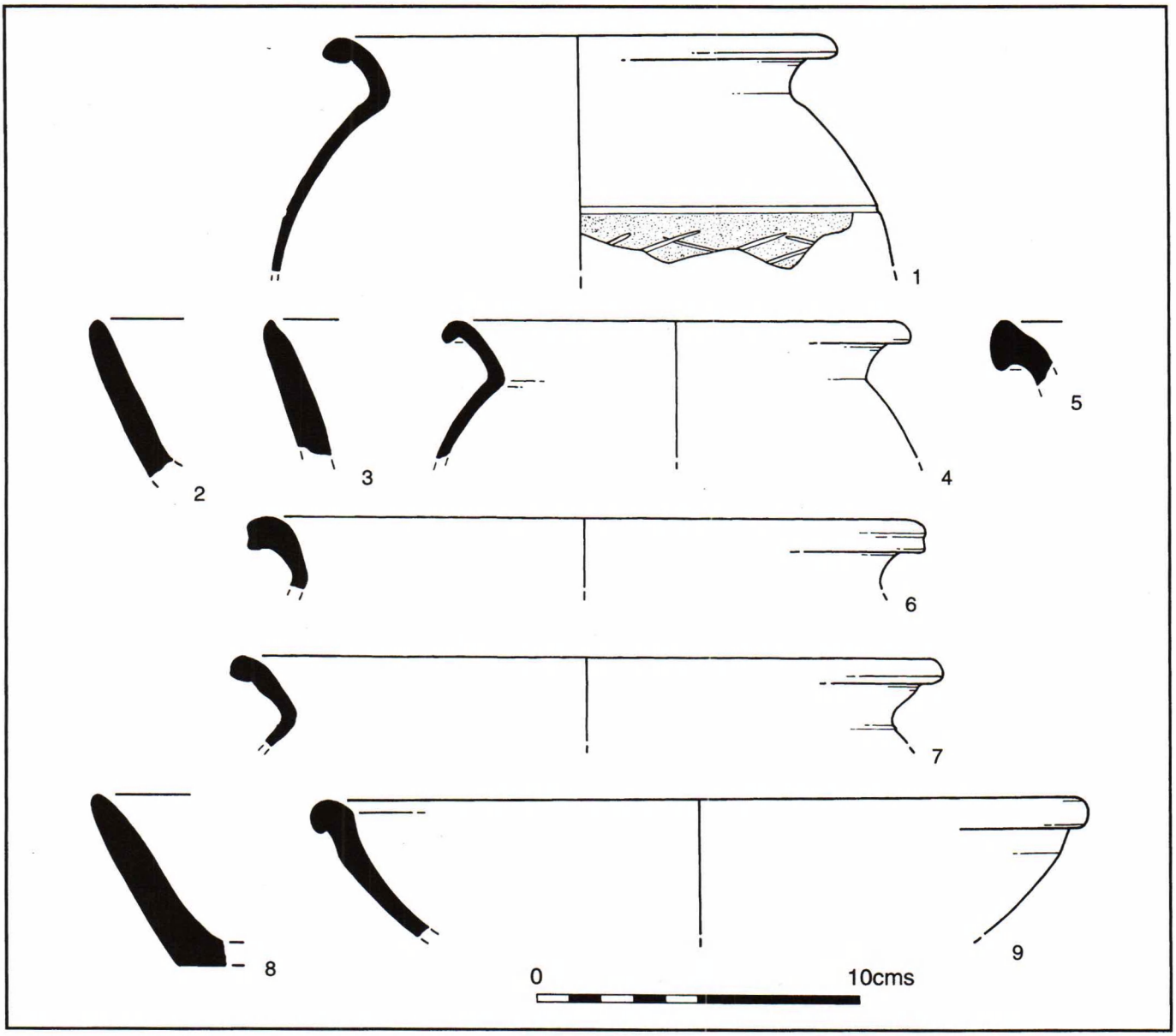


Fig.21 Pottery, Period 2B.

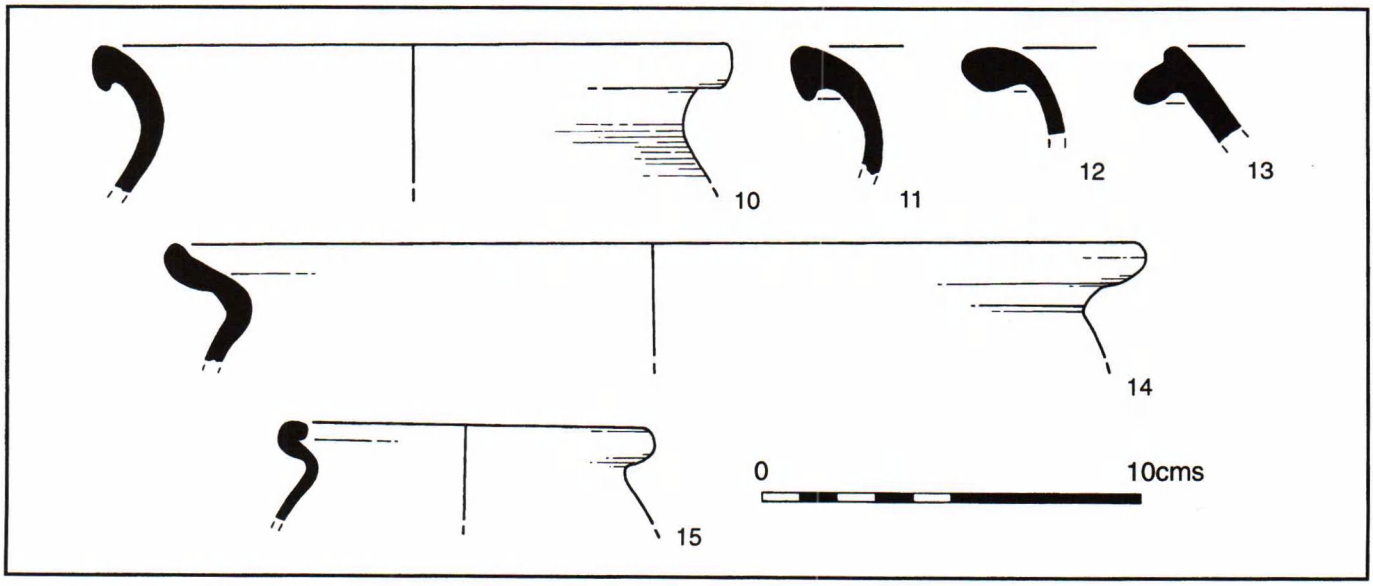


Fig.22 Pottery, Periods 2C & 3B(i).

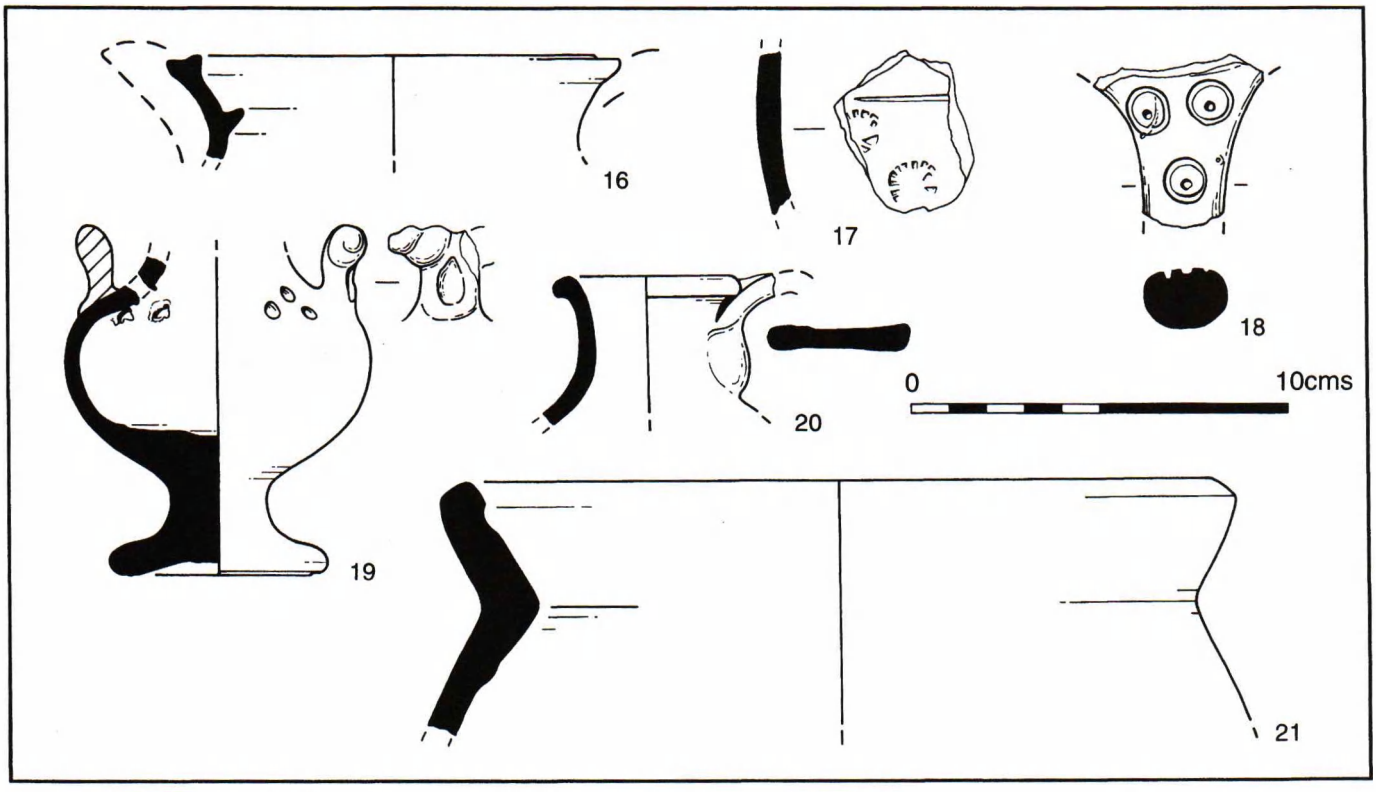


Fig.23 Pottery, Periods 3B(ii) & 4A.

BPT336 Similar to BPT264.
BPT339 Late 18th century Staffordshire wares not included elsewhere.
BPT340 See 52
BPT344 North Netherlands Maiolica. 1550-1600.

CATALOGUE OF ILLUSTRATED POTTERY
(Figs.21-31)

= Residual in this period

Period 2B

1. Everted rim of a cooking pot with obtuse lattice decoration in a band defined by a groove. RFT21. Context RA/73.

2. Straight sided bowl. RFT 36. Context PX/73.

3. Straight sided bowl. The simple rim has an internal chamfer. RFT 21. Context PX/73.

4. Everted rim jar. Buff micaceous fabric. RTF12. Context PX/73.

5. Jar with undercut rim. Shell tempered fabric. RFT45. Context RZ/73.

6. Jar. Rolled back rim with grooved edge. RFT36. Context RZ/73.

7. Everted jar rim. Micaceous grey fabric with dark surfaces. Possibly RFT30. Context SB/73.

8. Straight sided bowl. Probably RFT36. Context DL/76.

9. Wide hemispherical bowl. External bead to rim. RFT 3. Context DH/76.

Period 2C

10. Jar with undercut rim. Shell tempered fabric in the South Midlands tradition. RFT45. Context DJ/76.

11. Everted undercut rim. Shell tempered ware RFT45. Context DP/76.

Period 3B(i)

12. Wide mouth jar. RFT36. Context KW/73 #.

13. Flanged rim bowl. RFT 21. Context OL/73 #.

14. Wide, flat, everted rim of a jar or bowl. RFT36. Context 377 #.

15. Infolded rim of a small jar. Lustrous external olive-green glaze flecked with a darker green. The glaze partly covers the rim. Source uncertain but possibly local. BPT252. Context 377.

Period 3B(ii)

16. Rim with lid seating, possibly a jar form. Typically

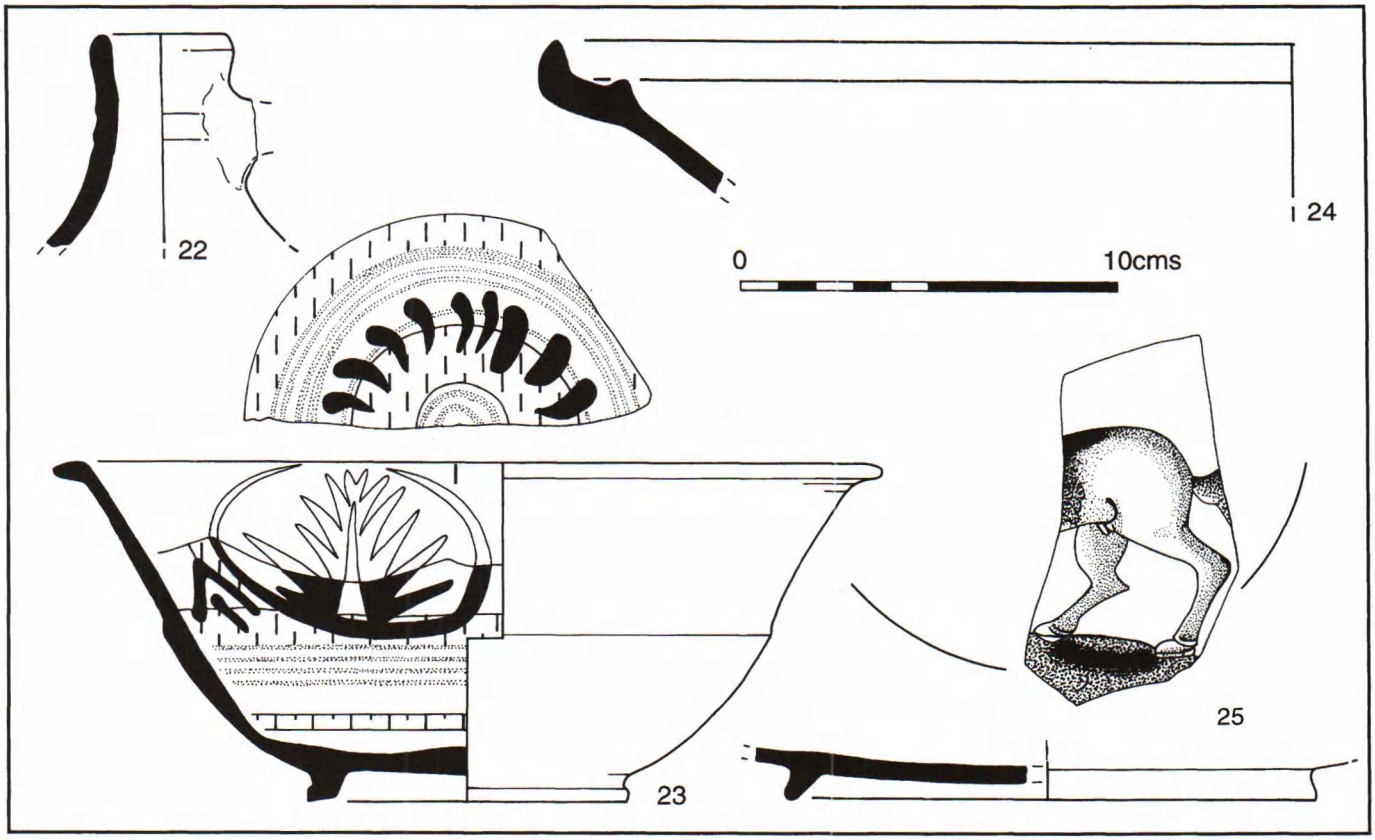


Fig.24 Pottery, Period 4B.

French pitted green glaze. BPT156. Context 351 #.

17. Wheel-stamp decoration. Late Saxon BPT309. Context 393 #.

18. Handle root with patchy green glaze decorated with simple ring and dot motif. Unusual form but probably a Bristol/Redcliffe product BPT118. Context 395 #.

Period 4A

19. Possible incense or perfumery vessel. The globular body is pierced at the shoulder with three groups of three holes. Buff fabric covered with a poor quality, thick white tin-glaze. Possibly Spanish. Context 371.

20. Rim and handle root of a costrel or flask. Metalic green glaze on a fine orange fabric with a white slip under glaze. Source not clear but fabric suggests a Mediterranean origin, possibly Italy. Context 406.

21. Jar with ?lid seat. Internally glazed. BPT112. Context BP/76.

Period 4B

22. Neck of a flask (see Good & Russett 1987, Fig 4.36 for type). BPT96. Context 386.

23. Globular mug. Reeded neck with large medallions to body. Coloured with cobalt and manganese. BPT95. Context AU/76.

24. Rim of a large dish. Traces of glaze and sooting on rim. BPT280. Context AL/76.

25. Base of a tin-glazed earthenware vessel decorated with a painting of a horse in cobalt blue. BPT99. Context BE/76.

Period 4C

26. Chamber-pot. Yellow ground with red-brown contrast decoration (iron rich slip). Probably Staffordshire BPT100. Context 208.

27. Large pancheon. Clear lead (amber) internal glaze. BPT264. Context 68.

28. Large pitcher with green internal glaze. BPT112. Contexts 217 and 232.

29. Large two handled bowl with green internal glaze. BPT112. Context 190.

30. Chamber-pot. The normal dark on light slip technique has been reversed to provide a vessel with a dark ground and light coloured decoration. BPT100. Context 205.

31. Shallow dish. Iron flecked amber (clear lead) glaze on internal surfaces. Glaze dribbles externally. Bristol BPT264. Context 239.

32. Unglazed red-ware dish. Traces of white slip on lip of rim. BPT264. Context 163.

6. Two fragments of window came 70mm and 69mm. (Site 3, SF240/99, Context 303, layer, Period 4B).

7. Window came. Length 75mm. (Site 3, SF232/99, Context 345, layer, Period 4B).

8. Pyramid weight grooved along one side. Base 15mm x 13mm x 40mm high. Weight 55gm. Similar weights are depicted from medieval contexts in Egan 1998 (Fig. 239.1036). (Site 3, SF207/99, Context 259, layer beneath the floor of Pembroke Court, Period 4C).

9. Ovoid weight with central bored hole. Probably used as a plumb-bob. Weight 500gm. (Site 3, SF146/99, Context 256, layer beneath floor of Pembroke Court, Period 4C).

10. Fragments of window came. Compressed but probably of H-section. Length 80mm and 110mm (Site3, SF199/99, Context 321, layer, Period 4C).

11. Window came. Length 95mm. (Site 3, SF100/99, Context 204, layer, Period 4C).

12. Disc stamped with the number '8'. Probably used as a tally. Diameter 28.5mm. (Site 3, SF188/99, Context 256, layer beneath floor of Pembroke Court, Period 4C).

13. Window came. Length 75mm. (Site 3, SF4/99, Context 75, dumped layer, Period 4C).

14. Fragment of strip possibly window came. (Site 3, SF184/99, Context 33, fill of pit 34, Period 4C).

15. Fragments of lead-alloy sheet, possibly parts of a tankard or jug. (Site 3, SF2/99, Context 74, lower fill of water tank 19, Period 4C).

16. Twisted lead strip. Length 55mm. (Site 3, SF62/99, Context 60, fill of pit 61, Period 4C).

17. Decorative object. Trefoil head on an integral tapering, rectangular section mount. Head maximum 40mm x 30mm, mount 70mm x maximum 12mm x 2mm. (Site 3, SF114/99, Context 221, upper fill of pit 220, Period 4C).

18. Fragment of rolled lead sheet. Width 25mm. (Site 3, SF13/99, Context 68, fill of pit 69, Period 4C).
19. Fragment of window came. (Site 3, SF88/99, Context 190, fill of pit 189, Period 4C).

20. Lead-alloy fragments similar to SF2/99 (no. 15) above. (Site 3, SF109/99, Context 208, layer, Period 4C).

21. Seal: both faces stamped - side 1: I+R+I+2+K/1776, side 2: C/?OMA/?OB5/H8?. Diameter 21mm x 5mm thick. (Site 3, SF79/99, Context 159, dumped layer, Period 4C).

22. Fragments of H-section window came. Found with fragments of painted glass SF193/76. (Site 2, SF194/76, Context CX/76, unstratified).

23. Musket ball. Made in a two part mould. Diameter 18mm. (Site 3, SF215/99, Context 5, from surface of layer and unstratified).

24. Fragment of waste. (Site 3, SF161/99, Context 286, unstratified).

25. Fragment of waste. (Site 1, SF46/73, Context HC/73, unstratified).

26. Lead waste. (Site 3, SF228/99, Context 359, unstratified).

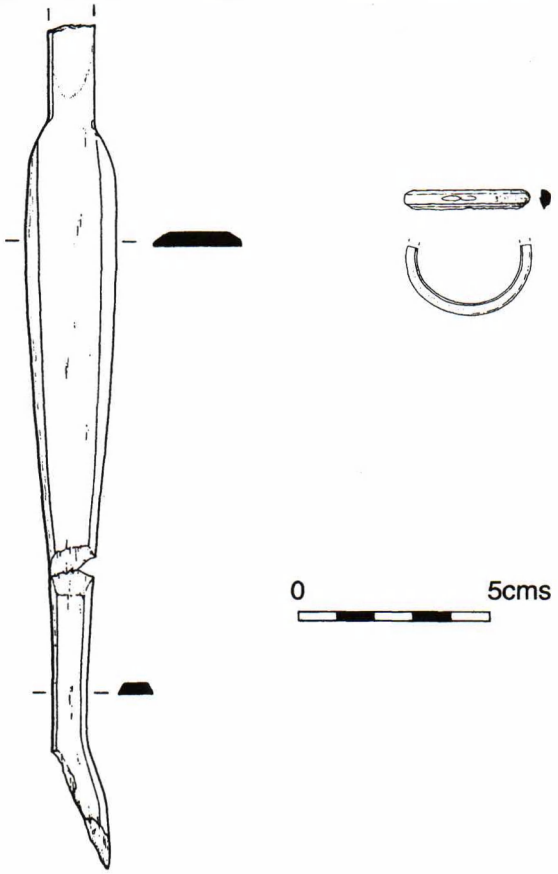
4.10 Objects of Bone

by Rod Burchill

1. Bone fragment with drilled hole. Function uncertain but possibly a toggle or small buzz-bone. (Site 2, SF230/76, Context DP/76, layer, Period 2C).

2. Whittle-tang handle. Round at shoulder becoming elliptical towards terminal. Probably from a table knife or fork. Length 85mm. (Site 3, SF116/99, Context 214, fill of pit 216, Period 4B).

3. Multiple fragments of a fan. (Site 2, SF232/76 & 247/76, Context BL/76, fill of pit 14/76, Period 4C). See below left.



29. Two rectangular shanked round headed nails. Lengths 70mm and 45mm. (Site 1, SF245/73, Context LZ/73, layer, Period 3A).

30. Incomplete small nail. (Site 1, SF73/73, Context MB/73, stone spread, Period 3A).

31. Head of nail. (Site 2, SF207/76, Context DD/76, layer, Period 3A).

32. Nail shank. Length 35mm. (Site 2, SF208/73, Context DD/76, layer, Period 3A).

33. Two nail fragments. (Site 2, SF171/76, Context CK/76, fill of pit 15/76, Period 3A).

34. Fragments of six nails. (Site 1, SF527/73, Context KW/73, layer, Period 3B(i)).

35. Incomplete rectangular section round head nail. Length 50mm, head diameter 17mm. (Site 1, SF411/73, Context QN/73, layer, Period 3B(i)).

36. Incomplete large headed nail with rectangular shank. Head diameter approx. 25mm. (Site 2, SF173/76, Context CC/76, layer, Period 3B(i)).

37. Hafted spike. Rectangular section tapering spike with rounded hollow ferrule above. The ferrule has circular indentations on the side, possibly evidence for rivets. Overall length approx. 90mm. Spike 50mm x 10mm x 6mm. Ferrule tapers from a maximum surviving diameter of 25mm. (Site 1, SF530/73, Context QN/73, layer, Period 3B(i)).

38. Incomplete rectangular section spike. Length 115mm. (Site 2, SF179/76, Context CH/76, layer, Period 3B(i)).

39. Six square section nails of varying lengths. (Site 1, SF406/73, Context OW/73, layer, Period 4A).

40. Nail. Length 50mm. (Site 2, SF160/76, Context AM/76, fill of pit 5/76, Period 4A).

41. Incomplete spike or chisel. Length 120mm. (Site 3, SF239/99, Context 303, layer, Period 4B).

42. L-shaped spike. 55mm/35mm x 15mm tapering. (Site 3, SF249/99, Context 295, surface of garden path, Period 4B).

43. Billhook with socket handle - part of the wooden handle is present. The regional origin of this type is unknown and the use of a socket handle rather than the leaf-tang form has not previously been recorded amongst excavated material from the Bristol area. A function other than hedging might be likely. Length 325mm. (Site 3, SF190/99, Context 256, layer beneath floor of Pembroke Court, Period 4C).

44. Two curved objects, X-radiograph not clear but probably door or cupboard handles. (Site 3, SF4/99, Context 74, lower fill of water tank 19, Period 4C).

45. Deeply dished basket-like object. Possibly an ornamental sword guard. 120mm x 142mm x approx. 70mm deep. (Site 3, SF164/99, Context 54, fill of pit 55, Period 4C).

46. Incomplete whittle-tang knife with shoulder plate and ?bone handle. The blade is very narrow. Overall length 105mm/blade 80mm. (Site 3, SF110/99, Context 222, lower fill of cess pit 220, Period 4C).

47. Wall-hook. Rounded spike 70mm/rectangular section arm 55mm. (Site 3, SF123/99, Context 217, fill of pit 218, Period 4C).

48. Incomplete rectangular headed door stud. Length 120mm/head 60mm. (Site 3, SF124/99, Context 232, lower fill of pit 218, Period 4C).

49. Heavily concreted object possibly part of an hinge. X-radiograph indicates two possible rivet holes. (Site 3, SF27/99, Context 77, fill of pit 78/96/151, Period 4C).

50. Fragment of a ?cookpot. Maximum surviving dimensions 120mm x 100mm. (Site 3, SF29/99, Context 77, fill of pit 78/96/151, Period 4C).

51. Tapering strap probably part of a hinge. Maximum dimensions 170mm x 55mm reducing to 20mm. (Site 3, SF6/99, Context 81, fill of chimney base 80, Period 4D).

52. Fragment of a vessel possibly a cooking pot. (Site 3, SF36/99, Context 94, layer, Period 4D).

53. Fragment of iron sheet. (Site 3, SF35/99, Context 94, layer, Period 4D).

Objects of Lead

by Rod Burchill

1. Fragment of waste. (Site 2, SF181/76, Context CO/76, layer, Period 2C).

2. Fragment of lead sheet 45mm x maximum 25mm. (Site 1, SF46/73, Context MB/73, stone spread, Period 3A).

3. Window came. Length 70mm. (Site 3, SF207/99, Context 371, fill of pit 372, Period 4A).

4. Sub-rectangular section strip, ends bent at right angles. 90mm x 3mm x 3mm. (Site 3, SF206/99, Context 371, fill of pit 372, Period 4A).

5. Fragment of strip. (Site 2, SF21/76, Context BH/76, layer, Period 4B).

Crummy type 6. Length 50mm. (Site 2, SF205/76, Context DC/76, unstratified).

87. Lace chape. Crummy type 1. Length 21mm. (Site 2, SF197/76, Context CX/76, unstratified).

88. Pin fragment. Margeson type 5. (Site 2, SF9/76, Context AE/76, unstratified).

89. Pin. Margeson type 1. Length 31mm. (Site 2, SF128/76, Context DC/76, unstratified).

90. Ornate circular object possibly a button. Floral filigree design with ropework edging. The X-radiograph shows the outer edge to be split or cut suggesting that the object is constructed out of wire or thin sheet. Diameter 24mm. (Site 3, SF192/99, Context 1, unstratified).

Objects of Iron (not illustrated)

by Rod Burchill

The iron assemblage mainly comprised nails, the majority of which were dated to the 18th century or later. Only the nails from contexts dating to before the end of Phase 4A (c.1670) are included here. A full list of later nails can be found in archive.

1. Nail fragments. (Site 1, SF193/73, Context KX/73, layer, Period 2B(i)).

2. Square shanked nail with round head. Length 45mm, shank 3mm square. (Site 1, SF583/73, Context ET/73, fill of pit 28/73, Period 2B(i)).

3. Incomplete nail. Length approx. 40mm. (Site 1, SF14/73, Context FR/73, layer, Period 2B(i)).

4. Four nail fragments. (Site 1, SF229/73, Context QO/73, fill of furnace 1/73, Period 2B(iii)).

5. Fragment of hooked rectangular section bar. Long arm 80mm, short arm 45mm. Similar to a 'joiner's dog'. (Site 1, SF525/73, Context OR/73, layer, Period 2B(i)).

6. Nail fragment. (Site 2, SF127/76, Context BO/76, layer, Period 2B(iii)).

7. Four incomplete nails. (Site 2, SF211/76, Context DJ/76, layer, Period 2C).

8. Nail. Length 53mm. (Site 2, SF184/76, Context CT/76, layer, Period 2B(ii)).

9. Nail with sub-rectangular head. Length 60mm. (Site 2, SF201/76, Context CV/76, layer, Period 2C).

10. Large headed nail or door stud. Completely mineralised. (Site 2, SF198/76, Context CS/76, layer, Period 2C).

11. Rectangular section hook possibly formed from a nail. Length of shank approx. 60mm. (Site 2, SF188/76, Context CS/76, layer, Period 2C).

12. Strip with two incomplete rivets attached. 80mm x 25mm. (Site 2, SF190/76, Context CW/76, layer, Period 2C).

13. Nail. Length 77mm. (Site 2, SF234/76, Context CV/76, layer, Period 2C).

14. Incomplete nail. Length 40mm. (Site 2, SF222/76, Context BU/76, layer, Period 2B(iii)).

15. Nail fragment. (Site 2, SF201/76, Context DF/76, layer, Period 2C).

16. Incomplete disc headed nail. (Site 2, SF172/76, Context BO/76, layer, Period 2B(iii)).

17. Nail. Length 70mm. (Site 2, SF200/76, Context CP/76, layer, Period 2C).

18. Incomplete nail with large square head. Head 20mm square. (Site 2, SF186/76, Context CR/76, layer, Period 2C).

19. Two incomplete nails. Length 40mm and 50mm. (Site 2, Context CR/76, layer, Period 2C).

20. Incomplete nail. (Site 2, SF241/76, Context CT/76, layer, Period 2B(iii)).

21. Incomplete large rectangular section nail. 67mm x 10mm x 7mm. (Site 2, SF237/76, Context CQ/76, layer, Period 2C).

22. Incomplete rectangular section nail. 50mm. (Site 2, SF242/76, Context CT/76, layer, Period 2B(iii)).

23. Incomplete nail, rectangular section shank and large round head. Length 50mm/head, diameter 15mm. (Site 2, SF203/76, Context DA/76, layer, Period 2C).

24. Nail fragment. (Site 2, SF243/76, Context DP/76, layer, Period 2C).

25. Multiple nail fragments. (Site 1, SF523/73, Context OQ/73, layer, Period 3A).

26. Multiple nail fragments. (Site 1, SF167/73, Context OQ/73, layer, Period 3A).

27. Incomplete rectangular head nail. Head 11mm x 9mm. (Site 1, SF163/73, Context OF/73, Period 3A).

28. Incomplete nail. Surviving length 65mm. (Site 1, SF425/73, Context MB/73, stone spread, Period 3A).

Context 154, fill of pit 153, Period 4C).

57. Button. Diameter 26mm. (Site 3, SF1/99, Context 6, layer, Period 4C).

58. Ring. Probably for suspension. Diameter 29mm/22mm. (Site 3, SF63/99, Context 109, fill of pit 108, Period 4C).

59. Wire bent to form an incomplete circle of 39mm diameter. Thickness of wire 1.5mm. (Site 3, SF63/99, Context 60, fill of pit 61, Period 4C).

60. Button with looped back. Diameter 15mm. (Site 3, SF32/99, Context 111, fill of pit 110, Period 4C).

61. Button. (Site 3, SF53/99, Context 95, fill of pit 78/96/151, Period 4C).

62. Sewing pin. Length 21mm. (Site 3, SF48/99, Context 16, layer, Period 4C).

63. Fragment of buckle-frame. (Site 3, SF31/99, Context 29, layer, Period 4C).

64. Fragment of wire shaped to form a 'tie'. (Site 3, SF181/99, Context 39, fill of cultivation trench 40, Period 4C).

65. Door/drawer ring-handle attached to domed mount. (Site 3, SF148/99, Context 269, within fireplace of Pembroke Court, Period 4C).

66. Narrow strip formed into an ellipse with hooked terminals. 42mm x 32mm x 2mm. Function unclear but probably too small for a bangle. (Site 3, SF65/99, Context 165, fill of pit 164, Period 4C).

67. Bell-shaped suspended mount with fretwork body. Possibly had a cabochon cut stone on flat terminal. (Site 3, SF21/99, Context 77, fill of pit 78/96/151, Period 4C).

68. Suspension ring. Probably for harness or clothing. Diameter 26mm. (Site 3, SF105/99, Context 138, layer, 4C).

69. Small domed thimble with machine cut dimples in an 11mm wide band. Base diameter 17mm x height 17mm. (Site 3, SF104/99, Context 208, layer, Period 4C).

70. Bell - no clapper. Probably a servant's bell. Maximum diameter at mouth 74mm, height 40mm.(Site 3, SF145/99, Context 81, fill of chimney base 80, Period 4D).

71. Shaft of a large pin. Length 110mm. Diameter 3.5mm tapering to point. Possibly a hat pin. (Site 3, SF173/99, Context 263, layer, Period 4D).

72. Sewing pin with globular head. Length 29mm. (Site 3, SF24/99, Context 94, layer, Period 4D).

73. Military style button with loop back. Heavily corroded. (Site 3, SF39/99, Context 94, layer, Period 4D).

74. Five sewing pins. Margeson type 5. (Site 3, SF67/99, Context 167, fill of foundation trench 166, Period 4D).

75. Thimble. Even punching above a 3mm wide plain band. 17mm diameter x 20mm high. (Site 3, SF83/99, Context 81, fill of chimney base 80, Period 4D).

76. Round head nail. Length 30mm. (Site 3, SF101/99, Context 167, fill of foundation trench 166, Period 4D).

77. Button - heavily corroded. (Site 3, SF158/99, Context 263, layer, Period 4D).

78. Rectangular section spike. Length 100mm. Shaft 7mm x 7mm tapering. (Site 3, SF85/99, Context 81, fill of chimney base 80, Period 4D).

79. Disc with concave back. No definition on x-radiograph. Diameter 24mm. (Site 3, SF144/99, Context 81, fill of chimney base 80, Period 4D).

80. Coin or disc. No definition on x-radiograph. Diameter 28mm. (Site 3, SF170/99, Context 263, Layer, Period 4D).

81. Spoon with narrow bowl - possibly for sugar or leaf tea. Overall length 13.5mm. (Site 3, SF98/99, Context 167, fill of foundation trench 166, Period 4D).

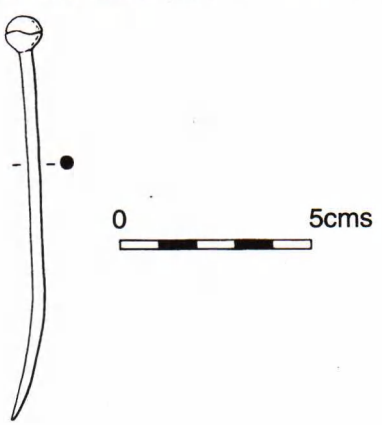
82. Fragment of wire. (Site 3, SF227/99, Context 359, unstratified).

83. Thick wire bent to form a U-shape. Total length 150mm. (Site 3, SF71/99, Context 188, unstratified).

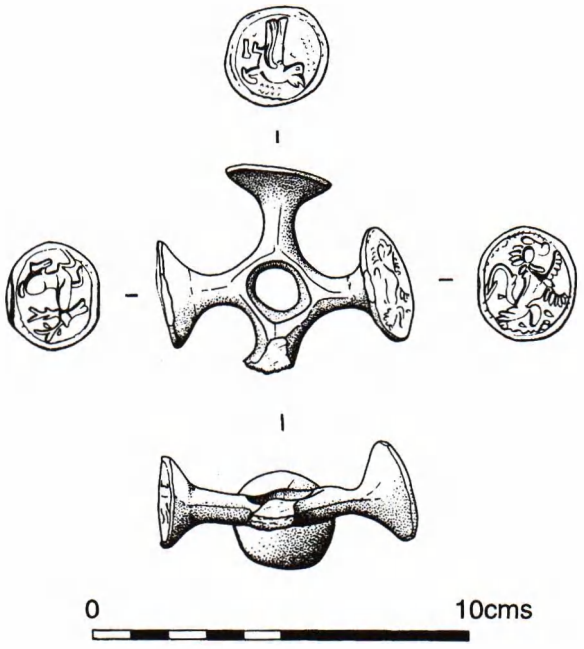
84. Pin fragment. (Site 3, SF252/99, Context 85, unstratified).

85. Fragment of copper-alloy sheet. (Site 2, SF196/76, Context CX/76, unstratified).

86. Large pin with globular head (below). Possibly a

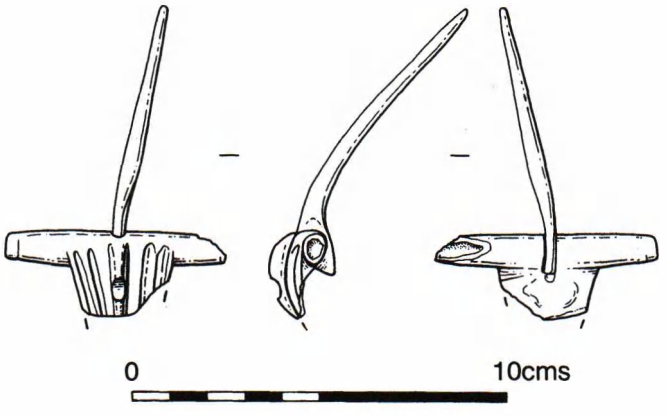


32. Seal. Probably a four seal matrix three of which survive: Lion, Bird, Deer. Lion and Deer matrix are sub-rectangular, the Bird matrix is circular. Each matrix is set on an arm approximately 10mm long set around a central hole. (Site 2, SF165/76, Context AL/76, layer, Period 4C). See below.



33. Large pin. Margeson Type 1. Length 45mm. (Site 2, SF7/76, Context AQ/76, fill of pit 6/76, Period 4C).

34. Pin of Romano-British bow brooch. (Site 2, SF61/76, Context BK/76, general cleaning layer, Period 4C). See below.



35. Pin fragment. (Site 2, SF149/76, Context BL/76, fill of pit 14/76, Period 4C).

36. Pin fragment - shaft only. (Site 2, SF20/76, Context BL/76, fill of pit 14/76, Period 4C).

37. Pin. Margeson type 5. Length 24mm. (Site 2, SF56/76, Context BK/76, general cleaning layer, Period 4C).

38. Pin. Margeson type 5. Length 22mm. (Site 2, SF67/76, Context BL/76, fill of pit 14/76, Period 4C).

39. Pin fragment. Margeson type 5. (Site 2, SF16/76, Context BL/76, fill of pit 14/76, Period 4C).

40. Pin fragment. (Site 2, SF29/76, Context BK/76, general cleaning layer, Period 4C).

41. Pin fragment. (Site 2, SF74/76, Context BL/76, fill of pit 14/76, Period 4C).

42. Pin fragment. (Site 2, SF80/76, Context BL/76, fill of pit 14/76, Period 4C).

43. Plain disc button. Diameter 27mm. (Site 2, SF239/76, Context AL/76, layer, Period 4C).

44. Pin fragments. (Site 2, SF88/76, Context BL/76, fill of pit 14/76, Period 4C).

45. Pin fragment. Margeson type 5. (Site 2, SF123/76, Context BL/76, fill of pit 14/76, Period 4C).

46. Fragment of folded copper-alloy sheet. Maximum dimension 26mm x 30mm. (Site 2, SF46/76, Context BL/76, fill of pit 14/76, Period 4C).

47. Pin fragment. (Site 2, SF103/76, Context BL/76, fill of pit 14/76, Period 4C).

48. Pin with globular head. Length 15mm. Margeson type 5. (Site 2, SF6/76, Context AL/76, layer, Period 4C).

49. Curtain ring. (Site 3, SF179/99, Context 39, fill of cultivation trench 40, Period 4C).

50. Disc, possibly part of a button. Diameter 25mm. (Site 3, SF18/99, Context 77, fill of pit 78/96/151, Period 4C).

51. Small ring. D-shaped profile. Diameter 12mm/10mm. (Site 3, SF150/99, Context 75, dump layer, Period 4C).

52. Two fragments of thick wire probably used as ties. (Site 3, SF89/99, Context 190, fill of pit 189/207, Period 4C).

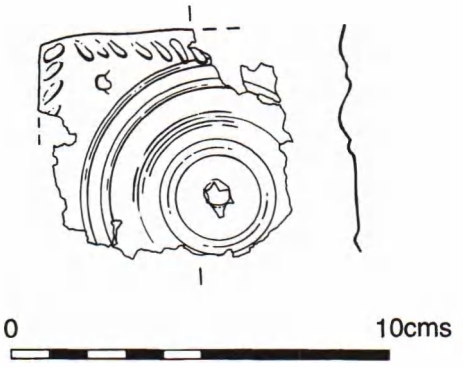
53. Pin fragment. Margeson type 5. (Site 2, SF94/76, Context BK/76, general cleaning layer, Period 4C).

54. Curtain ring. Diameter 19mm/16mm. (Site 3, SF186/99, Context 25, fill of cultivation trench 26, Period 4C).

55. Round head Jews Harp. Diamond section arms. Diameter of loop 21.5mm, length of arms 29mm. (See Egan 1998, 217. SUN86 1609). (Site 3, SF57/99, Context 163, fill of pit 162, Period 4C).

56. Pin. Crummy type 2. Length 25mm. (Site 3, SF139/99,

part of a belt-plate (see Crummy 1983, 4210/4211). (Site 2, SF216/76, Context DL/76, layer, Period 2B(iii)). See below.



5. Fragment of thin sheet. (Site 2, SF154/76, Context BG/76, structure of wall 9/76, Period 2B(iii)).

6. Fragment of copper-alloy sheet. (Site 2, SF199/76, Context CV/76, layer, Period 2C).

7. Six fragments of copper-alloy sheet. Possibly fragments of a belt-plate. (Site 2, SF214/76, Context DK/76, layer, Period 2C).

8. Fragment of copper alloy - no clear form. (Site 1, SF96/73, Context JW/73, layer, Period 3A).

9. Fragment of copper-alloy strip. (Site 1, SF72/73, Context MB/73, stone spread, Period 3A).

10. Tweezers. The upper part of the blades are twisted together, below the twist the blades are flared. Length 56mm. Similar tweezers were recorded from a late medieval context at Colchester (Crummy 1988, 29.1882). (Site 1, SF101/73, Context OQ/73, layer, Period 3A).

11. Lace chape. Crummy type 1 (Crummy 1988, 1325/1426). Length 18mm. (Site 1, SF11/73, Context EX/73, general cleaning layer, Period 3A).

12. Fragment of thin sheet with numerous small holes. Function uncertain. Length 60mm x 50mm (unfolded). (Site 2, SF135/76, Context CC/76, layer, Period 3B(i)).

13. Copper alloy bar. Possibly a buckle tongue. Length 32mm. (Site 3, SF213/99, Context 339, fill of pit 338/394, Period 3B(i)).

14. Fragment of wire, one end bent back to form a hook. Length 32mm. (Site 3, SF214/99, Context 339, fill of pit 338/394, Period 3B(i)).

15. Fragment of twisted wire with loop terminal. Length 14mm. (Site 3, SF208/99, Context 351, cultivation soil, Period 3B(ii)).

16. Incomplete fine pin with wire wound globular head. Length 15mm. (Site 3, SF210/99, Context 351, cultivation soil, Period 3B(ii)).

17. Strip fragment. Length 24mm. (Site 3, SF211/99, Context 351, cultivation soil, Period 3B(ii)).

18. Fragments of very fine sewing pins. Probably Crummy type 2. (Site 3, SF246/99, Context 351, cultivation soil, Period 3B(ii)).

19. Copper-alloy object of unknown function. Rectangular section with enlarged terminal - slight curve to shaft. Length 54mm. (Site 3, SF238/99, Context 410, layer, Period 4A).

20. Crenellated decoration notched between and hole at one end to allow object to swivel. Diameter approx. 45mm x 3mm x 1mm. (Site 1, SF112/73, Context OW/73, layer, Period 4A).

21. Fine wire pin. Margeson type 1 (Margeson 1993). Length 21mm. (Site 2, SF130/76, Context CD/76, fill of pit 17/76, Period 4A).

22. Pin. Crummy type 2. Length 58mm, head diameter c.5.5mm. (Site 3, SF201/99, Context 371, fill of pit 372, Period 4A).

23. Three pins. Margeson Type 5. Length 22mm. (Site 2, SF58/76, Context BP/76, fill of pit 12/76, Period 4A).

24. Pin. Margeson type 5. Length 15mm. (Site 2, SF41/76, Context BP/76, fill of pit 12/76, Period 4A).

25. Pin. Margeson type 5. Length 25mm. (Site 2, SF26/76, Context BB/76, fill of pit 12/76, Period 4A).

25. Pin fragment. (Site 2, SF55/76, Context BP/76, fill of pit 12/76, Period 4A).

26. Three pin fragments. (Site 2, SFs 81/76,115/76, 121/76, Context AK/76, cultivation soil, Period 4B).

27. Pin. Margeson type 5. (Site 2, SF1/76, Context AK/76, cultivation soil, Period 4B).

28. Fine pin. Margeson type 5. Length 19mm. (Site 2, SF86/76, Context BQ/76, cultivation soil, Period 4B).

29. Pin. Margeson type 5. Length 28mm. (Site 2, SF25/76, Context BE/76, cultivation soil, Period 4B).

30. Suspension ring. Diameter 25mm/21mm. (Site 2, SF12/76, Context BH/76, cultivation soil, Period 4B).

31. Upholstery pin. (Site 3, SF229/99, Context 355, layer, Period 4B).

(Site 3, Context 269, SF149/99, within fireplace, Period 4C).

7. Clay marble. Diameter approx. 16mm. (Site 3, Context 75, SF162/99, dumped layer, Period 4C).

The Coins and Tokens

by Rosie Clarke

A total of 20 items are described below, none of which are illustrated.

Roman

1. Constantine I (AD 307-337). AE3/4, dia. 16mm. Obv: illegible diad. and dr. bust r. Rev: GLORIA EXERCITVS, two soldiers stg. either side of one standard. (Site 2, SF212/76, Context DK/76, layer, Period 2C).

2. Constantine I (307-337). AE Denarius, as Caesar 306-307. Obv: FL VAL CONSTANTINVS N C, laur. and cuir., bust r. Rev: MARTI PATRI PROPVG. VOT X in laurel wreath. (Site 2, SF213/76, Context DK/76, layer, Period 2C).

3. Constantius II (337-361). AE Centionalis from the post-reform coinage 346-361. Obv: DN CONSTANTIVS PP AVG, diad. dr. and cuir., bust r. Rev: FEL TEMP REPARATIO, Constantius stg. l. on galley, holding Victory and labarum, in ex. TRS. (Site 2, SF215/76, Context DN/76, layer, Period 2C).

4. Illegible Roman coin, probably a 4th-century Gloria Exercitus type (as SF 212/76 above). (Site 1, SF111/73, Context QN/73, layer, Period 3B(i)).

Medieval

5. AR Short Cross penny, illegible (1180-1247). (Site 3, SF159/99, Context 161, clearance layer, Period 4C).

6. AR cut Short Cross halfpenny, illegible (1180-1247). (Site 3, SF200/99, Context 200, agricultural soil, Period 3B(ii)).

7. AR Edward I halfpenny of the London mint. Obv: has been overstruck with a reverse die so is consequently illegible. (Site 3, SF93/99, Context 124, layer, Period 4A).

Post-medieval

8. Pewter Elizabethan ecclesiastical token (1558-1603). Dia. 17mm. Obv: illegible. Rev: cross, in quarters dot in triangle x 4. Stylistically similar to Mitchiner & Skinner (1984) pl.12, 6. (Site 3, SF80/99, Context 161, clearance layer, Period 4C).

9. Pewter Elizabethan token. Obv: Field quartered by triple cross, nothing in angles. Rev: illegible. Similar to Mitchiner & Skinner (1984) pl.14, 87). (Site 3, SF176/99, Context 303, layer, Period 4B).

10. AE coin or token, illegible, dia. 22mm. Possibly Charles I sixpence, York (1638-1649). (Site 3, SF143/99, Context 81, fill of chimney base, Period 4D).

11. AE counter-stamped Spanish 8 maravedis. Obv: 8 countermark (1651). (Site 3, SF56/99, Context 75, dump layer, Period 4C).

12. Bristol farthing (1662). (Site 3, SF197/99, Context 340, layer, Period 4A).

13. AE illegible. ?George III halfpenny (1760-1820). (Site 3, SF154/99, Context 280, dump layer, Period 4D).

14. AR sixpence, George IV shield in garter type (1824-1825). (Site 3, SF16/99, Context 77, fill of foundation trench for wall 79, Period 4C).

15. AE Victorian farthing, illegible (1837-1901). (Site 3, SF20/99, Context 85, unstratified).

Unidentifiable

16. AE coin or token, illegible. (Site 3, SF75/99, Context 126, fill of linear feature, Period 4C).

17. AE coin or token, illegible. Dia. 22mm. (Site 3, SF167/99, Context 277, layer, Period 4B).

18. AR coin or token, illegible. Dia. 15mm. (Site 3, SF202/99, Context 351, agricultural soil, Period 3B(ii)).

19. AR coin or token, illegible. Dia. 14mm. (Site 3, SF203/99, Context 351, agricultural soil, Period 3B(ii)).

20. AE coin or token, illegible. Dia. 15mm. (Site 3, SF209/99, Context 351, agricultural soil, Period 3B(ii)).

Objects of Copper Alloy

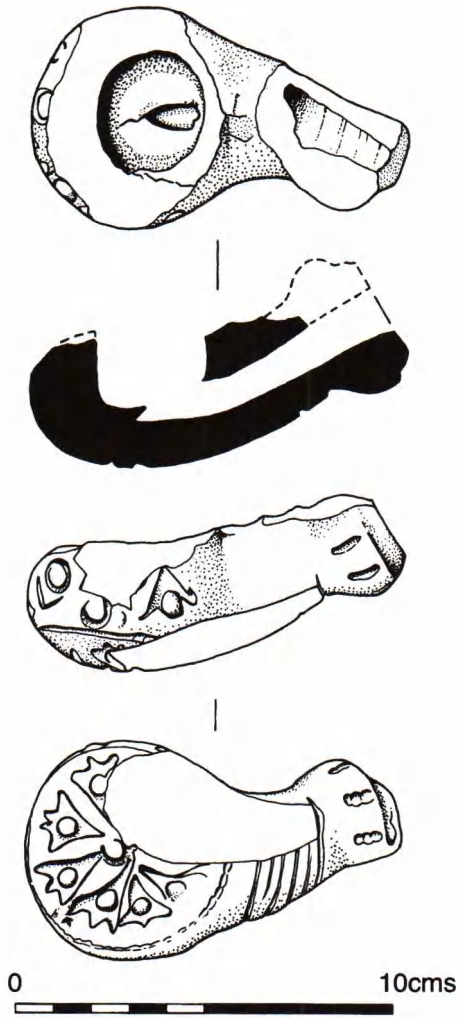
by Rod Burchill

1. Fragment of a bow-brooch. Copper-alloy coated with tin (XRF analysis AM Labs 1985). (Site 1, SF306/73, Context ET/73, fill of pit 28/73, Period 2B(ii)).

2. Ring, probably functional. Flattened oval in section. Diameter 27mm/21mm. Similar rings were recorded at Aldborough (Bishop 1996, Fig. 26.278/283) and Caerleon (Evans & Metcalf 1992). (Site 1, SF92/73, Context NW/73, general clearance layer, Period 2).

3. Thin copper-alloy strip with rivet hole at one end. Possibly part of a mount. (Site 2, SF204/76, layer, Period 2C).

4. Incomplete mount. Central boss with rivet hole. Cord and reed decoration with ropework along edge. ?Second rivet hole in corner. Approximately 30mm square. Possibly



'Ottoman' pipe

failed to reveal the identity of the manufacturer of this pipe.

Some early to mid 17th-century style pipe bowls bearing the initials 'CA' incuse on the heel (three examples) or the initials 'CB' in relief on the heel (one example Site 1, context HC/73) cannot be identified with any known Bristol pipemaker, although the bowl forms appear to be of a local type. Those with the initials 'CA' are known from other sites in the city (Jackson & Price 1974, 8, no. 1). Although the Bristol documentary sources have been very thoroughly examined for references to pipemakers and the results published, it is just possible that some early 17th-century pipemakers are still unknown to us.

Some pipes have decorative motifs instead of makers' initials or names. Three early to mid 17th-century bowls have a hand or 'gauntlet' mark incuse on the heel (Site 1, context EK/73; Site 3, context 281; Site 3, context 335) while one early 17th-century bowl has a seven-spoked wheel mark stamped in relief on the heel (Site 1, context EO/73). The identity of the makers of these pipes is unknown. While pipes bearing the 'gauntlet' mark are particularly common in Wiltshire and were obviously made there, the Mould Size Agreement of the Bristol pipemakers, written in 1710, refers to a type of pipe they were making as 'Gauntletts' (Jackson & Price 1974, 85).

One pipe bowl with pointed spur is unusual in that it is decorated on the back, across the mould line, with a royal coat of arms in relief inside a circle. The coat of arms is supported on the right side of the bowl by a unicorn and on the left by a lion, both rampant, their hind feet resting on the royal motto. The bowl is of poor quality and the coat of arms is unidentifiable, though it is usually Hanoverian. This type of pipe is known from elsewhere in the south of England, notably London, and they range in date from the mid 18th to the mid 19th centuries (Atkinson & Oswald 1980). This example is probably late 18th century based on the bowl form (Site 3, context 232). One other bowl with pointed spur is decorated with the Prince of Wales' feathers in relief on each side of the bowl, with oak leaves up the front and rear mould lines (Site 3, context 81). This again dates to the late 18th century.

Two bowls appear to have had the maker's mark deliberately erased from the pipe mould. One early 18th-century bowl has on its right side a heart in relief. Inside the heart is a raised square area where the name or the initials of the pipemaker should appear, showing clearly that the mark had been cut out of the mould. Another bowl of similar date bore the initials of the pipemaker Henry Hoar incuse on the back of the bowl and a circle in relief on the side of the bowl. The circle was empty of a maker's mark again suggesting that it had been removed from the mould. These are probably examples of a pipe maker inheriting or buying another maker's moulds and removing the existing marks.

The products of the Bristol pipemakers represented in the clay pipe assemblage are shown in Table 9. The information on the working dates of the pipemakers is taken from Jackson and Price (1974) and Price and Jackson (1979).

Objects of Fired Clay

by Rod Burchill

1. Pottery counter formed from a sub-rounded sherd of Romano-British Congresbury ware. Diameter approx. 20mm. (Site 1, SF91/73, Context NX/73, fill of drain 7/73, Period 3B).

2. Clay marble. (Site 2, Context BL/76, SF126/76, fill of pit 14/73, Period 4C).

3. Fragment of fired and glazed clay. Possibly an applied decoration from a pottery vessel. (Site 3, Context 66, SF15/99, fill of pit 67, Period 4C).

4. Ceramic wig-curler. Bulbous terminals with flat end-faces. No markings. Length 66.5mm x max. diameter 13.5mm (see Crummy 1988, 26 fig.28). (Site 3, Context 75, SF19/99, dumped layer, Period 4C).

5. Kiln separator - tripod type. (Site 3, Context 75, SF166/99, dumped layer, Period 4C).

6. Two clay marbles. Diameter approx. 13mm and 15mm.

Pipemaker's Name	Working Dates	Mark,Description and Number of Examples in Assemblage in Brackets
James Abbott	Free 1677, dead by 1718	Three line mark 'I/ABBO/TT' in relief in circle on side of bowl (2)
John Arthurs	Free 1707, died 1721	Initials 'IA' with decoration above and below all in relief in circle on side of bowl (2) Three line mark 'I/ARTH/ORS' in relief in circle on side of bowl (1)
Isaac Battin	Free 1748, died 1759	Initials 'IB' in relief in circle on side of bowl (1) Initials 'IB' with decoration above and below all in relief on side of bowl (1)
Richard Berryman	*c.*1619, to at least 1652	Initials 'RB' incuse on heel separated by dagger and heart (3)
William Carter or William Cooper	*c.*1641, dead by 1647 *c.*1641 to 1642	Initials 'WC' incuse on heel (1)
Nathaniel Chilton	Free 1703, died 1730	Initials 'NC' inverted incuse on back of bowl (1)
William Cissell	Free 1661, to at least 1670	Initials 'WC' with decoration above and below in circle incuse on heel (1)
George Ebbery	Free 1721, died 1786	Initials 'GE' in relief in circle on side of bowl (3) Initials 'GE' with decoration above and below in relief in circle on side of bowl (1)
Henry Edwards	Free 1699, to ?1739	Three line mark 'H/EDWA/RDS' in relief in circle on side of bowl (2) 'H/EDWARDS' around edge of circle, a hand in centre of circle, all in relief on side of bowl (1)
Philip Edwards I or Philip Edwards II	Free 1650, died 1683 Free 1681, to ?1703	Initials 'PE' incuse on heel (7)
James Fox	*c.*1651, probably died 1682	Initials 'IF' incuse on heel (2)
Robert Hancock	Free 1655, to at least 1693	Initials 'RH' incuse on heel (1)
John Harvey I or II	I free 1706 and I or II to at least 1746	Three line mark 'I/HAR/VEY' in relief in circle on side of bowl (1)
Thomas Harvey	Free 1700, dead by 1734	Three line mark 'T/HAR/VEY' in relief in circle on side of bowl (2)
Henry Hoar	Free 1699, died 1728	Initials 'HH' incuse on back of bowl (7) Initials 'HH' incuse oon back of bowl. Circular relief mark on side of bowl although any initials within the mark appear to have been deliberately removed (1)
Flower Hunt	Free 1651, died 1672	Initials 'FH' in dotted circle incuse on heel (1)
John Hunt I	Free 1651, to at least 1653	Initials 'IH' in circle of dots incuse on heel (1)
James Jenkins	Free 1707, to at least 1739	Initials 'II' in relief in circle on side of bowl (7)
Devereux Jones I Devereux Jones II	Free 1691, died 1713 Fee 1727, dead by 1748	Two line mark 'D/IONES' with a dot either side of the letter D and decoration below all in relief in circle on side of bowl (4)
Edward Lewis I	Free 1631, dead by 1652	Initials 'EL' with decoration above and below all incuse in circle on heel (1)
Thomas Lewis I - IV	I free 1685, IV dead by 1768	Three line mark 'T/LEW/IS' in relief in circle on side of bowl (1)
Richard Nunney	Free 1655, dead by 1713	Initials 'RN' incuse on heel (2) Initials 'RN' with decoration above and below all incuse in circle on heel (5)
Jacob Prosser	Free 1663, to at least 1686	Initials 'IP' incuse on heel (1)
Francis Russell I	Free 1669, dead by 1714	Initials 'FR' with decoration above and below all incuse in circle on heel (2)
John Sinderling	Free 1668, dead by 1699	Initials 'IS' incuse on back of bowl (1)
Robert Tippet I	Free 1660, dead by 1687	Initials 'RT' incuse on heel (3)
Robert Tippet I or Robert Tippet II or Robert Tippet III	Free 1660, dead by 1687 Free 1678, died 1722 Free 1713, dead by 1716	Initials 'RT' incuse on back of bowl (2) Three line mark 'R/TIPP/ET' in relief in circle on side of bowl (2) Initials 'RT' incuse on heel and three line mark 'R/TIPP/ET' in relief in circle on side of bowl (1)
James Walker or John Wickham or Josias Wickham or	Free 1733, to at least 1754 Free 1723, died 1754 Free 1739, to at least 1754	Initials 'IW' in relief in circle on side of bowl (3)
John Wilson	Free 1707, to at least 1723	Three line mark 'I/WIL/SON' in relief in circle on left side of bowl (2)
William Williams I	Free 1651, to at least 1674	Initials 'WW' incuse on heel (2)

Table 9 The occurrence of marked clay tobacco pipes and the identity of their makers.

Period	3A	3B	4C	4B	4C	4D
Type						
BRF1		1		4		
BRF2				1		
BRF4				1	1	
BRF7		3	1	3		
BRF8				1	1	
BRF9	2	4		1		
BRF10		1	1	7	6	
BRF11				1		
BRF13				24	86	16
BRF14		1	1	6		
BRF17		2		2		
Total	2	12	3	51	94	16

Table 8 Distribution of ceramic rooftile by period.

large lumps of unhomgenised clay (4-6mm). Green or yellow green-glaze. Knife cut crests, stab or wavy comb decoration. Bristol, 14th century.

BRF2 Grey fabric similar to BRF1 with the addition of common lumps of mudstone. Green glaze. Knife cut crests sometimes with stabbed decoration. Bristol, 14th century.

BRF4 Grey fabric containing abundant white quartz. Thin section analysis (D.Williams forthcoming) has shown this fabric to be petrologically identical to BRF2. Green glaze. Low profile crests. Bristol, 14th century.

BRF7 Malvern fabric (Vince 1977). 15th/16th century.

BRF8 North-west Wiltshire (Minety) fabric. 14th/15th century.

BRF9 Macroscopically similar to BRF2. Thin section analysis (D.Williams forthcoming) has shown that BRF9 is noticeably different as it contains no limestone. BRF9 is similar to pottery type BPT118. Tall knife cut crests with thumbed applied strips. Bristol, 13th/14th century.

BRF10 Chaotic, poorly mixed, orange fabric with fine mica, iron ores and rare clay pellets. Purple-brown glaze. Unsourced ?16th/17th century.

BRF11 North Devon Gravel Tempered rooftile. 17th century.

BRF13 Pantile.

BRF14 A category for miscellaneous types.

BRF17 Tile and louvre in Bristol/Redcliffe pottery fabric.

BPT118. Late 13th/14th century.

The Clay Tobacco Pipes

by Reg Jackson

The post-medieval contexts produced a large number of clay pipe stem fragments and pipe bowls dating from the 17th to the 19th centuries.

Those pipes which bore the names or initials of pipemakers were, with only a few exceptions, all made by known Bristol manufacturers, while the unmarked bowls were typical in form to those known to have been made in Bristol. As Bristol was a major pipe manufacturing centre and the heart of the industry in the 17th and 18th centuries was located in Lewins Mead just to the south of the Upper Maudlin Street sites, there would have been no need for the inhabitants to have imported pipes from elsewhere.

Two pipes are clearly of foreign manufacture and were almost certainly brought back on board ship as personal items by members of a ship's company rather than as cargo.

One is part of a rare, so-called 'Ottoman' pipe (see over), probably made in Turkey or another eastern Mediterranean country (Hayes 1980, 5; Wood 1990, 9). It has a fine red clay fabric and a short stub stem into which a wooden or reed stem could be inserted. Only the lower part of the bowl survives and that is decorated with abstract designs (see below, p95). The pipe was found in context 346 on Site 3 and was accompanied by two Bristol made bowls dating to the mid 17th century. The context lies below one of the path surfaces of the Period 4B formal garden and the 'Ottoman' bowl therefore clearly pre-dates c.1670.

The second foreign pipe is of Dutch manufacture. It bears a mark in relief on the flattened point of the spur consisting of the initials 'AV' below a crown. This came from Site 1, context GB/73, the fill of a pit lying outside the general area of the excavation. It was associated with Bristol made pipes of the early 18th century, including those of Henry Hoar who was working from 1699 to 1728. An examination of the main published sources on Dutch pipes (e.g. Duco 1982 & 1987; Krommenhoek & Vrij 1986) has

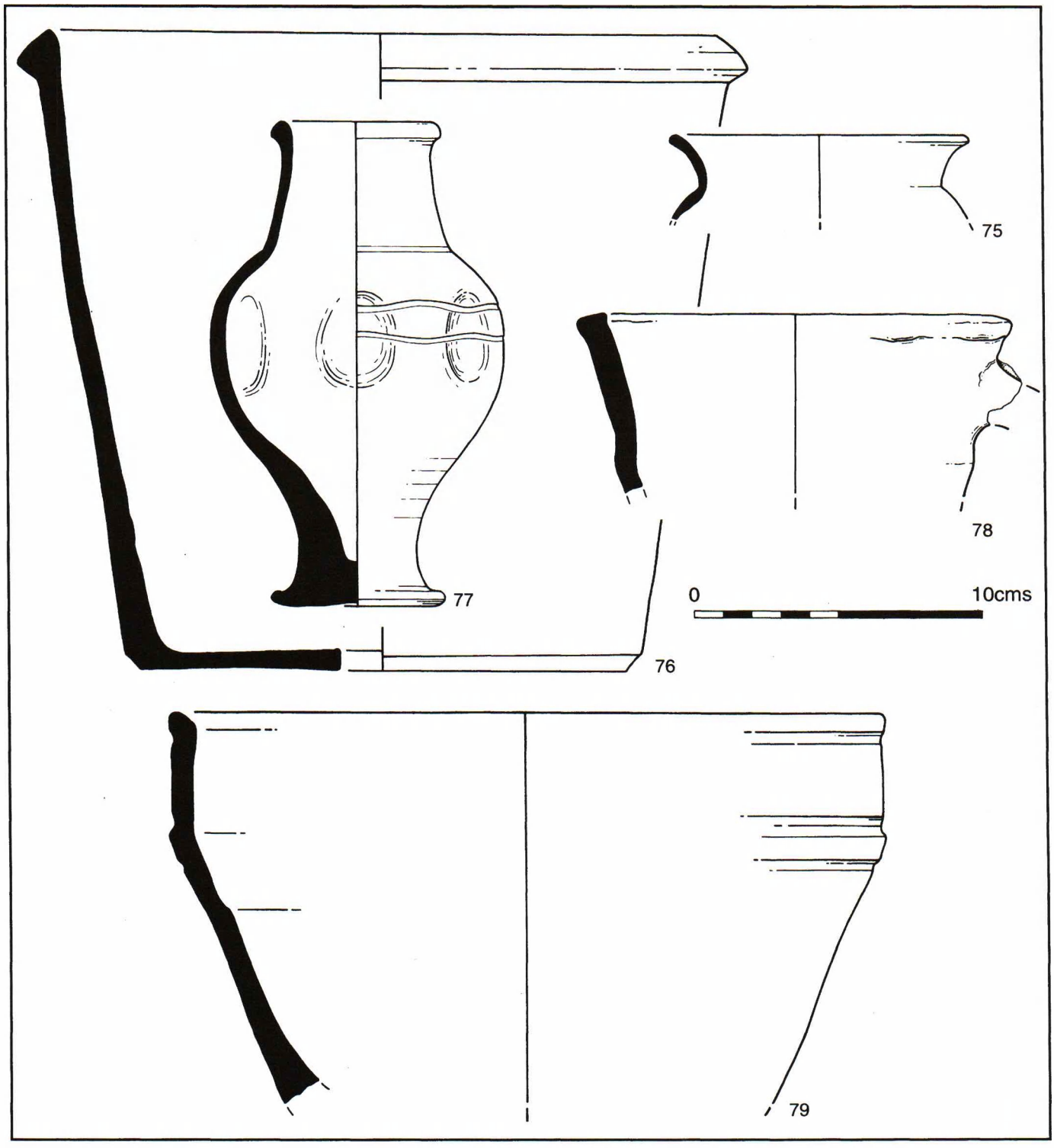


Fig.31 Unstratified pottery.

assemblage). The assemblage also included two sherds in a north-west Wiltshire lime gritted fabric (BRF8) and a single sherd of North Devon Gravel Tempered tile BRF11.

Only a small amount of tile was found in Periods 3A, 3B and 4A, most of the tile other than pantile being found in Period 4B perhaps suggesting the clearance of tiled buildings to create the formal gardens of this period. Periods 4C and 4D comprised mostly pantile (93% of the tile in these two phases), the remaining Periods 4C/4D tile being residual. The distribution of ceramic rooftile by period is shown in Table 8.

ROOFTILE TYPES PRESENT
(BRF = Bristol Rooftile Fabric Type Series)

BRF1 Tiles in a grey/buff fabric containing common

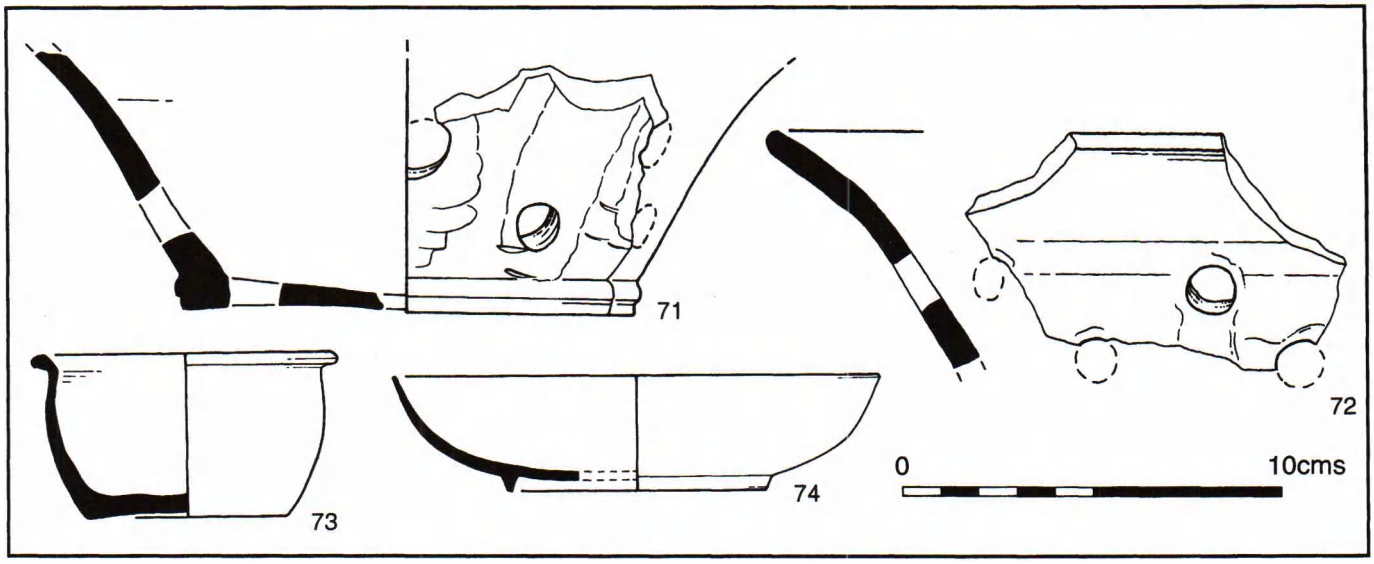


Fig.30 Pottery, Period 4D.

68. Two handled bowl, the handles are scallop-shell shaped. All-over tinglaze. BPT99. Context BL/76.

69. Dish decorated in blue with a floral pattern. BPT99. Context BL/76.

70. Bowl. BPT99. Context BS/76.

Period 4D

71. Vessel of unknown function, possibly a bulb planter or strainer. BPT264. Context 280.

72. Same as 38 above. BPT264. Context 280.

73. Bowl. Iron flecked amber (clear lead) internal glaze. BPT264. Context 263.

74. Shallow dish with foot ring. Bristol BPT186. Context 263.

Unstratified

75. Everted rim jar. RFT36. Context KF/73.

76. Large straight sided vessel in unglazed red earthenware. Probably for garden use. BPT201. Context CX/76.

77. Greyware dimpled beaker. Probably RFT36. Context CX/CY/76.

78. Rim and handle root of a tripod pitcher. Poor olive green glaze. BPT18c. Context 384.

79. Large bowl. Green stained mustard yellow glaze internally and over outside of rim. Iron wash over unglazed areas. BPT280.

The Ceramic Rooftile

by Rod Burchill

The ceramic rooftile recovered from excavated contexts was quantified by sherd count and weight. The material was visually examined and identified by comparison to the Bristol Rooftile Fabric series (BRF). The type series originally published by Williams and Ponsford in 1988 has recently been enlarged (Burchill forthcoming a and b). A list of the types recovered during the present excavation is included with this report.

When reading this report it should be noted that it was not clear if the collection policy was consistent across the three sites.

The rooftile assemblage consisted of 178 sherds weighing 22,735gms of which 126 sherds (70.7%) were pantile. Of the remainder, locally made Bristol/Redcliffe tile accounted for 10.6% of the assemblage. There was no Romano-British tile amongst the excavated material.

The Bristol/Redcliffe tile industry was represented by five fabrics - BRF1, BRF2, BRF4, BRF17 and BRF9. This last (BRF9) was thought to be a variant of BRF2 (Ponsford pers.comm.). However, recent thin section analysis (D.Williams forthcoming) has shown they are not related, BRF9 lacking the fragments of cryptocrystalline limestone found in BRF2. The same study showed that BRF4, which Ponsford had considered similar to the Bristol/Redcliffe fabrics but possibly from a different source (Ponsford 1998), is the same as BRF2. Tiles identified as BRF17 are in a fabric identical to the pottery fabric BPT118. All can be dated to the 13th and 14th centuries

The minor fabrics in the assemblage included Malvernian tiles (BRF7), common in Bristol during the 15th and 16th centuries, which represented some 3.9% of the assemblage. Probably of similar date to the Malvernian tiles were sherds in an unsourced fabric BRF10 (8.4% of the

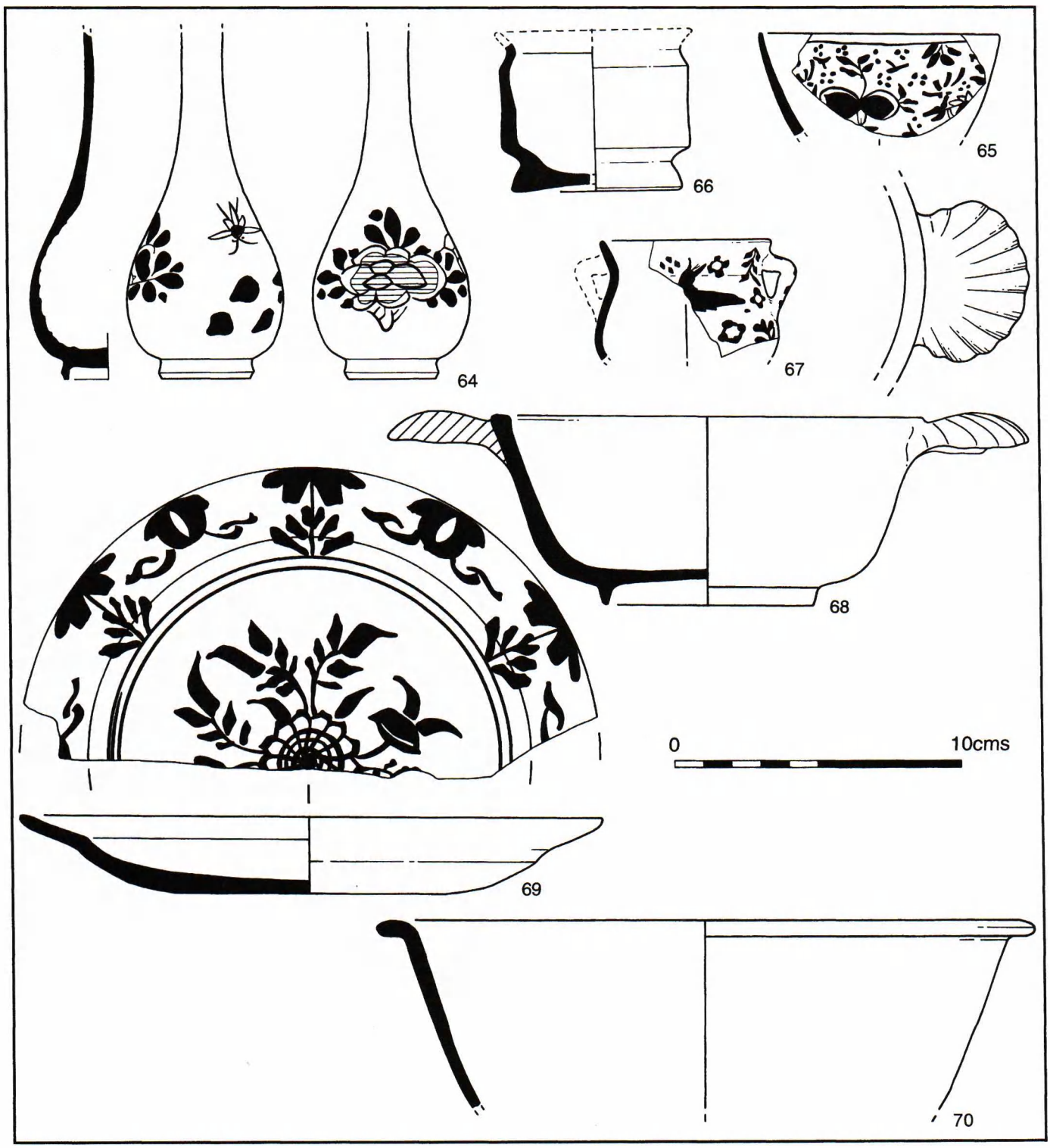


Fig.29 Pottery, Period 4C.

62. Plate with bead on upper rim. All-over pale blue tin glaze. BPT99. Context BL/76.

63. Deep dish. All-over white tin glaze. BPT99. Context BL/76.

64. 'Bottle' or vase. Decorated with light and dark blue flora pattern. BPT203. Context BL/76.

65. Bowl with blue floral decoration. BPT99. Context BL/76.

66. Unguent jar. BPT99. Context BL/76.

67. Small two handled jar. Decorated with a floral pattern in blue. BPT99. Context BL/76.

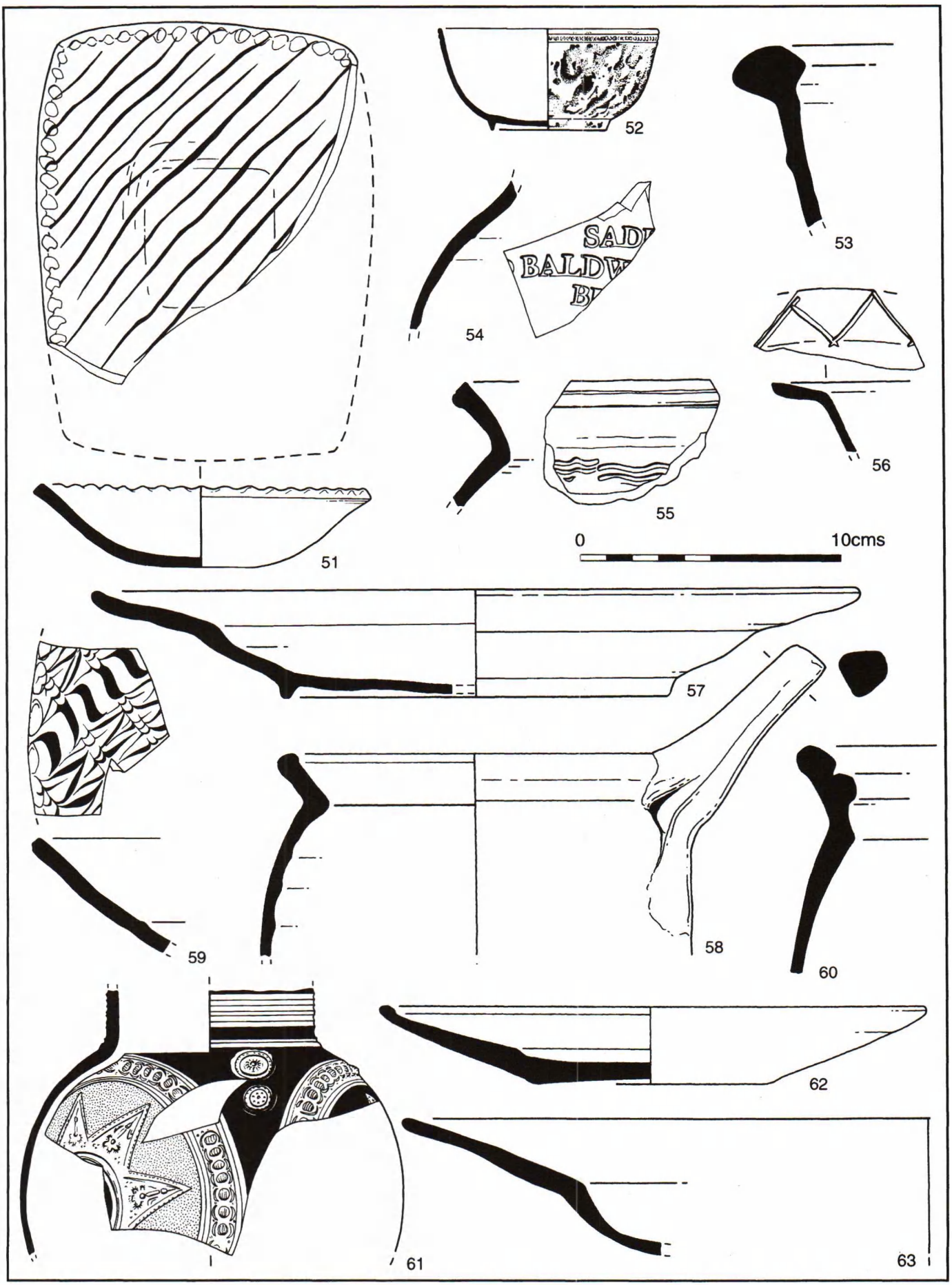


Fig.28 Pottery, Period 4C.

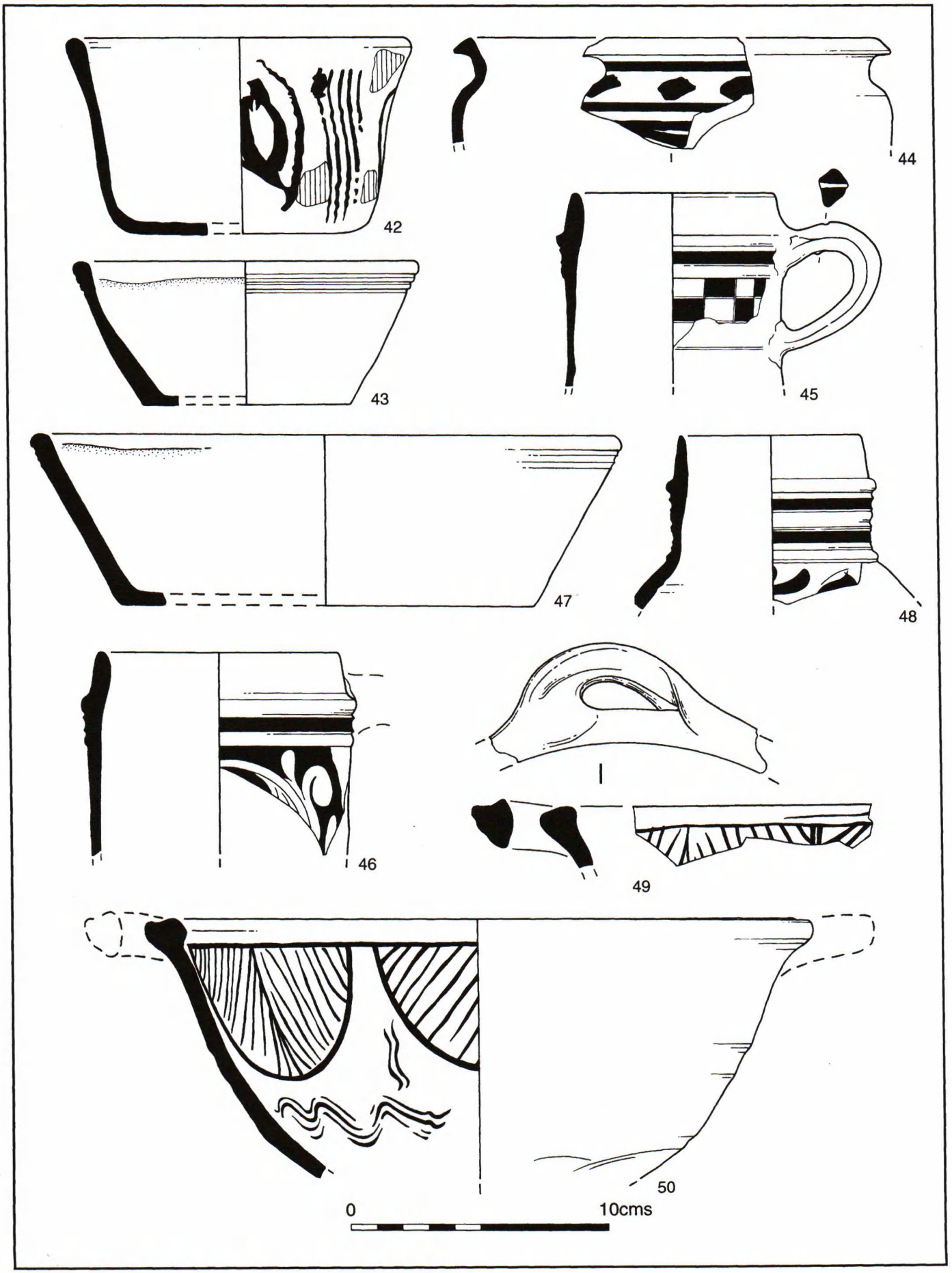


Fig.27 Pottery, Period 4C.

33. Base of a bowl in a fine white to off-white fabric. Internal lightly mottled green glaze. Some glaze dribbles on external surfaces. Beauvais - early 16th century. BPT318. Context 221 #.

34. Stoneware jar. Pale grey fabric with occasional black flecks. Lustrous tiger-skin glaze. Bristol BPT277. See Barton 1961, Fig.7.1 for a similar vessel. Context 221.

35. Tin-glazed unguent jar. Pale blue all-over tin-glaze. Probably Bristol BPT99. Context 60.

36. Small cup. Creamy yellow ground with red-brown contrast pellet decoration. The glaze does not reach the base. Bristol BPT100. A similar vessel has been described by Barton 1961, Fig.2.4. Context 208.

37. Wide mouth vessel with reversed contrast slip decoration. Function unclear but wide mouth drinking vessels or bowls with opposing handles set below the shoulder are known (Barton 1961, Fig.2 18 & 19). However, the present vessel is wider than Barton's examples with more of an out-turned rim. An alternative might be a child's toilet vessel. BPT100. Context 165.

38. Brown stoneware widemouth bottle. Fine grey fabric. Part of a legend survives --KING/--H.P. BPT277. Context 163.

39. Base of a candle-holder. Copper flecked glaze over a white slip on visible surfaces. Traces of white slip on underside. BPT280. Context 190.

40. Base of a rounded cup or mug with a pedestal foot. Patchy green glaze. Somerset, probably Donyatt BPT 268. Context 406 #.

41. Dish or straight sided bowl, internal brown glaze. Externally there are three grooves below the rim. BPT264. Context 54.

42. Slip and sgraffito decorated bowl. The glaze over a white slip is stained with copper. BPT268. Context 161.

43. Bowl. Clear lead (amber) internal glaze which does not reach the rim. BPT264.Context 205.

44. Jar. White tin-glaze with pale cobalt-blue decoration. Bristol BPT99. Context 221.

45. Stoneware tankard (Humpen) in a white to white-buff fabric. Cord decoration to base of neck and chequer board decoration to body. The decoration has been infilled with cobalt-blue which exhibits extensive bleeding. Poorly made vessel. BPT95. A tankard with similar decoration is described by Gaimster (1997, 267, Fig. 126). The poor quality of this vessel raises the possibility it might be an attempt to copy a Westerwald vessel. Context 16.

46. Stoneware tankard (Humpen) decorated with cords to upper body and stylised flora decoration below. Careless application of cobalt colour. BPT95. Context 60.

47. Bowl with all-over green flecked yellow-green poorly fitting glaze. Orange micaceous fabric with sparse quartz and red iron ores. Source uncertain, probably an import. Context 60.

48. Globular mug (Kugelbauchkrug) with cord decoration to the upper body and stylised flora decoration below, cobalt-blue infill with some bleeding of colour. BPT95. Context 60.

49. Sgraffito handled bowl. Mustard (clear lead over a white slip) glaze. BPT108. Context 191.

50. Bowl with sgraffito decoration on internal surface. Mustard yellow glaze. Some glaze runs externally. BPT108. Context 161.

51. Sub-rectangular sweet-meat dish. Press-moulded with a plain pie-crust edge. Combed slip decoration. A lack of quality in the finish suggests a probable Bristol product. BPT100. Context 208.

52. Tea bowl. Sponged manganese decoration beneath a green tinged clear glaze on a white earthenware body. Pelletted band beneath the rim. BPT339. Context 109.

53. Rim of a large, heavily potted bowl. The internal green glaze does not reach the rim. BPT112. Context 232.

54. Probably part of a stoneware bottle or jar. Impressed lettering. Pale brown glaze. BPT200. Context 163.

55. Jar. Everted rim with external bead with grooved top and three toothed wavy comb to shoulder. BPT114. Context 126 #.

56. Flanged rim of a ?bowl. The flange is decorated with deeply scored lines. Very hard red-brown fabric. Probably Romano-British. Context 161 #.

57. Shallow dish. BPT99. Context AR/76.

58. Pipkin. The green internal glaze does not reach the rim. BPT112. Context BX/76.

59. Press-moulded dish with rather square pie-crust edge. Combed and trailed decoration. BPT100. Context BL/76.

60. Jar. Everted rim with lid seating. Internal glaze. BPT112. Context BL/76.

61. Globular mug (Kugelbauchkrug). Reeded neck with large medallions to body. Coloured with cobalt and manganese. BPT95. Context BL/76.

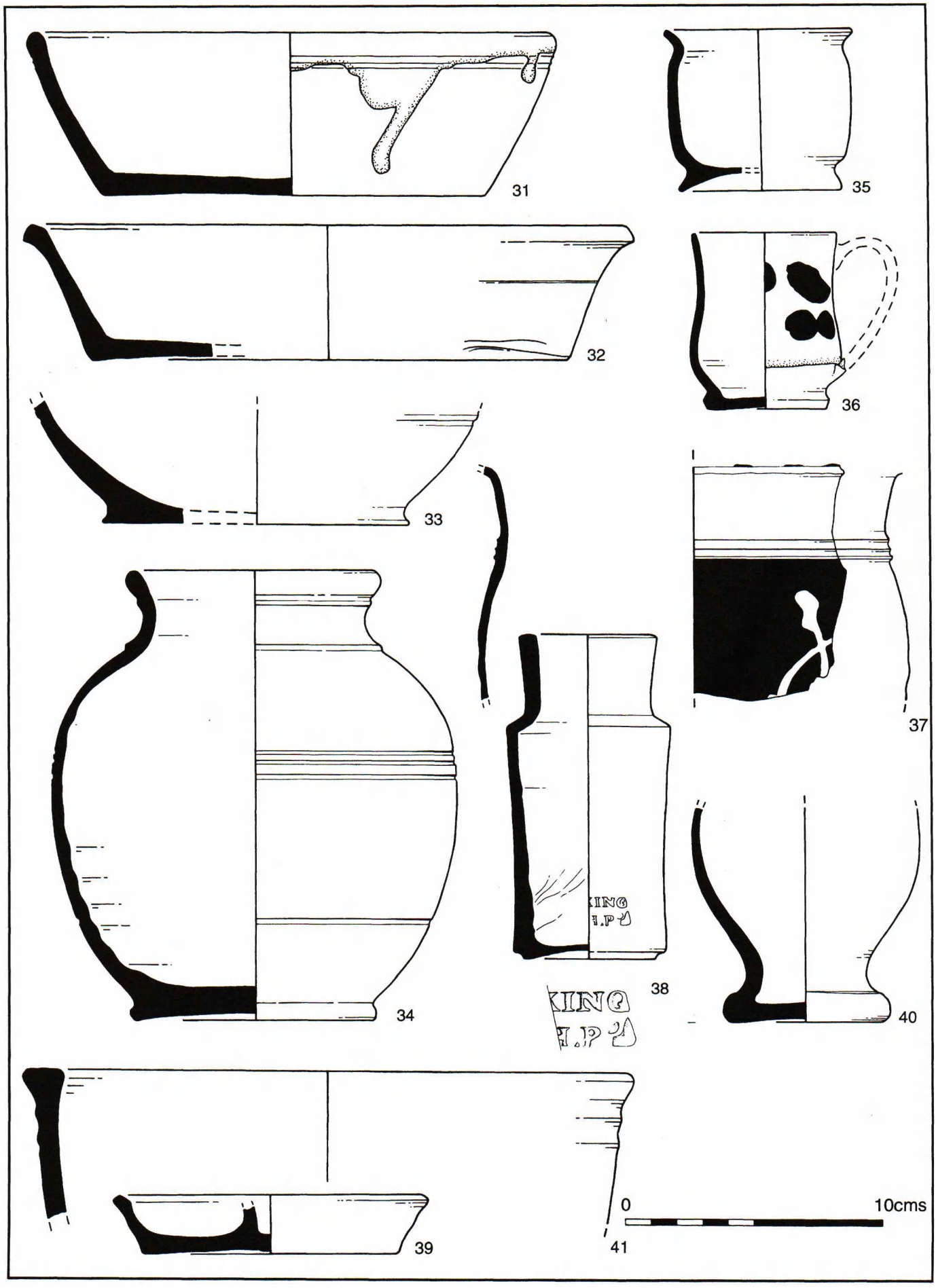


Fig.26 Pottery, Period 4C.

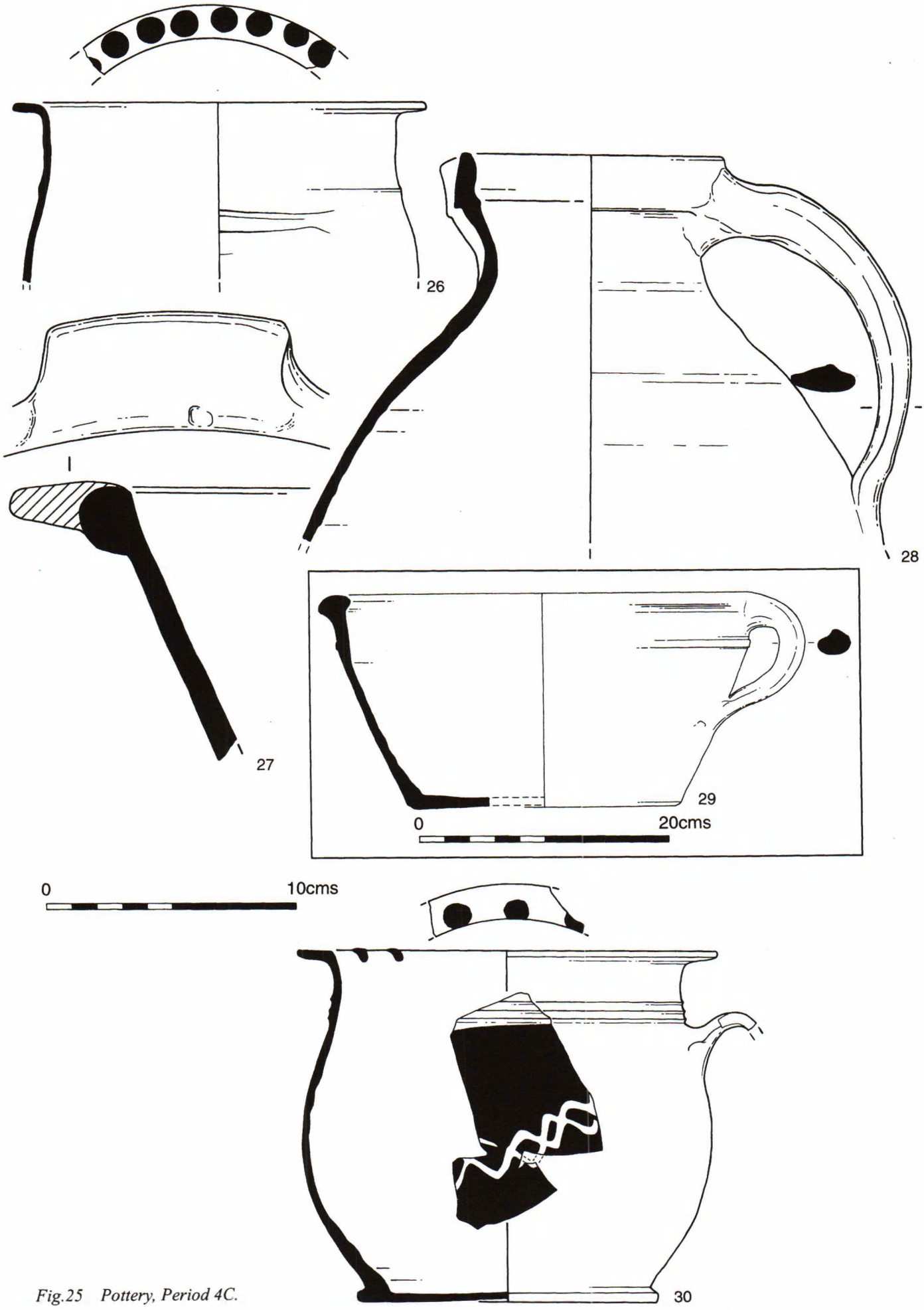


Fig.25 Pottery, Period 4C.

4. Part of a faceted D-section ring. Diameter 31mm. (Site 2, SF63/76, Context BL/76, fill of pit 14/76, Period 4C). See p102 right.

5. Narrow headed toothbrush. Holes for 36 sets of bristles held in place by three copper wires. Handle 76.5mm, head 53mm x 9.5mm. (Site 3, SF52/99 & 55/99, Context 95, fill of pit 96, Period 4C).

6. Fragment of worked bone with very faint division marks. Probably part of a measuring stick. Surviving length 77mm x 8mm x 5mm. (Site 3, SF25/99, Context 95, fill of pit 96, Period 4C).

7. Whittle-tang handle - flattened ellipse. Probably from an eating utensil. Length 80mm. (Site 3, SF147/99, Context 271, drain structure below floor of Pembroke Court, Period 4C).

8. Button fragment. (Site 3, SF113/99, Context 221, upper fill of cess pit 220, Period 4C).

9. Thin disc with central hole. Diameter 14mm/hole 2mm. (Site 3, SF120/99, Context 75, dumped layer, Period 4C).

10. Fragment of worked bone broken along one edge. Function not known. (Site 3, SF97/99, Context 159, dumped layer, Period 4C).

11. Disc with central hole possibly a button back. Diameter 16.5mm/hole 3mm. (Site 3, SF171/99, Context 263, layer, Period 4D).

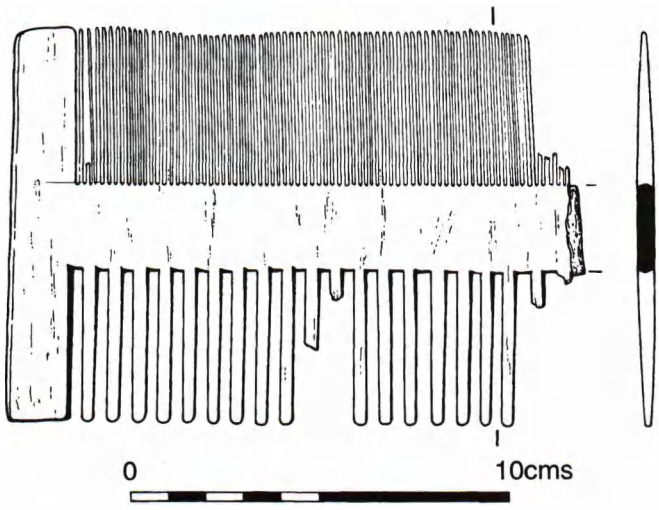
12. Button, concave centre with four-hole fixing. Diameter 13.5mm. (Site 3, SF41/99, Context 94, layer, Period 4D).

13. Incomplete ring. Diameter 43mm/29.5mm - 16mm segment missing from circumference. (Site 3, SF84/99, Context 81, fill of chimney base, Period 4D).

14. Soldier figurine, the arms are missing and the figure stands on a mount which probably allowed the figure to swivel. Possibly part of a child's toy. (Site 3, SF66/99, Context 167, fill of foundation trench 166, Period 4D).

15. Incomplete double-sided straight end comb. Fine/very coarse teeth. Surviving length 75mm x 53mm. (Site 2, SF2/76, unstratified). (See above, right).

Other fragments of comb from Site 2 as SF8/76 (Context BE/76, layer, Period 4B), SF32/76 (Context BP/76, fill of pit 12/76, Period 4A), SF85/76 (Context BL/76, fill of pit 14/76, Period 4C), SF107/76 (Context BL/76, fill of pit 14/76, Period 4C), SF125/76 (Context BW/76, foundation trench for wall 3/76, Period 4C), SF146/76 (Context BL/76, fill of pit 14/76, Period 4C), SF147/76 (Context BL/76, fill of pit 14/76, Period 4C) and SF162/76 (Context AU/76, layer, Period 4B).



Objects of Glass

by Rod Burchill

Glass was recovered from all three sites. However, it proved impossible to separate the bulk glass from Site 1 between the upper and lower excavations.

Excluding the small finds the glass recovered from Sites 2 and 3 weighed 34,375gm and comprised mostly wine and spirit bottles of late 17th- and 18th-century date. The glass was very fragmentary and heavily weathered, probably as a result of soil conditions. None was intrinsically interesting and none are illustrated.

1. Fragment of clear glass decorated with indented applied strip of blue-glass. (Site 1, SF76/73, Context HO/73, fill of pit 28/73, Period 2B(ii)).

2. Fragment from a rectangular blue-green bottle or flask with flange rim on a short neck. (Site 1, SF186/73, Context KF/73, unstratified but probably from Period 2B).

3. Fragment of very thin greenish glass. (Site 1, SF188/73, Context OY/73, fill of pit 26/73, Period 4A).

4. Fragment of emerald green glass with moulded decoration. (Site 1, SF58/73, Context EK/73, layer, Period 4A).

5. Triangular fragment of greenish glass. 47mm x 25mm to apex. (Site 1, SF175/73, Context OK/73, layer, Period 4B).

6. Bottle or decanter stopper. Ground glass bung with globular grip. (Site 3, SF133/99, Context 118, fill of pit 119, Period 4B).

7. Glass droplet probably waste. (Site 2, SF231/76, Context BK/76, layer, Period 4C).

8. Heat damaged glass - bottle rim. (Site 2, SF233/76, Context BK/76, layer, Period 4C).

9. Rim and string ring of a green glass bottle. (Site 1, SF408/73, Context OC/73, fill of drain, Period 4C).

10. Complete greenish glass phial. Cylindrical with short neck and simple flange rim. The punt has been sealed by a layer of glass. One side of the flange rim is wider possibly to aid the dispensing of 'drops'. Diameter 33mm x height 73mm. (Site 3, SF50/99, Context 60, fill of pit 61, Period 4C).

11. Slightly domed green glass disc. Diameter 60mm x maximum thickness 10mm. (Site 1, SF464/73, Context FM/73, fill of pit 9/73, Period 4C).

12. Base of cylindrical bottle or drinking vessel. Heavily weathered, clear glass. (Site 1, SF465/73, Context FM/73, fill of pit 9/73, Period 4C).

13. Clear glass phial. Cylindrical with flange rim: marked 'POWELL - BLACK FRIARS ROAD' in raised lettering. Diameter 23mm x height 96.5mm. (Site 3, SF82/99, Context 81, fill of chimney base 80, Period 4D).

14. Brown glass bottle, rim missing. Possibly a spirit bottle. (Site 3, SF81/99, Context 81, fill of chimney base, Period 4D).

15. Small barrel bead. Opaque emerald green glass. 6mm x 6mm x 4mm hole. Such beads are common on late Romano-British sites and this example may be one such (see Foster 1986, Fig 85.907-908). (Site 1, SF71/73, Context FQ/73, unstratified).

Object of Leather

by Rod Burchill

1. Heel from a shoe. Constructed of at least five pieces of leather with a minimum of nine nail holes. (Site 1, SF420/73, Context OE/73, fill of well (pit 25/76), Period 4B).

Objects of Stone

by Rod Burchill

1. Weathered Oolitic limestone block. Maximum dimensions 150mm x 125mm x 140mm high probably structural. (Site 1, Context EQ/73, fill of pit 28/73, Period 2B(ii)).

2. Fragment of quartz crystal - possibly decorative. (Site 1, SF475/73, Context HO/73, fill of pit 28/73, Period 2B(ii)).

3. Six fragments of Oolitic limestone - all probably structural. (Site 1, Context RA/73, Period 2B(iii)).

4. Pennant sandstone disc. Roughly finished. Possibly used as a large counter but more likely as a lid or cover. Diameter 75mm x 12mm thick. (Site 2, SF182/73, Context CO/76, layer, Period 2C).

5. Quern stone with radial grooves on the grinding surface and faint vertical grooves on edge. Uncertain but probably part of upper stone. Quartzitic sandstone. Insufficient survives to calculate diameter. Surviving dimensions 210mm x 50mm thick. (Site 2, Context DA/76, layer, Period 2C).

6. Fragment of worked quartzitic sandstone. Possibly part of a whetstone. (Site 1, Context MB/73, stone spread, Period 3A).

7. Badly weathered Oolitic limestone block. Sub-rectangular with a single straight edge surviving. Maximum dimensions 170mm x 115m x 45mm thick. (Site 1, Context RP/73, Period 3A).

8. Large flat, sub-circular, stone pebble. Probably used as a rubber or polishing stone. Maximum diameter 100mm, maximum thickness 15mm. (Site 1, Context QJ/73, layer, Period 3B(i)).

9. Pennant sandstone disc probably used as a cover or a lid. Diameter 88mm. (Site 1, SF552/73, Context KW/73, limestone feature , Period 3B(i)).

10. Slate counter. Diameter 33mm. (Site 1, SF407/73, Context OW/73, layer, Period 4A).

11. Slate counter. Diameter 40mm. (Site 2, SF17/76, Context BB/76, fill of pit 12/76, Period 4A).

12. Fragment of Pennant sandstone rooftile. Part of a peg hole survives. Torching survives on lower surface. Maximum surviving dimension 65mm x 65mm. (Site 2, BP/76, fill of pit 12/76, Period 4A).

13. Fragment of slate, one edge sawn - two other deep saw marks on surface. (Site 2, SF22/76, Context BH/76, layer, Period 4B).

14. Incomplete slate roof tile with single peg hole, evidence of 'torching'. Slate probably of Welsh origin. (Site 2, Context AX/76, general cleaning layer, Period 4B).

15. Fragment of slate pencil . Surviving length 28mm. (Site 3, SF115/99, Context 211, masonry plinth, Period 4B).

16. Fine ovoid jet bead with flattened faces and central hole. (Site 2, SF90/76, Context BL/76, fill of pit 14/76, Period 4C).

17. Two fragments of Cornish slate - one piece heat damaged. (Site 2, Context AL/76, layer, Period 4C).

18. Incomplete slate tile. 113mm x 100mm. (Site 2, Context AL/76, layer, Period 4C).

19. Incomplete Pennant sandstone rooftile with single peg hole. Maximum surviving dimensions 220mm x 230mm x 17mm thick. Hole 9mm. (Site 2, Context AR/76, fill of pit 8/76, Period 4C).

20. Fragment of square section quartzitic sandstone with chamfered edge. Possibly structural. Length 55mm x 30mm x 24mm. (Site 3, SF168/99, Context 56, fill of cultivation trench 57, Period 4C).

21. Fragment of worked stone. Wedge-shaped ellipse. Length 85mm x 53mm x 25mm reducing to 15mm thick. Quartzitic sandstone. Probably architectural. (Site 3, SF58/99, Context 75, dumped layer, Period 4C).

22. Fragment of square section quartzitic sandstone. Possibly a whetstone. Length 77mm x 26mm x 26mm. (Site 3, SF257/99, Context 192, fill of foundation trench 132, Period 4D).

Seventeen fragments of Pennant sandstone rooftile and fourteen fragments of roofing slate were recovered from Site 3. All represented rectangular tiles and all were probably fixed using a single peg. No details were found for stone or slate tiles from Sites 1 and 2 other than those listed as small finds.

CONCLUSIONS

Since the late 1960s many archaeological excavations have been carried out in Bristol, with attention being concentrated on important sites within the medieval city: the castle, town defences, churches, monastic buildings and quays. Without exception, these were all rescue excavations. Consequently the archaeologists were always trying to keep up with the fast pace of development, moving from site to site with demolition and building contractors forcing their pace of work and adequate funding for the projects being the exception rather than the rule.

The 1973 excavation on the Franciscan friary in Lewins Mead was typical of its time: covering a large area on one of the most important monastic complexes in the city but with time and funding in short supply. It is to the credit of the excavators that, despite these shortcomings, they were able to direct some of their attention to an area away from the church and other monastic buildings where, by chance, they had uncovered evidence of the first Roman settlement found in Bristol. It is regretable that publication of the findings did not follow, but nevertheless the records kept were of a standard to allow this report to be prepared over twenty-five years after the event.

The excavations at Upper Maudlin Street in 1973, 1976 and 1999 are unique in Bristol in that they concentrated on an area outside the medieval city which, until the work carried out as a spin-off from the main 1973 excavation, was thought to have remained unoccupied until the post-medieval period. The excavations, together extending over 200 metres along the hillside, allowed a detailed investigation of the archaeology and history of this apparently unprepossessing area overlooking the city. The unexpected results showed mans' involvement there through the prehistoric, Roman and medieval periods to the present day.

The lower slopes of Kingsdown, ending at the sandstone cliff bordering the tidal flood plain of the River Frome, were obviously an attractive stopping point in the semi-nomadic lives of Neolithic and Early Bronze Age people. The presence of numerous worked flints and chert dating to those periods, although occurring as residual finds in later contexts, suggest at the very least a series of visits by people over a fairly long period of time who were engaged in activities including the use and maintenance of flint tools. The quantity of material recovered is quite large but comparison with other assemblages, such as that from Tower Lane, Bristol, is impossible when the flint recovery policies on the 1973 and 1976 excavations at Upper Maudlin Street are unknown and the Tower Lane assemblage remains unpublished.

We are on firmer ground with the evidence of Roman occupation. Although much had been destroyed by medieval and post-medieval activity sufficient features, stratification and finds remained to suggest that intensive occupation occurred from the late 2nd through to the 5th centuries. The extent of the Roman settlement has still to be resolved. It seems likely that the Roman occupation extended down the hill to the east as residual Roman pottery sherds were found in that vicinity during the excavation at the east end of St James' priory. How far it extended to the north is not known but to the south the line of the cliff almost certainly formed its natural limit. Occupation was not present on Site 3 although there was evidence of mineral working in that area during the Roman period. It is possible that the cobbled track or causeway found in 1912 in St Augustine's Parade, 550 metres to the south-west, and apparently of Roman date, was in some way linked to the Upper Maudlin Street settlement.

The Roman features and structures were ephemeral and their use enigmatic. The evidence for late 2nd- to mid 3rd-century occupation was very limited: little can be said about a single slot or gully other than that it may have been a field boundary. The main period of activity, during the late 3rd and 4th centuries, falls into three phases: a series of gullies, postholes and occupation layers were followed by a number of pits cut into the natural and culminated in the erection of a building or buildings with stone foundations associated with a furnace, a gully and occupation deposits.

Although there was no occupation material on Site 3, the finds made there provide a clue to the purpose of the settlement. There were many lumps of iron slag littering the surface of the exposed bedrock and fragments of natural stone with slag-runs on their surfaces; obviously debris from industrial activity on a fairly large scale. This all seems to be clear evidence of iron working, probably the result of the open-cast working of a seam or outcrop of iron ore in the Triassic strata. Indeed, the excavator of Site 1 commented on the possible presence locally of ore-bearing strata although at that time there was little evidence of industrial

activity and consequently it was suggested that the settlement was typical of other Roman rural settlements in the Frome and Avon valleys (Ponsford 1975).

Nevertheless the excavation on Site 1 had uncovered the remains of what was almost certainly a bowl-furnace used either for smelting the ore or for smithing the blooms produced during the smelting process. Other excavated examples show that these furnaces were little more than shallow holes in the ground into which the draught had to be artificially introduced by bellows, and whose capacity was very limited (Frere 1967, 296). The furnace found on Site 1 seems to be typical of its type: some 0.7m across and showing evidence of intense heat. Parts of its clay dome survived around the edge of the bowl, had fallen back into the bowl or had been scattered in an arc to its north-east. Unfortunately the lumps of iron slag which still lay within the bowl were not retained for analysis.

The iron working debris from Upper Maudlin Street may be compared with the evidence recovered from other recent excavations of Roman sites in the Bristol area: at Stonehill (near Hanham) and Gatcombe. Although thought to have been primarily a rural settlement, the excavations at Stonehill uncovered considerable evidence for industrial activity in the form of a bowl furnace and quantities of iron smelting and, possibly, smithing slags - the ironworking apparently taking place mainly during the later 3rd to early 4th centuries (Stiles *et al* 1992; Yorkston & Piper 1995). At Gatcombe a number of buildings seem to have been reserved for ironworking which took place on a considerable scale, coal being used to fuel the smelting furnaces. It was thought that there were possibly two local sources for the iron ore used at Gatcombe: at Providence Hill, Long Ashton, and Bellmont Hill, north of the site (Tylecote 1977, 125).

Although the chief iron-fields of Roman Britain were the Wealden area of Kent and east Sussex, the Forest of Dean and the Northampton-Lincolnshire region, less important iron deposits were exploited and traces of small-scale smelting are widely distributed. The Upper Maudlin Street site falls into the category of small-scale iron production using local sources of ore and was thus similar to other sites noted elsewhere in the Bristol region.

It is not clear when the settlement was abandoned. Coin and pottery evidence from other Roman sites in and around the Avon valley - Keynsham, Brislington and Inns Court - suggest that they were deserted in the mid to late 4th century. The site at Gatcombe, whether villa or state controlled agricultural depot, has been interpreted as being abandoned abruptly c.370 and then reoccupied a few years later, albeit on a smaller scale, with coin evidence continuing up to c.402 (Branigan 1977, 178). The presence of 5th-century pottery on Site 2 at Upper Maudlin Street suggests that the settlement continued to be occupied, at least in part, after the abandonment of other major sites in the area, and that it survived the general collapse of Romano-British culture, society and economy following the official political and military withdrawal in AD 410.

Following the abandonment of the Roman settlement there is a gap in the archaeological record for over six centuries. A few sherds of early 11th-century pottery occurring as residual finds in later medieval contexts implies the presence of pre-Conquest activity in the area. Quite what form this would have taken is impossible to say. The nearest known late Saxon occupation was around the castle and Bristol Bridge and in the area of Broad Street and Tower Lane, all to the south, and in the area of St Augustine's Abbey to the west. At present the earliest recorded medieval occupation around the Upper Maudlin Street sites was just to the north-west where an Augustinian nunnery, St Mary Magdalen's, was founded c.1170.

The first clear evidence of medieval land use occurs in the late 12th century when the ditch found on Site 1, and also noted further south in Trench 5W, was dug down the hillslope. Only a small portion of the fill of this ditch was excavated but it contained late 12th-century pottery and had apparently gone out of use by the 1230s. The ditch seemed to have been replaced by a roughly built wall which followed the same alignment and had been built over the backfill of the ditch. Although there was no direct dating evidence for the construction of the wall, it is likely that the ditch and wall represent two succeeding phases of an early medieval property division or field boundary. To the west of the wall and ditch were two spreads of compacted stone both containing late 12th-/early 13th-century pottery. The purpose of the stone spreads is difficult to determine on the limited evidence available. They may be the remains of working or yard surfaces perhaps associated with a building or buildings lying outside the area of the excavation.

Further west on Sites 2 and 3 the only evidence of activity during the 12th and early 13th centuries were four small pits cut into the bedrock.

From the middle of the 13th century until 1538 the Franciscan order owned all the land stretching from Lewins Mead to Upper Maudlin Street. It has been assumed that the northern, upper, portion of their precinct was probably used as orchards, herb gardens, vegetable plots or vineyards. The agricultural nature of the land use was confirmed by the archaeological record, the majority of the excavated areas being covered, where they had survived later disturbance, by cultivation soils. These contained finds of mixed dates - as one would expect of soil which had been tilled over hundreds of years - ranging from prehistoric flints to late 15th-century pottery. The absence of 16th-century pottery from these agricultural soils might imply that cultivation ceased some time before the Dissolution of the friary in 1538 but perhaps we are simply not recognising the presence of early 16th-century pottery which is notoriously difficult to differentiate from 15th-century material.

The major feature dating from the Franciscan occupation was a 15 metre length of culvert crossing Site 1 which would have carried the water supply for the friary. It is possible that none of the culvert revealed during the excavation was medieval. The site records show it as something of a hotch-potch of construction phases: stone or brick bonded with pink, off-white or brown sandy mortars. Only the latter mortar is typical of medieval structures in the

city and suggests that some of the original culvert may have survived later rebuilding work. The lead pipe carrying the water through the culvert was made with a large lap joint along its top. Lead water supply pipes found on other monastic sites were generally made from a rectangular sheet of lead about a metre long which was bent over a wooden rod, with molten lead poured along the join to create a seal (Greene 1992, 115). The lead pipe found in the culvert was therefore not of typical medieval construction and probably dates from 1602 when records show that the pipe was replaced.

Only a few other features belonged to the mid 13th to the mid 14th centuries. They comprised a stone-lined drain and a possible floor or working surface on Site 1 while further to the west, mainly on Site 3, there were a number of pits.

After the Dissolution of the friary in 1538 the area occupied by the three sites continued to be used for cultivation as orchards and gardens although a number of pits, some quite large, were dug during the later 16th to the mid 17th centuries. It is likely that the pits were initially excavated to quarry the natural bedrock although some were certainly utilised as rubbish dumps, the backfill of one of the largest pits on Site 3 containing much demolition debris and domestic waste.

By the end of the 16th century the former precinct of the Franciscan friary had been split into separate plots and in 1585 the largest of the remaining areas was granted by the City of Bristol to Richard Cole. By that time at least two lodges or garden houses had been built on the land and these were almost certainly intended as places of retreat for some of Bristol's wealthy citizens, away from the confines of the walled city. The establishment of these garden houses marked a major change in the land use on all three sites; the formerly open hillside was divided into gardens, probably separated by high boundary walls. The walled gardens adjoining the houses were an important part of the retreat, being used as sources of pleasure and fresh produce.

One garden house with its garden occupied the north-west corner of Site 3 which, by 1753, was owned by James Stewart, a schoolmaster. Sometime in the late 16th century a wall running north/south and measuring at least 9.4 metres long, with a 3 metre long return to the east at its southern end, was constructed in the western portion of Site 3. This probably occurred after 1585 as it was not referred to in the land grant of that year. The north/south wall served as the eastern boundary to the garden later owned by James Stewart and is shown on the 1753 drawing of the property. The 16th-century walls almost certainly survived the construction of Pembroke Place in the mid 18th century and were probably not completely demolished until the 1970s.

All of Site 3 to the east of the late 16th-century north/south wall became a formal garden. Rubbish was first dumped on the southern portion of the hillside in an attempt to level the slope to some degree. A low retaining or terrace wall was then built across the garden from east to west and earth piled against the wall on its northern, uphill, side to level that area. The garden was then laid out on a formal rectilinear design with a main path running east/west to the south of the retaining wall with possibly four paths crossing it at right angles. The paths were surfaced with crushed yellow quartz and were bordered with Pennant sandstone slabs set on edge, presumably to retain the soil in the adjoining flower or vegetable beds. The full extent of the garden could not be ascertained as it went beyond the edges of the excavation to the south and north. To the west it terminated at the late 16th-century north/south wall, where one of the garden paths ran parallel and close to the wall, while the main east/west path appeared to end against the eastern edge of the excavation. To the south it would almost certainly have extended as far as the cliff edge while to the north it probably ran up to the back of the owner's house fronting Upper Maudlin Street.

Coin, pottery and clay tobacco pipe evidence indicates that the garden on Site 3 was laid out sometime between about 1670 and 1673. The paths were occasionally resurfaced and the garden design modified when the gaps for the north/south paths through the retaining wall were blocked and masonry plinths, perhaps the bases for statuary or garden urns, were built on the east/west path.

There were indications, albeit limited, that another formal garden occupied the area on and around Site 2. A rectangular area, measuring some 4.2 metres by at least 6 metres, was defined by Pennant sandstone slabs set on edge. A small area of stone paving survived in its south-west corner and it is possible that the whole of the rectangular area was paved, perhaps being surrounded by flower beds, and approached by a path through its western side.

The excavation in 1989 to the west of the 17th-century building occupied by Richard Corsley, a wealthy goldsmith, now known as the Abbot's House, produced further evidence of a formal garden layout that may have functioned as a herb garden. There, an area about 8 metres by 6 metres had been divided into twelve features composed of squares, rectangles and circles, the most complete measuring 0.9 by 0.8 metres. The edges of the features were defined by cattle cannon bones to form borders formally arranged on the north, west and south sides. A large pit 2.4 metres by 2.3 metres and some 1.2 metres in depth had a drain running into it, and may have been a cistern, pond or fountain.

The last few decades of the 20th century have seen an unprecedented interest in the recording and interpretation of historic gardens by means of archaeological excavation. However, the archaeological work has largely been concentrated on the large and important medieval and post-medieval gardens or parks attached to the great country houses of the nobility and landed gentry. A survey of published reports shows that very little or no attention has been paid to gardens belonging to the lower ranks of society, including the town gardens owned by wealthy city merchants, bankers, property owners or manufacturers. Thus the evidence found for the formal gardens on the Upper Maudlin Street sites is probably unique, making the discoveries of particular interest and importance.

Millerd depicted many such gardens on his 1673 map of Bristol - mainly situated outside the walls of the medieval

city - and purports to show the design of those gardens in some detail including the layout of paths, the positions of trees and the location of garden buildings. Clearly those details must be treated with some caution as the layout of the garden he showed in the Upper Maudlin Street area bears no resemblance to the contemporary excavated remains.

The garden on Site 3 probably went out of use sometime between 1707 and 1722, or perhaps slightly later. The sale in 1735 of the plot of land later occupied by the Welsh Baptist chapel certainly marked the final demise of the garden. The erection of a north/south fence on approximately the later line of the east wall of the chapel probably dates to the 1735 division of the land. A similar date applies to the abandonment of the garden on Site 2 and the garden adjacent to the Abbot's House apparently became less formal in the 18th century.

Although still apparently used for cultivation, presumably by the owners of the newly erected houses outside the excavated area to the north, the land became an area for the disposal of rubbish and a large number of pits were dug across Sites 2 and 3 for that purpose. The rubbish used to fill these pits showed that they ranged in date from the first half of the 18th century to the mid 19th century. Only one of the pits, dating to the period c.1720 to 1780, had clearly been used as a cess pit and was rectangular in shape, stone-lined and some 1.75 metres deep.

To the west of the north/south boundary fence on Site 3 a number of shallow slots with rounded ends had been dug in the 1830s or 1840s, probably for cultivation purposes. To the east of the fence line earth and rubbish had been tipped in layers down the hill side forming a deposit about half a metre deep.

In the middle of the 18th century the land use on Sites 1 and 2 and on the western portion of Site 3 changed dramatically, almost the whole area being covered by buildings. After James Stewart's death in 1759 a large part of his garden became the site of nos. 1 to 4 Pembroke Court, the buildings surviving until their demolition in 1973. By 1757 the whole of Sites 1 and 2 were covered by the Moravian Chapel and its associated buildings including the Minister's House, Sisters' House and school all surrounding a central burial ground. In 1840 the Welsh Baptist chapel was built over the remaining open portion of Site 3 while the land adjoining the chapel was covered by houses, shops and industrial buildings.

BIBLIOGRAPHY

Primary Sources

Bristol Record Office (BRO)
Building Plan Book vols.6, 15, 32a
F.C. Jones Collection.
35722/1/1 - transcript, the original having been returned to its owner
04041 fols. 330-1
30251/Bd/Ch3/2
F/Tax/A/1
754(8)
05588
Tax assessments for St James's parish
Hearth tax returns 1668 & 1673
Osborne Clark, bundle of old deeds
Public Record Office (PRO)
CCR: Calendar of the Close Rolls
CPR: Calendar of the Patent Rolls
PROB4/12120

Bristol Reference Library
Bristol and Clifton Guide 1906.
Bristol Times and Mirror 1892.

University of Bristol Library
Archives of the Bristol Moravian Church.

Bodleian Library, Oxford
MS Gough Somersetshire 2
Aerofilms Ltd., Borehamwood, Herts
Photograph 21237

Secondary Sources

Atkinson, D R, & Oswald, A. 1980 The dating and typology of clay pipes bearing the Royal Arms. *BAR Int Series* 78, 363-391.

Barrett, W, 1789 *The history and antiquities of the City of Bristol.* Bristol.

Barton, K J, 1961 Some evidence for two types of pottery manufactured in Bristol in the early 18th century. *Trans Bristol & Glos Archaeol Soc* 80, 160-172

Bishop, M, 1996 Finds from Roman Aldborough. *Oxbow Monogr* 65.

Bond, C J, 1993 Water management in the urban monastery. In R. Gilchrist & H. Mytum (eds), Advances in monastic archaeology. *BAR Brit Ser* 222, 43-78.

Boore, E J, 1982 Excavations at Peter Street, Bristol 1975-1976. *Bristol and Avon Archaeol* 1, 7-11.

Boore, E J, 1984 *Excavations at Tower Lane, Bristol.* Bristol: City of Bristol Mus & Bristol Threatened Hist Soc.

Boore, E J, 1986 The church of St. Augustine the Less, Bristol: an interim statement. *Trans Bristol Glos Archaeol Soc* 104, 217-222.

Branigan, K, 1977 Gatcombe roman villa 1967-76. *BAR Brit Ser* 44.

Burchill, R, forthcoming a. The ceramics. In R. Jackson, *Archaeological excavations at Inns Court, Knowle West, Bristol. A Roman settlement and medieval manor house.*

Burchill, R, forthcoming b. Ceramics. In J. Bryant, Excavations at Minster House, Bristol.

Clark, G T, 1850 *Report to the General Board of Health on a preliminary inquiry into the sewerage, drainage, and supply of water, and the sanitary condition of the inhabitants of the City and County of Bristol.* London: HMSO.

Clifford, E, 1961 *Bagendon: a Belgic Oppidum.* Cambridge.

Crummy, N, 1983 The Roman small finds from excavations in Colchester 1971-9. *Colchester Archaeol Rep* 5.

Crummy, N, 1988, The post-Roman small finds from excavations in Colchester 1971-85. *Colchester Archaeol Rep* 6.

Cuthbert, Fr. 1903, *The friars and how they came to England, being a translation of Thomas of Eccleston's* 'De Adventu F.F. Minorum in Angliam'. London: Sands & Co.

Dark, K, 1998 Centuries of Roman survival in the West. *British Archaeol* 32, 8-9.

Davies, J A, 1927 *Early Life in the West.*

Dawson, D, 1981 Archaeology and the medieval churches of Bristol, Abbots Leigh and Whitchurch. *Bristol Archaeol Res Group Rev* 2, 9-24.

Dickinson, J C, 1976 The origins of St. Augustine's, Bristol. In P. McGrath & J. Cannon (eds), *Essays in Bristol and Gloucestershire History,* 109-126. Bristol: Bristol Gloucestershire Archaeol Soc.

Duco, D H, 1982 Merken van Goudse pijpenmakers 1660-1940. Uitgeversmaatschappij De Tijdstrrom Lochem.

Duco, D H, 1987 *De Nederlandse Kleipijp.* Leiden: Pijpenkabinet.

Dugdale, W, 1823 *Monasticon Angliacanum: a history of the abbies and other monasteries, hospitals, frieries and cathedral and collegiate churches, with their dependencies, in England and Wales ...* Vol. IV. London.

Egan, G, 1998 *The medieval household. Daily living c.1150-c.1450. Medieval finds from excavations in London:* 6. London: HMSO.

Ellis, F, 1893 Pottery and other remains found on Romano-British sites near Bristol. *Proc Clifton Antiquarian Club* 2, 157-163.

Ellis, P, 1987 Sea Mills, Bristol: the 1965-1968 excavations in the Roman town of Abonae. *Trans Bristol & Glos Archaeol Soc* 105, 15-108.

Esmonde Cleary, A S, 1989 *The ending of Roman Britain.* London.

Evans, D R, & Metcalf, V M, 1992 Roman Gates Caerleon. *Oxbow Monogr* 15.

Foster, J, 1986 Glass beads. In I. Stead & V. Rigby, Baldock: The excavation of a Roman and pre-Roman settlement, 1968-72. *Britannia Monogr* 7, 195-196.

Frere, S, 1967 *Britannia: a history of Roman Britain.* London: Routledge & Kegan Paul.

Gaimster, D, 1997 *German stoneware 1200-1900.* London: British Museum Press.

Gaimster, D R M, Margeson, S, & Hurley, M, 1990. Medieval Britain and Ireland in 1989. *Medieval Archaeol* 34, 168-169.

Good, G L, 1987 The excavation of two docks at Narrow Quay, Bristol, 1978-9. *J. Soc Post-Medieval Archaeol* 21, 25-126.

Good, G L, & Russett, V E J, 1987 Common types of earthenware found in the Bristol area. *Bristol and Avon Archaeol* 6, 35-43.

Greene, J, Patrick 1992 *Medieval monasteries.* Leicester University Press.

Grinsell, L, 1986a The Lower Bristol Avon as a thoroughfare from Prehistoric times to the Norman Conquest. *Bristol and Avon Archaeol* 5, 2-4.

Grinsell, L V, 1986b *The history and coinage of the Bristol mint.* Bristol City Museum & Art Gallery.

Haldane, J W, 1966 Stokeleigh Camp. *Proc University of Bristol Spelaeol Soc* 11(i), 31-8.

Harvey, J H, (ed.) 1969 *William Worcestre: Itineraries.* Oxford: Clarendon Press.

Hayes, J W, 1980 Turkish clay pipes: a provisional typology. *BAR Int Series* 92, 3-10.

Hebditch, M, & Grinsell, L, 1968 *Roman sites in the Mendip, Cotswold, Wye Valley and Bristol region.* Bristol Archaeological Research Group Field Guide 2.

Hinton, D A, 1984 The towns of Hampshire. In J. Haslam (ed), *Anglo-Saxon towns in Southern England,* 149-165. Chichester: Phillimore & Co. Ltd.

Hudd, A E, 1904 Four bronze implements from Coombe Dingle, Gloucestershire. *Proc Clifton Antiquarian Club* 5, 118-121.

Jackson, R, forthcoming a. *Excavations at St James' Priory, Bristol.*

Jackson, R, forthcoming b. *Archaeological excavations at Inns Court, Knowle West, Bristol. A Roman settlement and medieval manor house.*

Jackson, R G, & Price, R H, 1974 Bristol clay pipes: a study of makers and their marks. *City of Bristol Museum and Art Gallery Research Monograph* 1. Bristol.

Jones, F C, 1946 *The Glory that was Bristol.*

Kellaway, G A & Welch, F B A, 1993 *Geology of the Bristol district. Memoir for 1:63 360 geological special sheet (England and Wales).* London: HMSO.

Krommenhoek, W, & Vrij, A, 1986 *Kleipijpen drie eeuwen Nederlandse kleipijpen in foto's.* Amstelveen: Drukkerij WEVO.

Latimer, J, 1893 *The annals of Bristol in the eighteenth century.* Bristol: printed for the author.

Latimer, J, 1902 *The annals of Bristol in the nineteenth century.* Bristol: William George.

Leech, R H, 1997 The topography of medieval and early modern Bristol. Part 1: Property holdings in the early walled town and marsh suburb north of the Avon. *Bristol Record Soc* 25.

Leech, R H, 2000 The St Michael's Hill Precinct of the University of Bristol: the topography of medieval and early modern Bristol, Part 2. *Bristol Record Soc.*

Lobel, M D, & Carus-Wilson, E M, 1975 Bristol, in *The atlas of historic towns* 2, 1-27. London: Scolar Press.

Loyn, H R, 1962 *Anglo-Saxon England and the Norman Conquest.*

Margeson, S, 1993 Norwich households. Medieval and post-medieval finds from Norwich Survey excavations 1971-78. *East Anglian Archaeol Rep* 58. Norwich.

Martin, A R, 1937 Franciscan architecture in England. *British Soc of Franciscan Studies* 18. Manchester University Press.

Martin, A T, 1897 Some coins from Bristol Harbour. *Proc Clifton Antiquarian Club* 3, 124-127.

Millerd, J, 1673 *An exact delineation of the famous Citty of Bristoll and Suburbs.* Bristol: Millerd (Facsimile ed., 1979: City of Bristol Printing & Stationery Dept).

Mitchiner, M, & Skinner, A, 1984 English tokens c.1425-1672. In C.E. Challis & M.A.S. Blackburn (eds.) *The British Numismatic Journal.* Gloucester: Alan Sutton.

Nicholls, J F, & Taylor, J, 1881 *Bristol: Past and Present.* Vol. 1. Bristol: J.W. Arrowsmith.

North, J J, 1960 *English hammered coinage* Vol. 2. London: Spink & Son.

Page, W, (ed) 1906 *The Victoria County History of the County of Somerset,* Vol. 1. London: Archibald Constable & Co. Ltd.

Ponsford, M W, undated Bristol. In M. Aston & R. Iles (eds), *The archaeology of Avon: a review from the Neolithic to the Middle Ages.* Bristol: Avon County Council, 145-149.

Ponsford, M W, 1971 *Bristol Castle; a Short Summary of the Recent Excavations.*

Ponsford, M W, 1975 *Excavations at Greyfriars, Bristol.* Bristol: City of Bristol Mus Art Gall & Bristol Threatened History Soc.

Ponsford, M, 1983 North European pottery imported into Bristol 1200-1500. In P. Davey & R. Hodges, *Ceramics and Trade.* University of Sheffield, 219-224.

Ponsford, M, 1988 The pottery. In B. Williams, The excavation of medieval and post-medieval tenements at 94-102 Temple Street, Bristol 1975. *Trans Bristol Glos Archaeol Soc* 106, 107-168.

Ponsford, M W, 1998 Pottery. In R. Price & M. Ponsford, St. Bartholomew's Hospital, Bristol. The excavation of a medieval hospital: 1976-8. *CBA Res Rep* 110.

Ponsford M, & Burchill, R, 1995 Iberian pottery from Bristol c.1200-1600. In C. Gerrard, A. Gutierrez & A. Vince (eds), Spanish medieval ceramics in Spain and the British Isles. *BAR Int Ser* 610, 315-318.

Ponsford, M W, et al 1990 Archaeology in Bristol 1989. *Trans Bristol Glos Archaeol Soc* 108, 180-181.

Potter, K R, (transl & ed), 1955 *Gesta Stephani. The deeds of Stephen.* London: Thomas Nelson.

Price, R, and Jackson, R & P. 1979 *Bristol clay pipe makers. A revised and enlarged edition.* Privately published.

Price, R, & Ponsford, M, 1998 St. Bartholomew's Hospital, Bristol. The excavation of a medieval hospital: 1976-8. *CBA Res Rep* 110.

Pritchard, J E, 1900 Bristol archaeological notes for 1900. *Trans Bristol Glos Archaeol Soc* 23, 262-275.

Pritchard, J E, 1904 Bristol archaeological notes for 1903. *Trans Bristol Glos Archaeol Soc* 27, 328-330.

Pritchard, J E, 1907 Bristol archaeological notes for 1907. *Trans Bristol Glos Archaeol Soc* 30, 212-232.

Pryce, G, 1861 *Popular history of Bristol.* Bristol: Mack.

Rahtz, P, & Greenfield, E, 1977 Excavations at Chew Valley Lake, Somerset 1977. *DOE Archaeol Rep* 8.

Ralph, E, & Williams, M E, 1968. The inhabitants of Bristol in 1696. *Bristol Record Soc.* 25.

Russell, J R, & Williams, R G J, 1984 Romano-British sites in the City of Bristol - a review and gazetteer. *Bristol and Avon Archaeol* 3, 18-26.

Saville, A, 1990, Hazleton North, Gloucestershire 1979-82. *English Heritage Archaeol Rep* 13. HBMC(E).

Seaby, P, & Purvey, P F, (eds.) 1981 *Standard catalogue of British coins,* 1. London: Seaby.

Sear, D R, 1964 *Roman coins and their values.* London: Seaby.

Seyer, S, 1821 *Memoirs historical and topographical of Bristol and its neighbourhood, from the earliest period down to the present time.* Vols 1 & 2. Bristol: J.M. Gutch.

Stiles, R, Cornwell, J, & Taylor, E, 1992 Romano-British industry at Stonehill, Hanham. *Bristol Industrial Archaeol Soc J* 24.

Stone, G F, 1909 *Bristol as it was and as it is.* Bristol: Walter Reid.

Tratman, E K, 1946 Prehistoric Bristol. *Proc Univ Bristol Spelaeol Soc* 5.3, 162-182.

Tratman, E K, 1962 Some ideas on Roman roads in Bristol and North Somerset. *Proc Univ Bristol Spelaeol Soc* 9.3, 159-176.

Tylecote, R F, 1977 Metallurgical remains. In K. Branigan, Gatcombe Roman Villa 1967-76. *BAR Brit Ser* 44, 125-127.

Veale, E W W, 1951 The Great Red Book of Bristol. Part III. *Bristol Record Soc* 16.

Veale, E W W, 1953 The Great Red Book of Bristol. Part IV. *Bristol Record Soc* 18.

Vince, A, 1977 The medieval and post-medieval ceramic industry of the Malvern region: the study of a ware and its distribution. In D. Peacock (ed), *Pottery and early commerce.* London, 257-305.

Ward, A, 1985. The pottery. In K. Blockley, Marshfield, Ironmongers Piece excavation 1982-3. An Iron Age and Romano-British settlement in the South Cotswolds. *BAR Brit Ser* 141.

Watts, L, & Rahtz, P, 1985 Mary-le-Port, Bristol. Excavations 1962-1963. *City of Bristol Museum & Art Gallery Monogr* 7.

Weare, G E, 1893 *A collectanea relating to the Bristol Friars Minor (Gray Friars) and their convent, together with a concise history of the dissolution of the houses of the four orders of mendicant friars in Bristol.* Bristol: W. Bennett.

Whitelock, D, (ed). 1961 *The Anglo-Saxon Chronicle.*

Williams, B, & Ponsford, M W, 1988 Clay roof-tiles. In B. Williams, The excavation of medieval and post-medieval tenements at 94-102 Temple Street, Bristol, 1975. *Trans Bristol & Glos Archaeol Soc*, 106, 107-168.

Williams, D, forthcoming. A petrological analysis of the floor tile fabrics. In R. Jackson, *Excavations at St James' Priory, Bristol.*

Wood, J, 1990 Pipes from the island of Kastelloriso. *Soc for Clay Pipe Res Newsletter* 25, 8-9.

Yorkston, D E, & Piper, P J, 1995 Excavation of a Romano-British site at Stonehill, Hanham. *Bristol and Avon Archaeol* 12, 5-17.

TWO GROUPS OF POST-MEDIEVAL POTTERY KILN WASTE FROM TEMPLE QUAY, BRISTOL, 1994

by Reg Jackson

INTRODUCTION

The last seven years has seen large-scale redevelopment take place in the area now known as Temple Quay which lies between Temple Meads railway station and Temple Way. Bristol and Region Archaeological Services have carried out excavations, evaluations and watching briefs on the various phases of this redevelopment although their work has mainly been concerned with the Portwall, a defensive structure built during the mid 13th century, which ran from north to south through the development area.

This report deals with the discovery in 1994 of two groups of post-medieval pottery kiln waste during the archaeological work at Temple Quay (BRSMG Accession No. 45/1994). The first group considered is of late 17th-century brown stoneware produced at Richard Champneys' pottery while the second is of 19th-century redware made at the Pipe Lane Pottery.

THE STONEWARE WASTE

England had been supplied with stoneware from various manufacturing centres in the German Rhineland since the 14th century but the first half of the 17th century saw a flood of stoneware imports, mainly of the so-called 'bellarmine' bottles from Frechen, near Cologne. The Bristol Port Books, which list goods exported and imported by ship through the city, confirm the large number of stoneware vessels (usually referred to as 'potts of stone') imported. Although the import records are fragmentary for the 17th century one Port Book for the year 1671 shows the following shipments of stoneware from Rotterdam: '25 dozen stone bottles', '1400 Earth and stone pots contained in 700 casks', '120 potts of Earth & stone', '900 casks of potts of earth & stone', and '7 dozen stone bottles' (PRO E190/1137/3).

This trade had traditionally been in Dutch hands but was disrupted during the 17th century by war and the introduction of the Navigation Acts. Between 1652 and 1673 England had been at war with the Dutch on three occasions while the Navigation Acts had restricted the import of goods, that of 1672, for instance, prohibiting the introduction of nearly all goods except those carried in English ships manned by crews of which at least three-quarters were English.

Thus it was inevitable that merchants would try to by-pass the difficulties encountered in obtaining stoneware from overseas by attempting to produce similar wares in this country. The earliest evidence for this was the discovery in

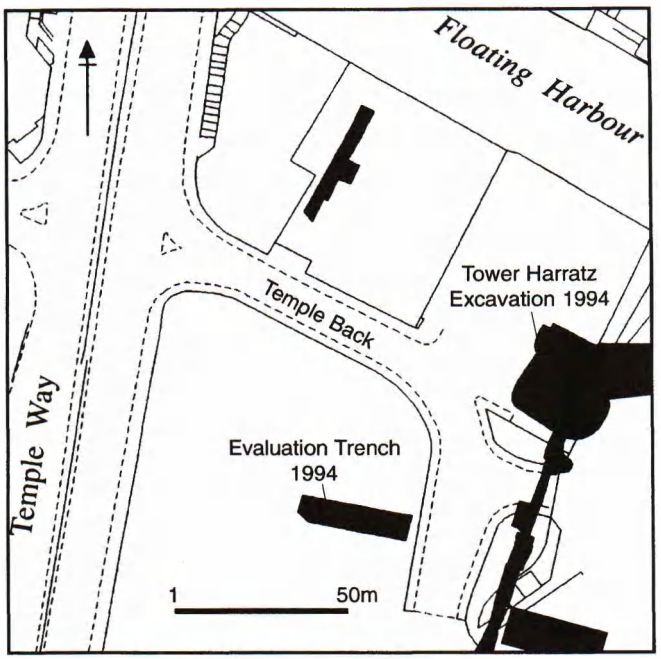


Fig.1 Site location plan.

1974 of a stoneware kiln of German design during excavations in Woolwich, London (Pryor & Blockley 1978). Originally thought to date to the 1660s it now seems more likely that the kiln and its products relate to the Patent for making stoneware granted to the merchants Thomas Rous and Abraham Cullen in 1626 (Haselgrove 1989-90). Further early attempts at making stoneware were apparently carried out by a Captain William Killigrew in about 1672 in Southampton and again in about 1674 in London (Haselgrove 1989-90). Killigrew tried to patent the production of stoneware but was beaten by his rival John Dwight of Fulham who patented the process for making 'Stone ware vulgarly called Cologne ware' on 17 April 1672 (Haselgrove & Murray 1979, 40-41).

By February 1674 Dwight was assuring a committee of the House of Lords that he could make 'as good and as much Cologne ware as would supply England' and by 1675 the archaeological evidence confirms that he was producing stoneware for sale. A second, more inclusive, Patent was granted for a further 14 years in 1684 and Dwight tried to protect his process during the 1690s by a series of lawsuits against a number of rival would-be stoneware potters including the Elers brothers of Vauxhall and Wedgwood of Burslem. It is clear from these lawsuits that towards the end

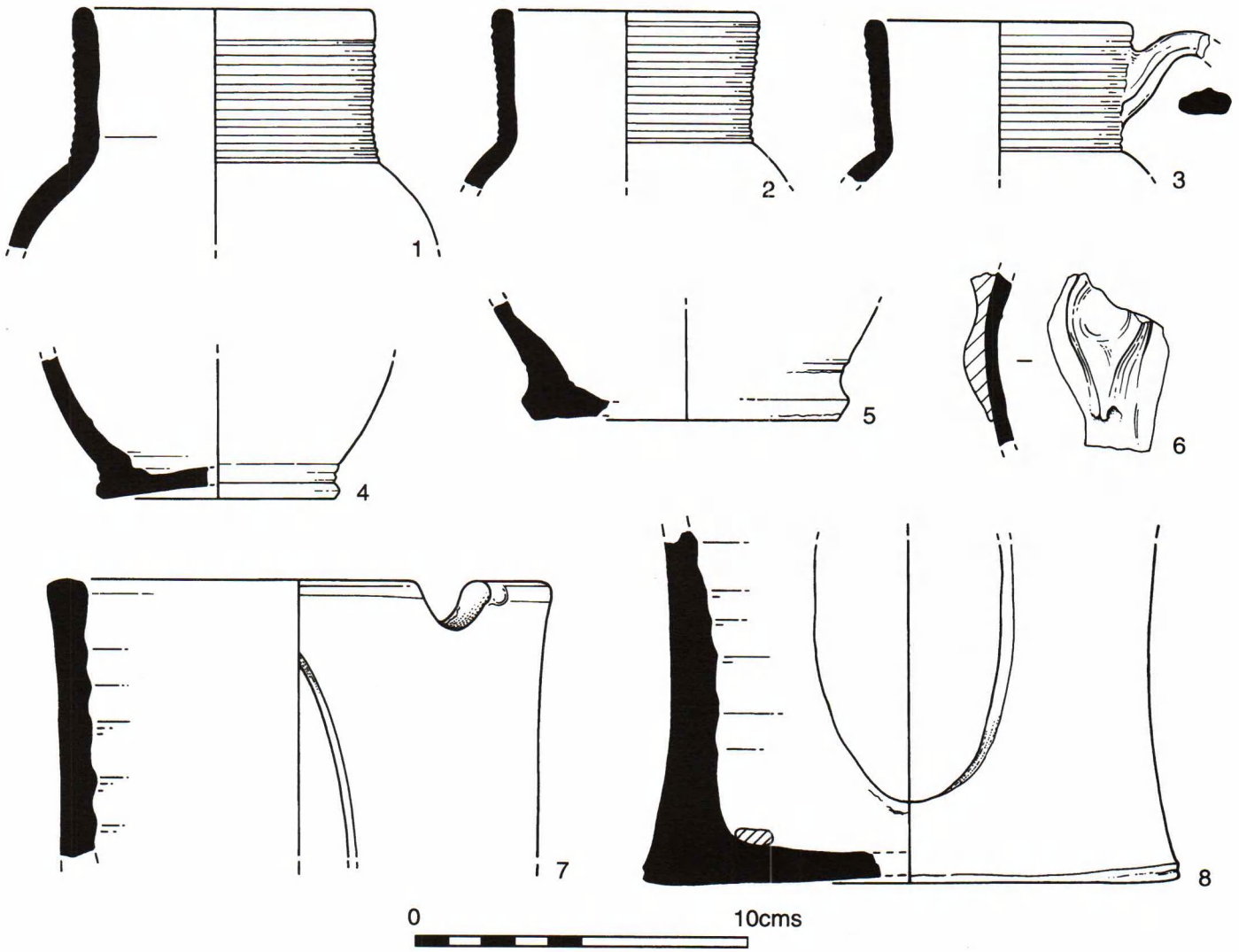


Fig.2 Stoneware pottery.

of the 17th century a number of manufacturers were determined to produce stoneware and obviously did so despite Dwight's attempts to enforce his Patent.

It now appears that a Bristol merchant was one of those who endeavoured to produce stoneware during the 1690s before the expiry of the Patent in 1698. A lease dated 28 September 1695 between the Corporation of Bristol and Richard Champneys referred to 'All that great Warehouse, storehouse adjoining and next to the great round Tower called Tower Harris alias Tower Harriotts and the Lofts and Buildings over the same warehouse or storehouse. And also the workehouse by the said Richard Champneys lately built intended for Pottmaking to the same great warehouse adjoining' (BRO ETD 00020).

A decision to grant Champneys a lease on this property had been made on 17 December 1694 when the premises were described as 'all those ruinous and decayed storehouses housings and buildings near and adjoyning to Tower Harris ... and reaching from the round tower ... to the River' (BRO 04335(8)).

It seems that Champneys had built his pottery between December 1694 and September 1695 very close to the medieval Tower Harratz at the northern end of the Portwall. It was probably located to the north-east of the tower, perhaps partly over the ditch in front of the wall, as the lease stated that Champneys was to keep in good repair 'the Sluce being under the said great Warehouse ... and keep clear the passage for the water from the same sluce into the River ...'.

The pottery seems to have had a very short period of operation as a rate book dated 1698 recorded the pottery as then being 'void', i.e. unoccupied (BRO 9 Will. III c.10). No other documentary references have been found to this pottery and until the archaeological excavations in 1994 it was not clear what type of ware was being manufactured (Fig.1).

The excavations uncovered evidence of a late 17th-century building in the angle between the medieval tower and the Civil War gun battery or redoubt which projected to the east of the tower (NGR ST 59592 72675). On the floor of that building was a layer containing sherds of stoneware pottery wasters and kiln furniture. The building had re-used as part of its structure a medieval wall 1.2m wide (context

757) abutting the north face of the tower which appeared to form a later continuation of the Portwall down to the bank of the river. A passageway through this wall was located 1.9m from the tower and had a well-made freestone threshold on its west edge with square sockets at each end for wooden uprights. To the east of the wall was a fine cobbled stone surface (716) running around the edge of the tower, and cut into the cobbled surface were three narrow slots (759-761) which represent the positions of timber base plates for part of the late 17th-century building. The presence of broken wall plaster in the building debris (730, 738) and on the outer face of the tower at this point showed that the building was plastered internally.

That this building was the 'workehouse ... lately built intended for Pottmaking' mentioned in 1695 is suggested by the presence of a layer of red sand (712) over the cobbled surface which contained late 17th-century stoneware kiln waste. Unfortunately only a small area of the building could be uncovered as it lay close to the edge of the excavated area.

The large number of waste sherds found in context 712 belonged entirely to vessels termed in contemporary documents as 'gorges', that is globular-bodied, single-handled drinking vessels with elongated necks decorated by combing (Fig.2, Nos.1-6). The sherds had an underfired white-buff fabric with frequent tear-drop shaped voids which, when examined at x30 magnification, were seen to contain inclusions of abundant fine, clear and rare quartz and rare red iron ores. A colour wash which fires to a dark brown had been applied over the top of the rim and externally but there was limited evidence for successful salt-glazing, the external surfaces of the sherds having a dull appearance. The handles have a short 'rat-tail' terminal where applied to the body of the vessel (Fig.2, No.6).

The kiln furniture was limited to fragments of round saggars having four large knife-cut apertures in their sides and small cuts in their rims (Fig.2, Nos.7-8). The wheel-thrown saggars have a fabric a little coarser than that used for the pots themselves with abundant sand tempering. Their surfaces had accumulated very little glaze. A number of saggar bases had bobs of clay adhering on which the gorges would have been stood to prevent them sticking to the saggar during firing.

It is interesting that gorges formed the bulk of the 17th-century assemblages at the Fulham pottery and that the saggars found at Tower Harratz were typical of those used at Fulham after c.1680 where some still contained the remains of gorges and tankards (Green 1999, 63 & 187).

THE REDWARE WASTE

The Pipe Lane Pottery was located on the west side of Pipe Lane some 20m south of its junction with Temple Back (NGR ST 59515 72620). It occupied a plot 10m wide by 35m long and contemporary plans show it consisted of a number of buildings grouped around a small yard with two kilns situated on the north side of the yard (Figs.3 & 4). Although clearly fronting on to Pipe Lane later documents sometimes gave its address as Temple Back, Borough Walls or Commercial Road.

The pottery was established by John Duffett in 1817. Duffett was first recorded as a potter in 1805 when he took over the stoneware pottery at 124 Temple Street, a manufactory which had been established in 1798 by Joseph Gadd and Company (previously of the Counterslip Pottery) and was then run by Charles Price from 1799 and by the partnership of Charles Price and Joseph Read from 1800.

From 1817 John Duffett's address was still given in the street directories as 124 Temple Street but they recorded that he had also established a redware pottery at Pipe Lane. In 1821 Duffett moved his entire business to the Pipe Lane Pottery while his residential address was given as Hope Cottage which was situated close by on the corner of Pipe Lane and Temple Back. His old premises at 124 Temple Street were subsequently taken over by the potter John Milsom who carried on the production of stoneware. It is possible that Duffett moved to Pipe Lane when he decided to concentrate solely on the manufacture of redware.

From 1826 the Temple parish rate books show Duffett was paying rates on three adjoining premises in Pipe Lane: a pottery, a yard and a dwellinghouse.

He had three sons and four daughters and he took two of his sons, John and Charles, as apprentices in 1822 and 1829 respectively.

On 14 June 1831 the Bristol Gazette noted the death, aged 50, of 'Mr John Duffett, of this city, highly respected by all who knew him'. In his will, written on 4 June, Duffett left all his moveable property to his wife Susannah. He left his 'messuages, tenements and premises with warehouses and buildings thereto belonging situate in Temple Backs, and also all stock and implements in trade' in trust to allow Susannah and their son John to use the premises without

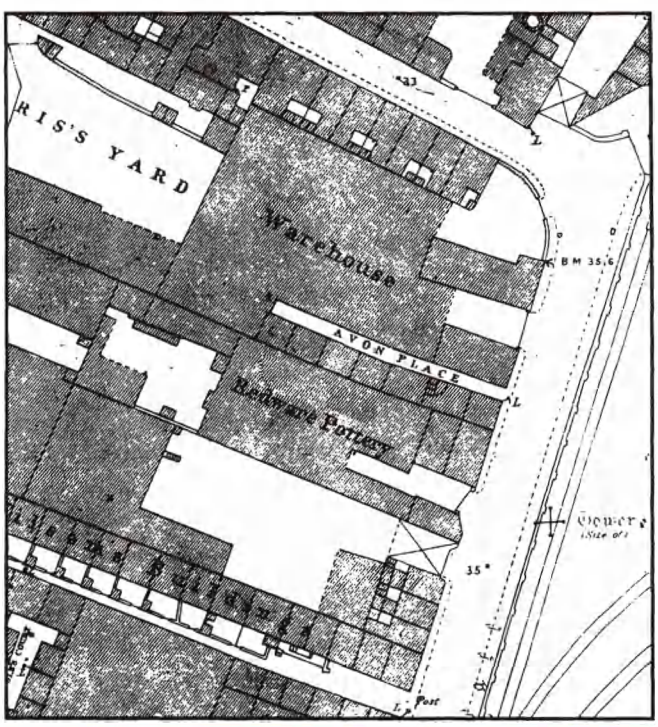


Fig.3 Ordnance Survey map 1883.

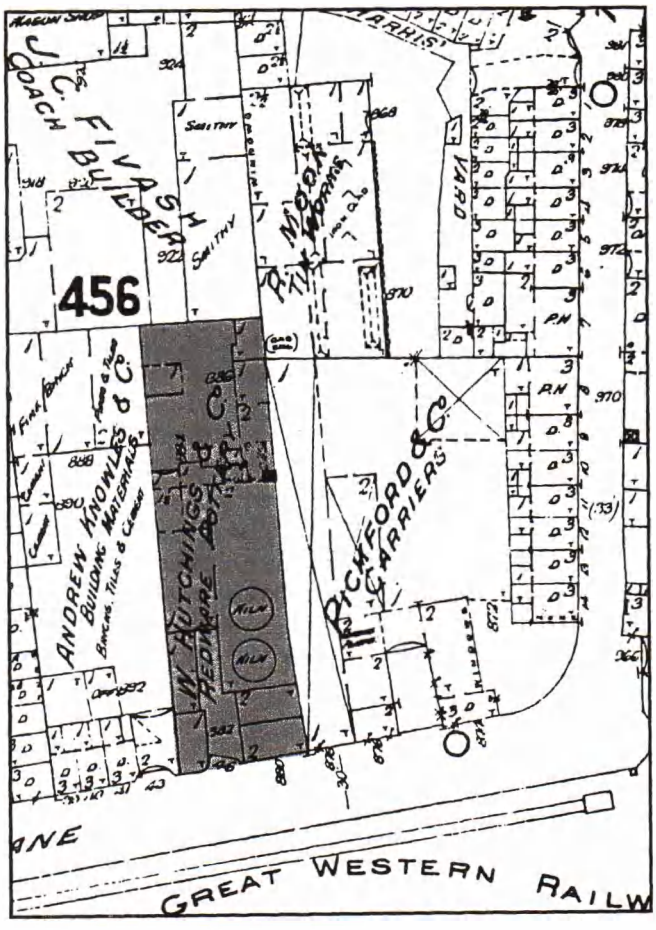


Fig.4 Goad's map, 1887.

paying rent. He 'desired that the said trade be carried on under the firm of Susannah Duffett and Son - the profits of the firm to go two-thirds to Susannah and one-third to John', and he asked that they should support his younger son Charles until he came of age.

From 1832 the street directories show the firm of S. Duffett and Son trading as redware potters until it was taken over by the younger son, Charles (then aged 28), in 1843. He carried on the business until it was sold in 1856 to William Hutchings who also had a pottery at Barton Hill and described himself as a redware, garden and chimney pot manufacturer. Later he was also a producer of bricks, tiles and water pipes with another factory at St Philip's Marsh. From 1891 the firm of William Hutchings and Son were listed as 'Manufacturers of all kinds of Garden and Fancy Pots, and Red Ware'. Their pottery in Pipe Lane closed in 1907.

The Bristol Presentment Books record a number of shipments of pottery exported under the names of Duffett and Hutchings. However, this is not a true reflection of the extent of their export trade as goods were normally shipped under the names of the merchants who made up the cargoes. In June 1838 J. Duffett exported 2 crates of earthenware to Waterford, in January 1839 Duffett and Company exported 2 crates of flowerpots to Dublin, in May 1861 W. Hutchings exported 1,608 pieces of redware to Jersey and Guernsey and in June 1863 W. Hutchings exported 2 crates of redware to Barbados.

In 1994 an evaluation trench 20m long by 4.5m wide was excavated through the site of the Pipe Lane Pottery (Fig.1), confirming that the pottery buildings had been completely removed during the early 20th century by the construction of the sidings and platforms of the railway goods yard. However, a stone-lined well (context 323), having an internal diameter of 1m, was uncovered. The well was filled with redware kiln debris (331, 332) which almost certainly came from the Pipe Lane Pottery.

The vessels showed signs of having been damaged during manufacture. The wasters were all of Bristol Pottery Type 336 with a red-buff body and a glaze varying from a deep red-brown through to a red-orange which turned yellow on over-firing.

A number of simple kiln supports were found with vessel rims adhering to glaze runs.

Illustrated vessels

Fig.5

1. Jug, glazed internally and over rim, neck and upper part of handle externally
2. Jug, glazed internally and over rim, neck and upper part of handle externally
3. Jug
4. Miniature jug, glazed internally and over rim, upper part of body and handle externally
5. Jug, glazed internally and over rim, neck and upper part of handle externally
6. Jar, glazed internally and over rim
7. Jar, glazed internally and over rim
8. Jar, glazed internally and over rim
9. Jar, glazed internally and over rim
10. Two-handled vase
11. Fragment of a basin with at least one 'dish-shaped' container with drainage hole applied internally to the rim. Possibly a wash-basin with integral 'soap-dish'.
12. Open-ended vessel, use unknown
13. Lid with simple knob handle, glazed
14. Shallow dish
15. Fragment of large jar or pancheon
16. Lid with simple knob handle
17. Shallow dish, glazed internally and over rim
18. Possible horticultural pot with drainage holes in its side just above base
19. Flowerpot with central hole in base
20. Moulded flower decoration for garden urn
21. Rim of garden urn with roulette applied decoration and applied moulded decoration in the form of bunches of grapes and vine leaves

Vessels not illustrated include fragments of flowerpots 124mm, 128mm and 130mm high, trays or dripping pans, pancheons with applied flat handles on rims, collanders and chicken feeders.

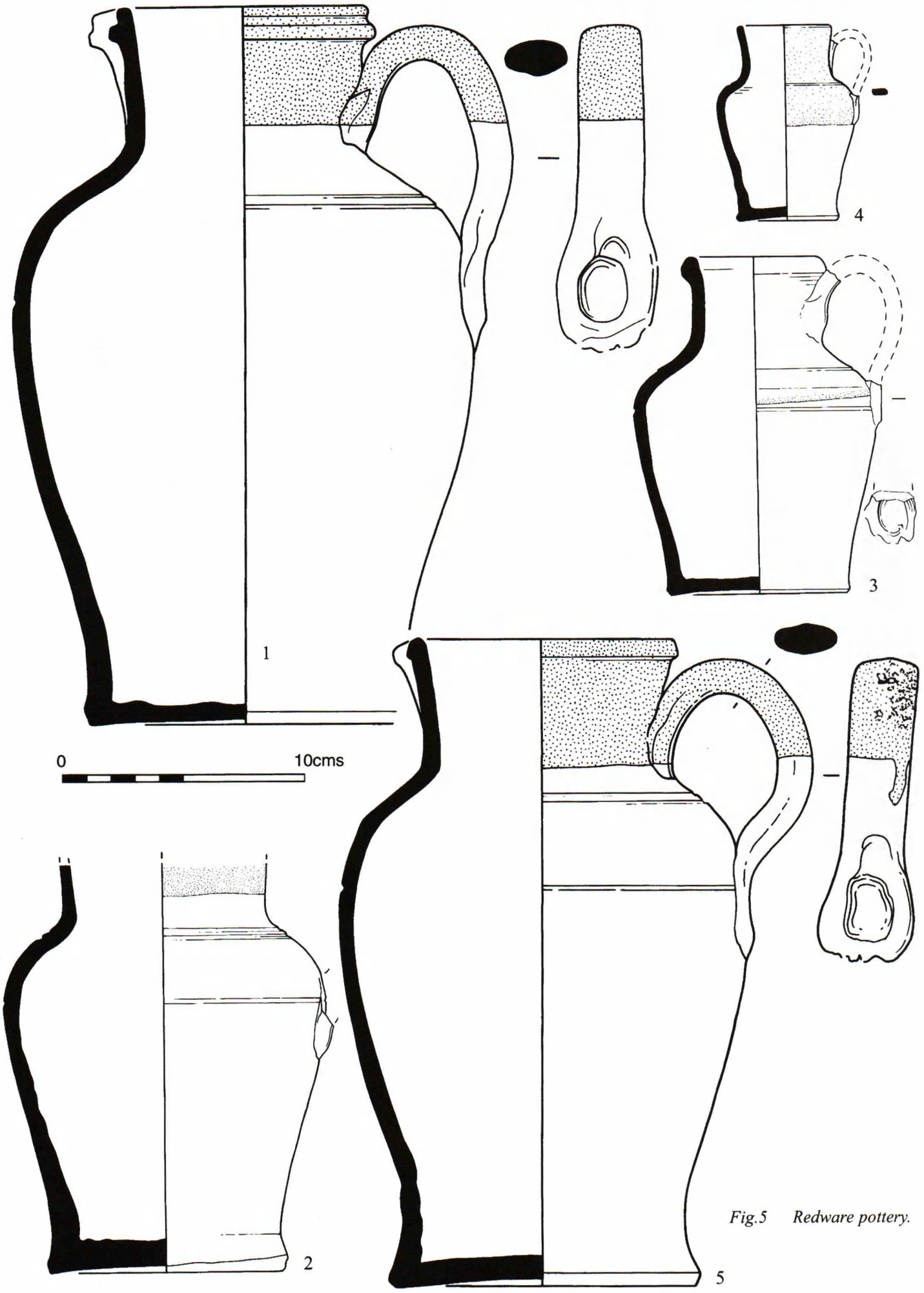


Fig.5 Redware pottery.

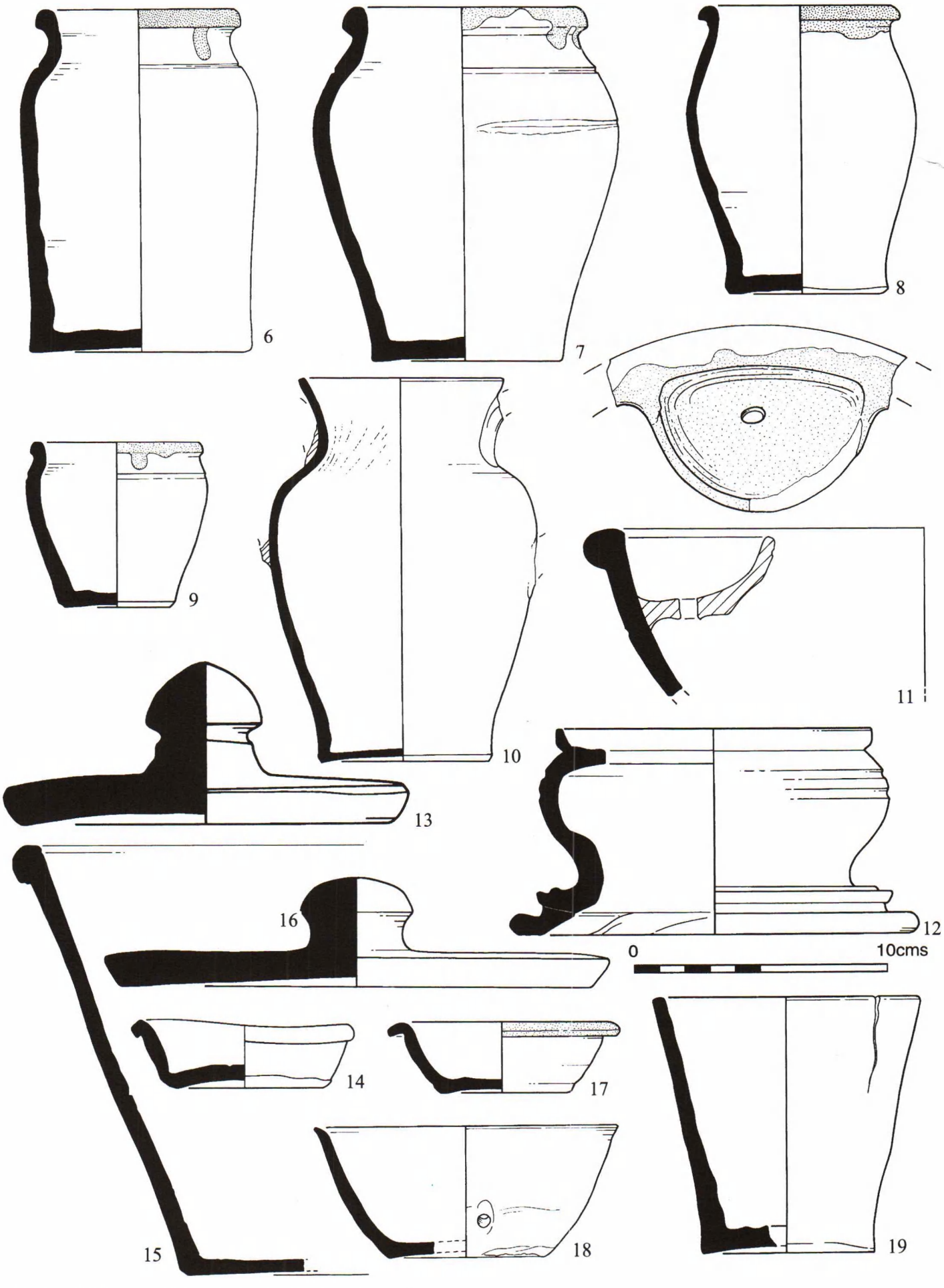


Fig.5 Redware pottery (continued), No.15 is 25% life size.

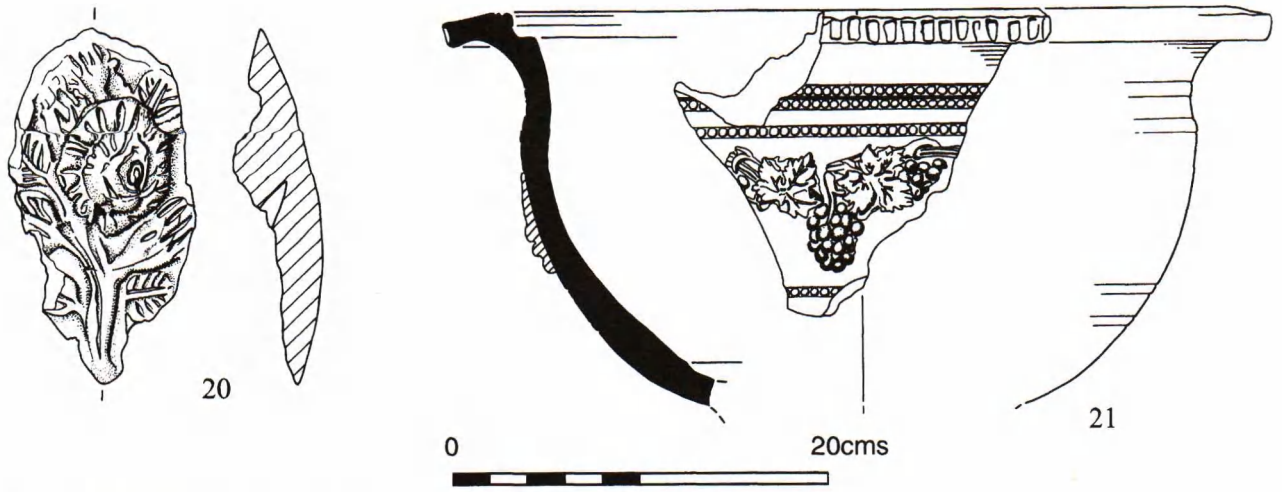


Fig.5 Redware pottery (continued).

CONCLUSIONS

The archaeological work at Temple Quay produced two groups of pottery kiln waste.

The 17th-century stoneware waste came from an archaeological deposit which probably lay within the building described in 1695 as a 'workehouse - intended for Pottmaking' adjoining Tower Harratz and built by the Bristol merchant Richard Champneys. The pottery operated for a short period between 1695 and about 1698 and almost certainly produced the earliest stoneware to be made in Bristol. The wasters consisted of domestic vessels known as 'gorges' and cylindrical saggars, both having forms similar to those being made at the Fulham pottery in the late 17th century.

The redware waste was made in the Pipe Lane Pottery which was owned by the Duffett family from 1817 to 1856 and by the Hutchings family until 1907. Redware pottery forms are difficult to date with accuracy as their utilitarian nature ensured that they remained in use over many years but those recovered from the well on the site of the pottery were probably made towards the end of the 19th century.

ACKNOWLEDGEMENTS

The excavations at Tower Harratz and on the site of the Pipe Lane Pottery were funded by the Bristol Development Corporation. Rod Burchill kindly undertook the analysis of the pottery fabrics and Ann Linge produced the illustrations.

REFERENCES

Documentary Sources

Bristol Record Office (BRO):

Temple Parish Rates: Lamp and Scavenging, Watch, Harbour
Apprenticeship Rolls
Orders for Binding Apprentices
Freedom Rolls
Poll Books
Temple Parish Registers
Will of John Duffett, 1831
ETD 00020
04335(8)
Rate: 9 Will. III c.10

Bristol Reference Library:

Evans Directory
Matthew's Annual Directory for the City and County of Bristol
J. Wright and Co's Bristol and Clifton Directory
Scammell's Directory
Bristol Gazette
Presentment Books

Public Record Office (PRO)

1851 Census Return
Port Book, Exchequer Series 190/1137/3

Published Sources

BaRAS 1994 *Archaeological evaluation and excavation at Quay Point, Temple Meads, Bristol.* Client Report BA/C077 (author R Jackson).

Green, C, 1999 John Dwight's Fulham Pottery. Excavations 1971-79. *English Heritage Archaeol Rep* 6.

Haselgrove, D, 1989-90 Steps towards English stoneware manufacture in the 17th century. *London Archaeologist* 6, 132-8, 152-9.

Haselgrove, D & Murray, J, 1979 John Dwight's Fulham Pottery 1672-1978. A collection of documentary sources. *J Ceramic History* 11.

Jackson, R & P and Price, R 1982 Bristol potters and potteries 1600-1800. *J Ceramic History* 12.

Pryor, S & Blockley, K, 1978 A seventeenth-century kiln site at Woolwich. *J Soc Post-Medieval Archaeol* 12, 30-85.

THE GARDENS AND GROUNDS OF CLEVE HILL HOUSE, DOWNEND, BRISTOL.

by James Russell

Cleve Hill House, at Downend in the parish of Mangotsfield, approximately 7 km north-east of the centre of Bristol, was demolished in 1930 and its grounds redeveloped for housing. A surprising number of garden features and estate buildings have however survived to the present day. One of these structures, a lodge with an unusual quatrefoil plan at 86 Downend Road, was discussed by Stewart Harding in an article in the *Avon Gardens Trust Newsletter* No 5 (Summer 1989) entitled "The Wizard's Lodge Rediscovered". Harding ascribed the design of the lodge to the eccentric polymath Thomas Wright, the so-called "Wizard of Durham" (1711-86), who is known to have worked at Cleve Hill in the 1750's. In October 2000 another garden building at Cleve Hill was recorded by Laurie Bingle and the present writer. This has prompted the more general re-examination of the landscape history of the estate which follows. Readers should note that the locations of buildings and features mentioned in the text are indicated by 8-figure National Grid references with the prefix ST.

Cleve Hill House (ST 6488 7717) was situated near the crest of a low escarpment running SW-NE, the cliff or bank which gives the place its name (Smith 1961, 99). To the west the ground drops away towards the Frome Valley, providing fine views across to Stoke Park and the Purdown ridge. The property seems to have been purchased and the house constructed around 1627 by William Player, a prominent lower landowner who was instrumental in the early development of the Kingswood coal industry (Jones 1899, 118). It was certainly in existence by 1653, when a survey refers to "Mr Player's mansion house & grounds called Cleave Hill" (Ellacombe 1881, 191). In Figure 1 an attempt has been made to reconstruct the environs of the house as they would have appeared around 1700. This is based largely on a contemporary sketch plan of "Mr Player's Manors .... in the Parishes of Mangotsfield & Bitton" which purports to date from 1750 but appears from internal evidence (such as the names of the landowners mentioned) to have been compiled some 30 or 40 years earlier (Ellacombe 1881, plate 11). The Cleve Hill estate lay on the convoluted northern boundary of Kingswood Chase, a former Royal hunting ground which by 1700 had been carved up for mineral exploitation by the Players and other local magnates. The gardens of the house were adjoined to the west by Bromley Heath, a corridor of common grazing land running southwards into the Chase itself, a vast open heath punctuated by quarries, coal-pits and scattered miners hovels. To the south-east a cluster of cottages surrounding the Downend Inn (now the Horseshoe) formed the nucleus of the present village centre of Downend.

Our knowledge of the original Cleve Hill House comes almost entirely from an engraving of c1710 by Johannes Kip (Atkyns 1712, plate facing 546; Fig.2). This shows a relatively modest and compact rectangular mansion, two storeys high below a multi-gabled attic. The main entrance front, only two bays wide with a central baroque doorway and small single-storey wings to east and west, faced southwards across a courtyard towards the present Cleeve Hill. Kip shows a grid of rectangular walled gardens to the west and north of the house, a service courtyard to the east and an avenue of trees running northwards towards Cleve Hill Farm (ST 6503 7743) a still-extant gabled structure omitted from Kip's illustration but almost certainly in existence by 1710. In the absence of corroborative pictorial evidence the accuracy of Kip's engraving is hard to estimate; while his depiction of the house is probably fairly reliable he appears to have considerably exaggerated the scale of the gardens, while his treatment of the surrounding roads and countryside is as usual demonstrably arbitrary and schematic.

Thomas Player, the last of his family to occupy Cleve Hill, died in November 1739, leaving the property to his nephew Charles Bragge. Bragge is a curiously elusive figure about whom few solid facts are readily ascertainable. Recent research by Nicholas Deas has however established that he was born around 1715, the some of William Brag(g)e and Elizabeth Player of Hatfield Peveril in Essex, and entered St John's College, Oxford in July 1733, at the age of 17 (Foster 1888, 151). He was thus about 24 years old at the time of Thomas Player's death; there may have been a brief delay before he gained full control of his inheritance since under the terms of his uncle's will the estate was to be held in trust for him by his aunt, Lucy Player, until he reached the age of 25 (Jones 1899, 120). At some point during this period of transition Cleve Hill House was extended and re-cased with new "show" fronts in the classical style to the north and west; both facades can be seen prior to Victorian modification in Storer's engraving of 1825 (Brewer 1825, plate facing 168; Fig.3). The new north front was three storeys high and seven bays wide with a three-bay centre topped by an elaborately sculptured pediment. The west front, which henceforward formed the main entrance to the house, was five bays wide with a slightly recessed three-bay

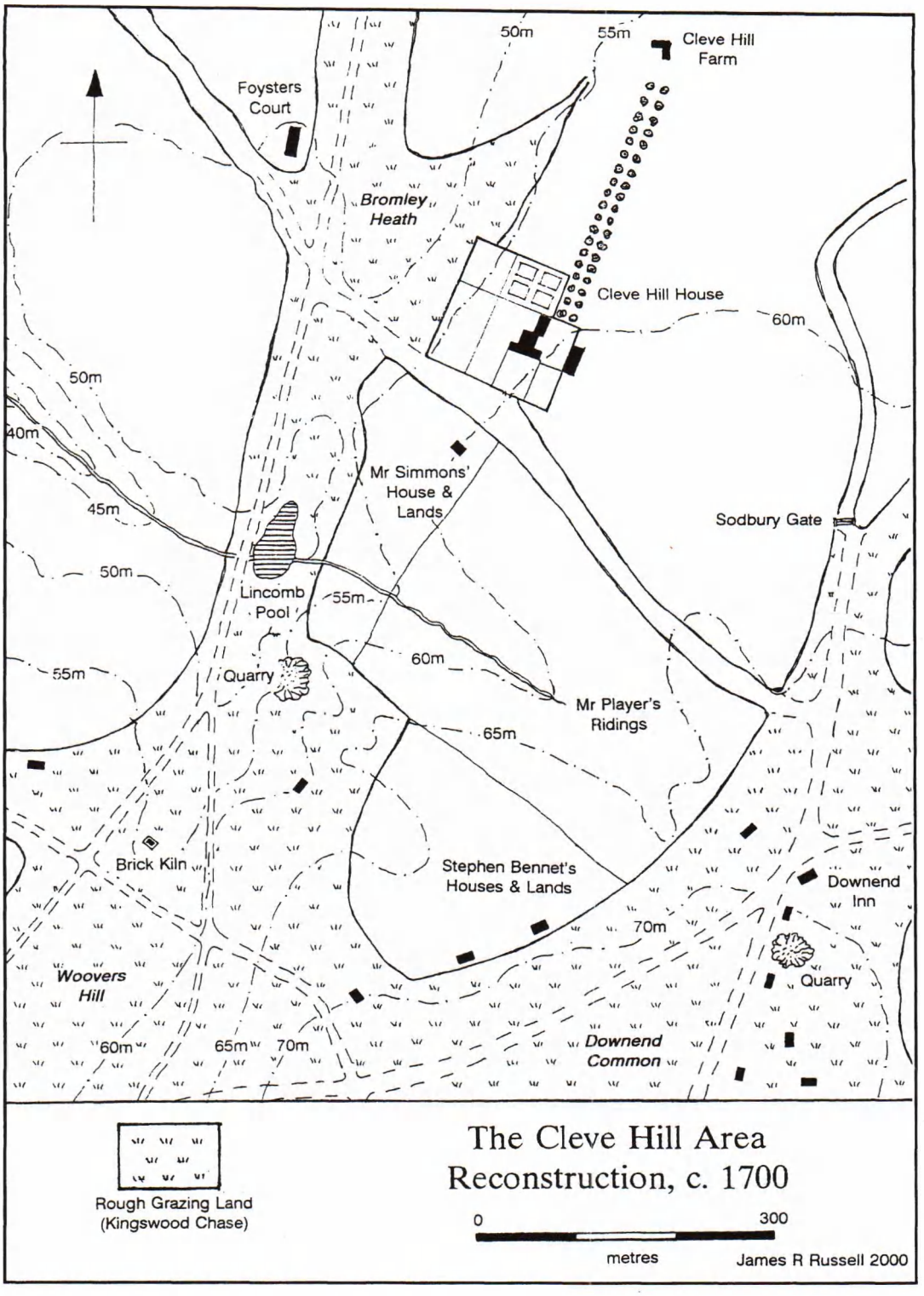


Fig.1 Reconstruction map of the area around Cleve Hill House c.1700.

centre. The projecting end bays had pediments supported by paired Corinthian pilasters, while the central entrance was framed by a plain pedimented doorcase. The old entrance front to the south was also re-faced and re-fenestrated, but in a much plainer manner (Kingsley 1992, Figure 58). Little information is available concerning the internal planning or decoration of the house after remodelling; it appears however that much of the 17th-century structure, with walls up to 9 ft (3m) thick, was retained (Jones 1899, 116).

It remains unclear whether all this work was instigated prior to 1739 by Thomas Player or during the 1740's by the young Charles Bragge. The architect responsible has also yet to be identified. The north front in particular displays marked similarities with the facades of Bristol town-houses

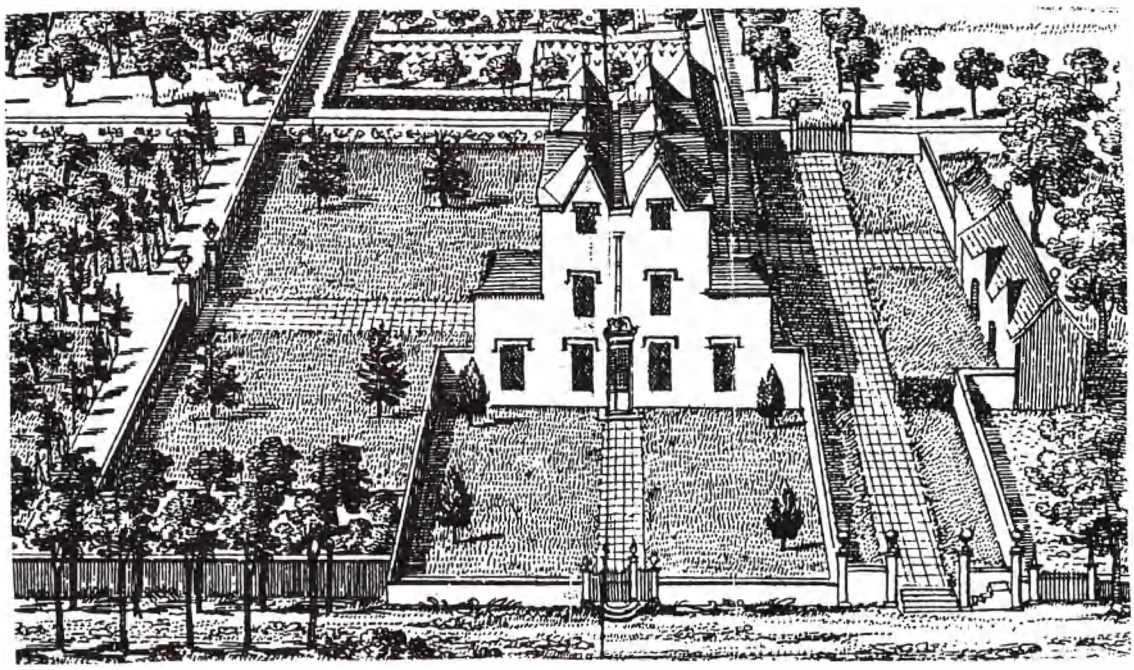


Fig.2 View of the original Cleve Hill House looking north, by Johannes Kip c.1710.

at 12 St James Barton (now demolished) and 68-70 Prince Street, all dateable to the period 1726-28 and attributed to John Strahan (Ison 1952, 161-4, Mowl 1991, 17-18). The work at Cleve Hill has indeed been assigned to Strahan by Dr Mowl, who has suggested (almost certainly mistakenly) that it pre-dates the Bristol houses (Mowl 1991, 14). A likelier candidate than Strahan (who died around 1740) is however the Mangotsfield mason John Greenway, who is known to have carried out minor alterations at Cleve Hill in 1723 (Kingsley 1992, 106; Gloucester Record Office D421 E66). It should be noted that there is little to support Nicholas Kingsley's assertion that the remodelled west front was "palpably" much later in date than that to the north (Kingsley 1992, 106-7); both west and north facades incorporated very similar segmental-headed windows of a type characteristic of Bristol buildings of the first half of the 18th century.

While a miasma of uncertainty still envelops the

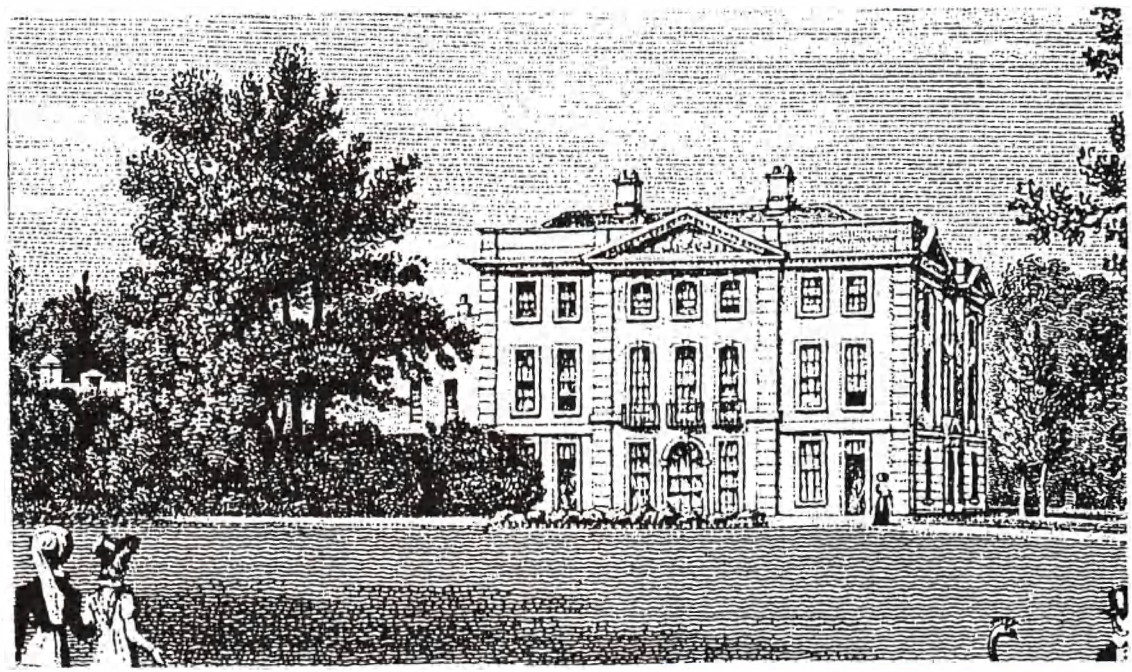


Fig.3 View of Cleve Hill House after early 18th-century remodelling, looking south, by J Storer, 1825 (Brewer 1825, plate facing 168).

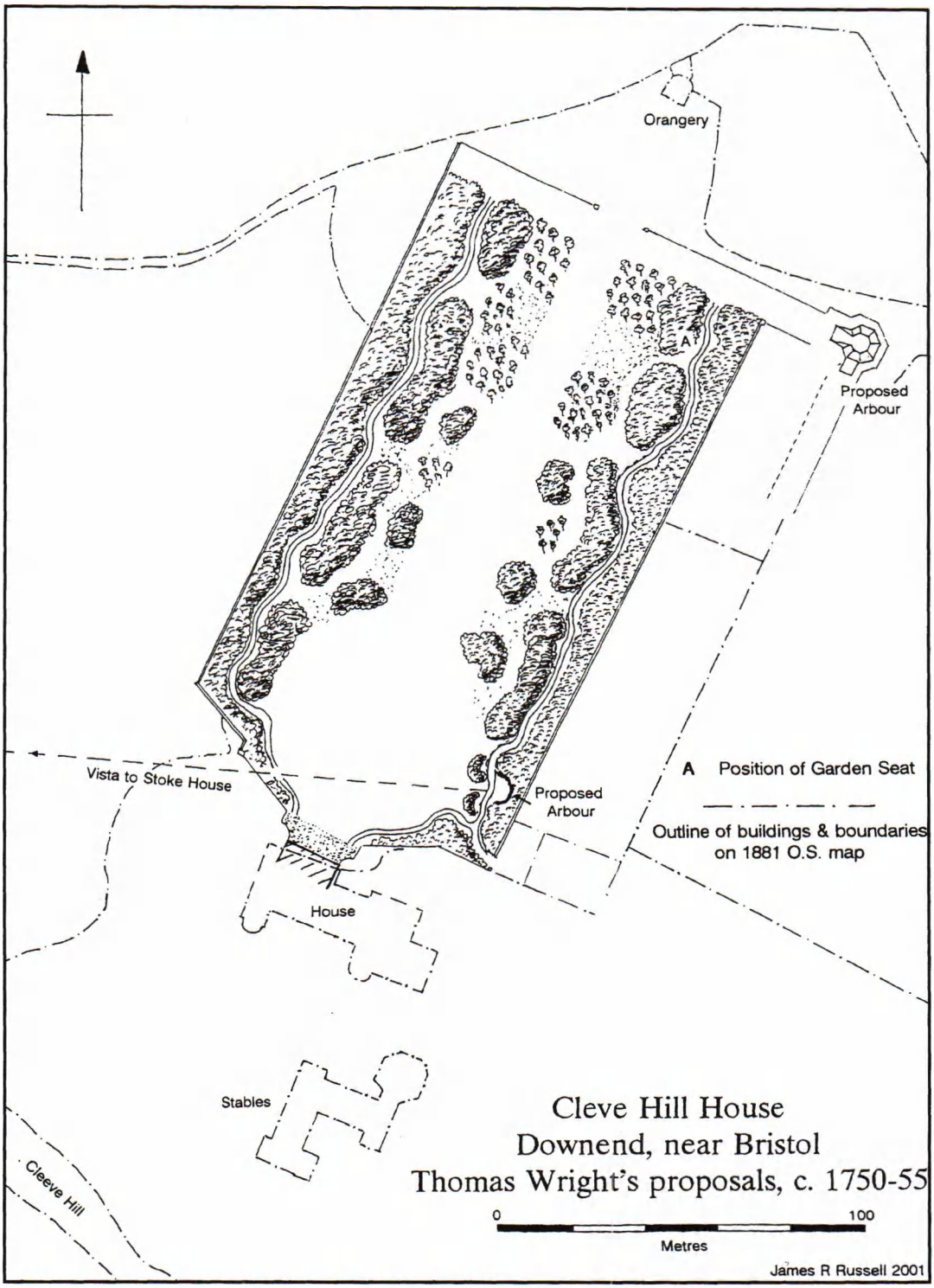


Fig.4 Thomas Wright's proposals for the north garden at Cleve Hill House, c.1750-55, based on his drawing in the "Lennox-Boyd" Album (Victoria & Albert Museum No.E3990-1983).

remodelling of Cleve Hill House the authorship and date of the gardens laid out to the north of the new mansion are less open to question. These were almost certainly created in the early 1750's, probably around the time of Charles Bragge's marriage to Anne Bathurst, which took place on 25 January 1752 (Jones 1899, 123). Bragge was on friendly terms with his near neighbour Norborne Berkeley of Stoke Park, and through him would have made the acquaintance of Berkeley's architect and gardening guru Thomas Wright, to whose books of designs for *Arbours & Grottoes* he subscribed in 1755. The Wizard of Durham s connection with Cleve Hill was first noted by Eileen Harris in her 1979 edition of *Arbours & Grottoes*. Wright's "Lennox-Boyd" album in the Victoria & Albert Museum includes a plan for "Mr Brag s garden at Cleve Hill, near Stoke"; this is accompanied in the album by drawings relating to the early

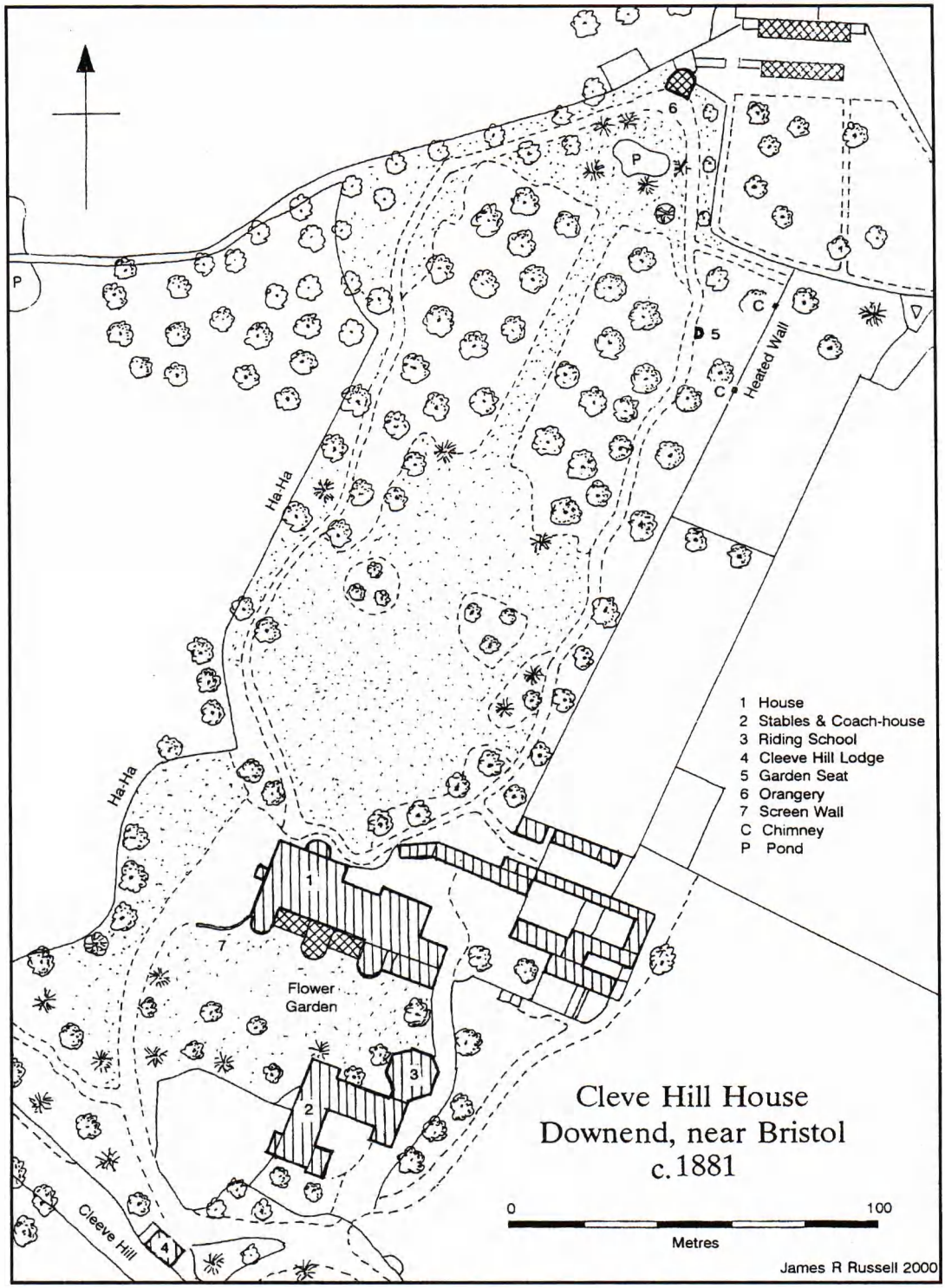


Fig.5 Plan of Cleve Hill House and gardens, based on 25" OS map 1881.

phases of Wright s work at Stoke around 1750 (V & A No E3990-1983; Lennox Boyd Album No 47). The plan is drawn to scale and can be shown to relate closely to the garden north of the house shown on the OS 25 inch map of 1881 (Figs.4 & 5). The garden layout as conceived by Wright covered a roughly rectangular area 600 ft (182m) long and 300 ft (91m) wide. Immediately to the north of the house he proposed a circular lawn 200 ft (60m) in diameter; beyond this stretched a funnel-shaped vista defined by gradually converging clumps of trees and bushes resembling the wings of a stage set. Along the eastern and western edges of the garden were further plantations traversed by sinuous paths. To the north-east of the main garden area the plan shows the ramped octagonal base of a projected summerhouse or "arbour" of the type depicted in Wright's 1755 design book. A second semi-circular arbour or exedra

was proposed for the south-eastern corner of the garden, close to the house, commanding a view across the circular lawn towards Stoke Park.

Comparison of Wright's proposed layout with the garden recorded on the 1881 OS map shows that the main elements of his design - the large lawn in front of the house and the vista beyond with its flanking plantations and sinuous perimeter paths - were carried out more or less as he intended, with minor variations of detail, although it is doubtful whether the two arbours included in his proposals were actually constructed. In execution the garden was extended northwards beyond the rectangle drawn by Wright to meet the boundary with Cleve Hill Farm. A major addition at the northern apex of the garden, terminating Wright's vista and probably designed by him as an afterthought, was an apsidal-ended orangery with a temple-like tetrastyle Roman Doric facade (St 6499 7740). This structure survives in good condition in the garden of "Yew Trees", one of the large detached houses in the "Cleeve Lawns" estate built over the site of Cleve Hill House after its demolition in 1930. The boundary walls of the 1750's garden have also been retained virtually intact to form the perimeter of the 1930's estate. The eastern boundary is a particularly massive and impressive structure of pennant sandstone some 4m high and over 170m long. The northern section of this wall was provided with a system of heating channels, ventilated by two square chimneys and fired from two stoke-holes, to enable fruit trees to be grown along its eastern side, which is here faced in red brick. The western boundary, by contrast, consists of a sunken wall or ha-ha , allowing unbroken views downslope across the Frome Valley. To the east and north-east of the main garden further surviving stretches of mid-18th-century walling define former nursery and kitchen gardens now occupied by Oakdale Court and Cleeve Court. The walls are pierced in at least three places (ST 6498 7718, 6502 7733 & 6499 7739) by doorways with simple gothic arches (Plate 1).

One further remarkable survival from the 1750's garden remains to be described. This is a covered seat which originally faced on to the eastern perimeter path of the garden but is now situated to the rear of a house in Cleeve Lawns (ST 6499 7732). The seat's existence was first noted some years ago by members of the Downend Local History Society; however, apart from one brief published reference (Harding & Lambert 1994, 39) it had received little further scholarly attention until October 2000, when by kind permission of the owner a detailed measured survey was undertaken by Laurie Bingle and the present writer, with the help of Ann Bingle and Ann Skelton (Fig.6). The seat is semi-octagonal in plan and measures 2.25m wide and just over 3m high. It is constructed of wood on a cement-rendered brick or stone base and is now roofed with zinc sheeting. It has an elegant west-facing pedimented facade with lattice-work panels, the distinctive design of which clearly relates it to the well-known pair of seats by William Kent, dating from around 1740, which flank the main vista at Rousham Park in Oxfordshire (Hussey 1967, 150, plate

Plate 1 Mid 18th century arched doorway in boundary wall, Cleeve Court (NGR ST 6498 7718).

219). The Cleve Hill seat is highly unlikely to have been the work of Kent himself, since he died in 1748, and while Thomas Wright may have had a hand in the design it does not appear on his plan for the garden. It seems more probable that Kent's pattern for the facade was widely circulated among building tradesmen and was adapted for Cleve Hill by the carpenter who actually constructed the seat. It may be noted that the Stoke Park building accounts for February 1749 record that a "Mr Pitts" was paid £7 0s 11d for making a "Kent Seat', presumably of this type (Gloucester Record Office D2700 Q/P 3/4/7).

Because of their relatively insubstantial construction very few wooden garden buildings have survived from the mid-18th century, at least in anything like their original condition. The Rousham seats, for example, seem to have been heavily restored, if not wholly rebuilt, during the present century. The Cleve Hill seat, however, appears despite a certain amount of patching and reinforcement to be still largely in its original state; it retains a number of refinements of detail, such as the internal modillion cornice and the bevelled or "fielded" edging of the external panels,

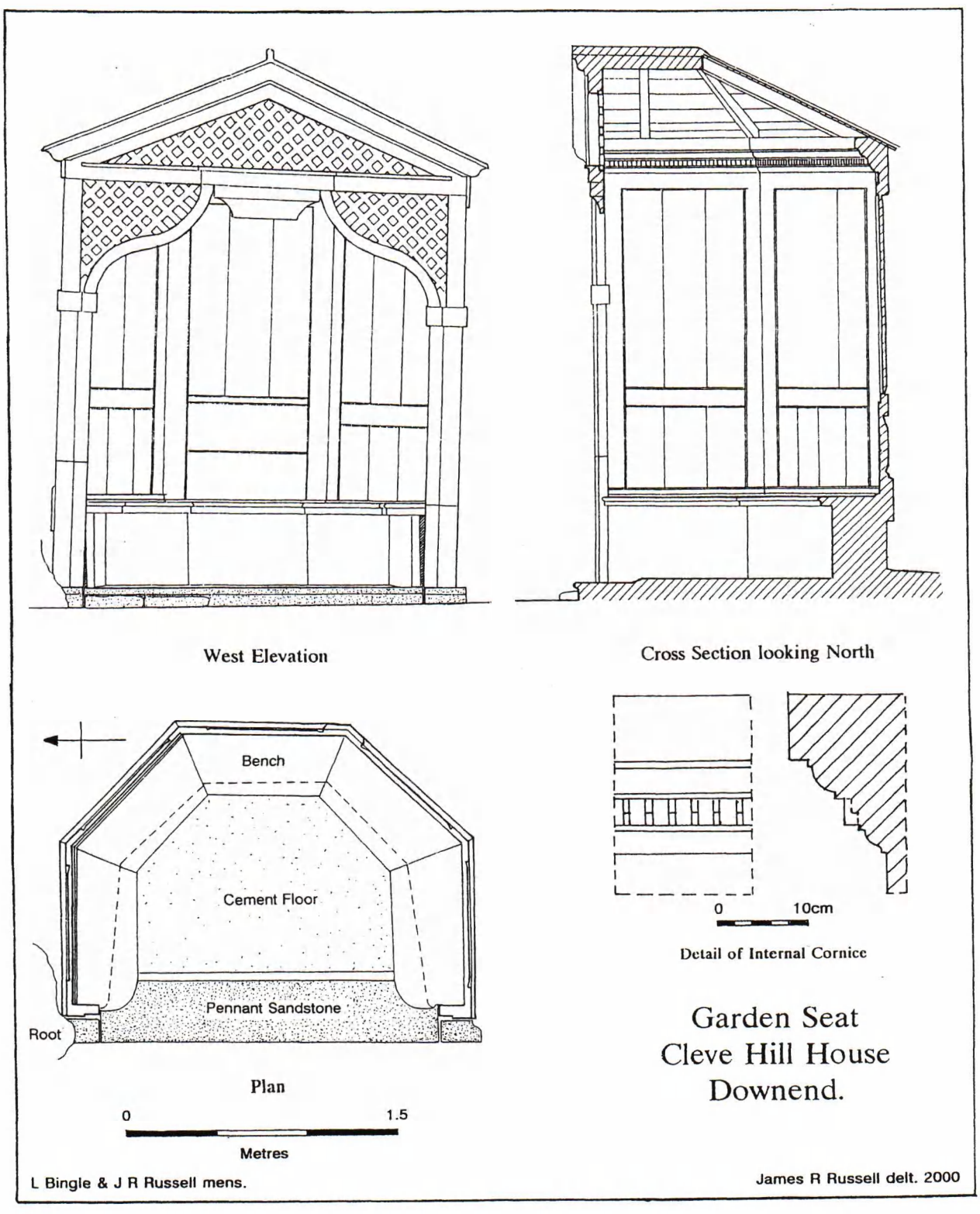


Fig.6 Measured drawings of mid 18th century garden seat.

which are absent from the Rousham examples. It is thus an exceptionally rare and precious survival. Although currently unlisted it is greatly appreciated by its present owner and is under no immediate threat in its secluded and well-tended garden setting. It has however developed, as the drawings show, a somewhat worrying 3 degree lean to the south, and it is hoped that conservation measures can be put in place in the near future.

Thomas Wright's involvement at Cleve Hill was probably limited to the north garden and its associated

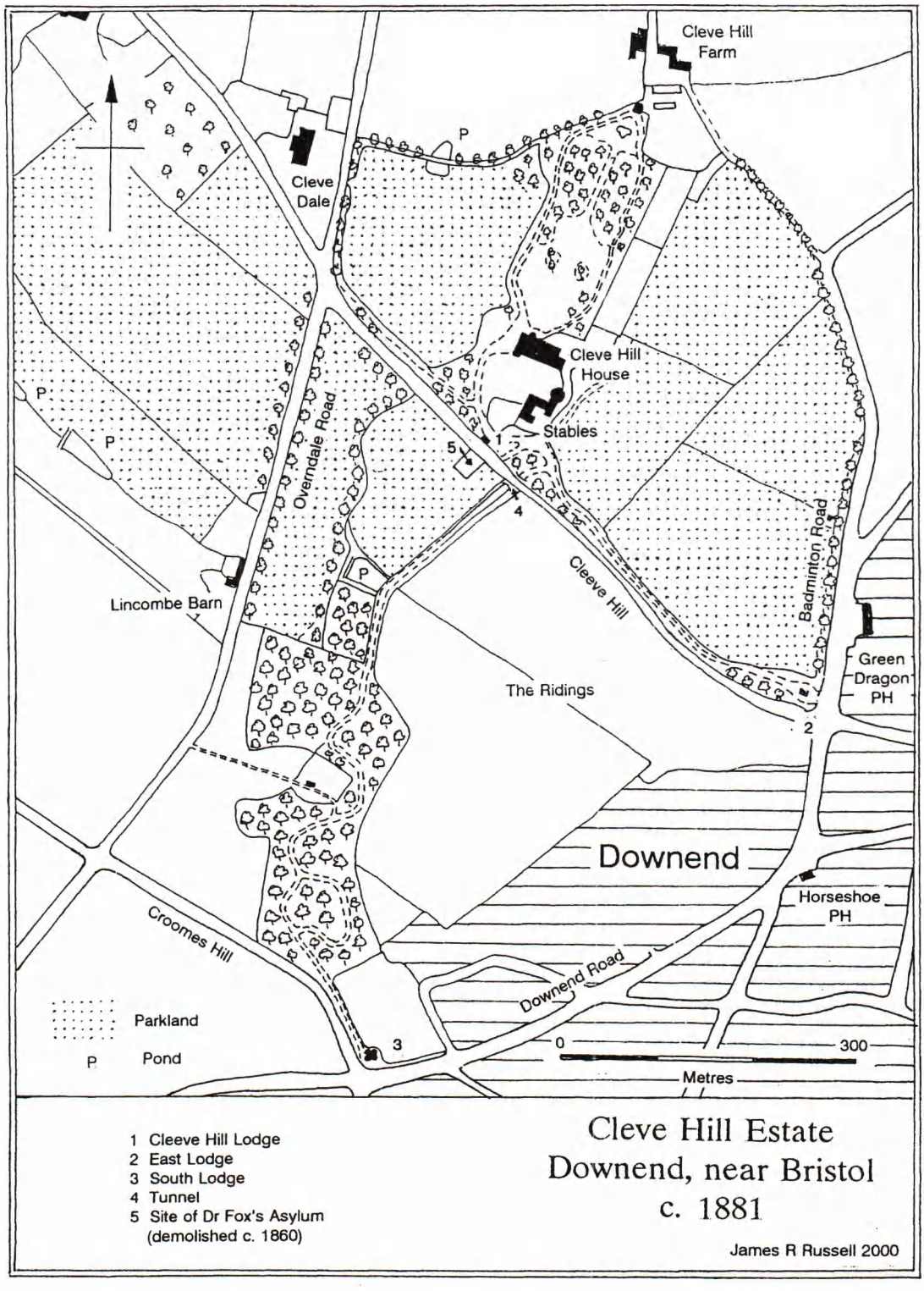


Fig.7 Map of Cleve Hill estate c1881 (based on OS 6" & 25" maps).

structures. It is tempting to see Wright s hand in two other surviving buildings in the vicinity - the former stable block and coach house, now converted to residential use and known as "Foxglades" (ST 6490 7711) and Lincombe Barn in Overndale Road (ST 6460 7698). Both have something of the flavour of Wright's chunky "utilitarian gothic" estate buildings at Badminton, especially Lincombe Barn with its decoration of imitation arrowslits. The Barn however does not seem to have formed part of the Cleve Hill estate during the later 18th century, belonging instead to William Jefferies (Jones 1899, 160, 223) and both structures may be no more than somewhat eccentric examples of the local vernacular.

As noted above, Charles Bragge remains a somewhat shadowy figure. His later years seem to have been clouded

by financial difficulties, the result of the collapse in 1768 of William Champion's Warmley Brass Company, in which both he and Norborne Berkeley had been unwise enough to invest heavily; in July 1768 Bragge declared himself completely ruined by the consequence of my former infatuation (Day 1973, 93). These misfortunes may well have forced him to adopt a lower social and political profile than he would otherwise have wished. Nevertheless towards the end of his life, in 1787-8, Bragge was able to initiate a major change in the landscape of Downend and Cleve Hill by obtaining a private Act of Parliament for the enclosure of some 262 acres of "common and waste grounds" in Mangotsfield Parish, the last tattered remnants of Kingswood Chase (Jones 1899, 125-7). The present network of broad, straight roads between Downend and Staple Hill is largely the product of this act of enclosure. By 1790, however, Bragge was dead, and his son of the same name, (1754-1831), a rising politician, lost no time in putting his inheritance up for sale in lots, Cleve Hill itself being purchased by John Gordon (Jones 1899, 127-30). In 1804 the younger Charles Bragge inherited the extensive Lydney Park estates from his mother's family, adopting the name of Bathurst in consequence. In the same year Cleve Hill was sold on by Gordon to Stephen Cave (1763-1838) a partner in the Bristol banking firm of Ames, Cave & Co (Cave 1899, 112-13, Jones 1899, 132).

In his 1899 history of Mangotsfield the Rev A E Jones was at pains to stress the major role played by the wealthy Stephen Cave and his son Daniel (1789-1872) in the development of the Cleve Hill estate (Jones 1899, 133, 135). There can be little doubt that a number of features and buildings attributed by Stewart Harding in his 1989 article to Thomas Wright and Charles Bragge actually date from the Cave era some 70 years later. For much of the 19th century the Cave family continued the gradual expansion and consolidation of the estate within the framework of roads laid out by Charles Bragge in 1788 (Fig.7). New areas of parkland screened by plantations were created, while two smaller houses to the north-west - Cleevewood (ST 6448 7750) and the now demolished Cleve Dale (formerly Foysters Court; ST 6470 7738) - were purchased as subsidiary residences (Jones 1899, 142-4). Another significant acquisition, made by Stephen Cave in 1815, was a house and block of land to the south of Cleeve Hill; this had been occupied in the early-18th century by a Mr Simmons (see Fig.1) and had then passed through a succession of owners, being used latterly as a lunatic asylum by Dr Edward Long Fox before he moved to Brislington in 1805 (Jones 1899, 133-5). Purchase of this strip of land enabled Stephen Cave to create a new approach to Cleve Hill House from the south, prefaced by the curious polygonal lodge on Downend Road (ST 6475 7652) referred to at the beginning of this article. In plan this consists of four octagons around a central chimney, the southern octagonal lobe being left partly open to form a porch (Plate 2). In recent months the present owner of the lodge has replaced its tiled roof with thatch, and installed a handsome timber

Plate 2 South side of polygonal lodge at 86 Downend Road, probably built for Stephen Cave c.1815. The thatched roof and timber arcade round the porch have been introduced as part of a recent "restoration".

arcade around the porch; while these "restorations" have undoubtedly greatly enhanced the appearance of the structure they are not, as far as the present writer is aware, supported by any pictorial or documentary evidence.

From the Downend Road Lodge Stephen Cave's new drive, following the crest of the escarpment, passed northwards in a series of convoluted curves through an area which until 1788 had been an unenclosed corner of Kingswood Chase, extensively quarried for pennant sandstone. The undulations left by the quarrying, now partly masked by new plantations, would have created a ruggedly "picturesque" effect. It then traversed the eastern edge of the property purchased in 1815 before plunging in a tunnel beneath the Cleeve Hill roadway (filled in after 1920) to emerge close to the house. Here it was joined from the east by another new drive running through a belt of trees along the northern side of Cleeve Hill from a second lodge (now demolished) on the corner of Badminton Road (ST 6515 7687). A third lodge (ST 6485 7710) gave direct access to the house from Cleeve Hill; a 1938 photograph of this, taken shortly before its demolition (Downend LHS 1985, plate 35) shows a plain gabled structure enlivened by an elaborate polygonal chimney clearly inspired by John Nash's Blaise Hamlet of 1810-12. Influence from the Blaise Castle estate is also discernable in the south carriage drive; in planning its serpentine layout, calculated to provide the susceptible visitor with a *frisson* of pleasurable anticipation as well as an exaggerated impression of the scale of the estate, Stephen Cave seems to have learnt valuable lessons from Repton's Coombe Hill drive at Blaise, laid out in 1798-99.

On arriving at Cleve Hill House a visitor in the 1820's would not have been disappointed. Brewer, writing in 1825, notes that "the good taste of a recent period has added greatly to the attractions and comfort of this elegant abode";

he praises the "correctness of judgement" with which the 10 acres of gardens and pleasure grounds had been laid out, and draws attention to "the hot houses and conservatories ... on an extensive scale" and a "spacious aviary" (Brewer 1825, 169-70). Another amenity almost certainly added by Stephen Cave, though not specifically mentioned by Brewer, was the remarkable riding school attached to the stables south-east of the house (ST 6492 7713); octagonal without and circular within, some 12m in diameter, it had a conical roof structure supporting a central glazed lantern, clearly visible in the engraving by Storer (Fig.3) accompanying Brewer's description (Jones 1980). In 1991 the structure was gutted and a small house with a courtyard garden was ingeniously inserted within its circular shell (*Bristol Observer*, 22 February 1991, 15).

After his father s death in 1838 Daniel Cave made various somewhat ill-judged alterations to Cleve Hill House in an overblown early Victorian baroque idiom, adding a two-storey bay window to the centre of the north front, a projecting porch and window balustrades to the west (entrance) front and a ponderous clock tower to the south-east service wing (for photographs of the north and west facades after modification see Fisher (no date) plates 79-80). Along the south front a row of conservatories was constructed facing on to a flower garden with elaborate carpet bedding, depicted in a water colour of 1854 (Kingsley 1992, Figure 58). Shielding this garden from the carriage drive to the west was a pretentious sculptured screen wall punctuated by large urns.

Towards the end of the 19th century the Cave family produced its own professional architect, Walter Frederick Cave (1863-1939); a pupil of A W Blomfield, he developed a varied and extensive practice centred on London and the Home Counties (Gray 1985, 137-8). He also produced a number of buildings for the family's other estate at Sidbury Manor near Sidmouth in South Devon (Cherry & Pevsner 1989, 733-4). Around 1890 he designed a row of gabled cottages for Cleve Hill estate workers in an extremely attractive and accomplished Arts & Crafts manner strongly influenced by the work of Voysey; these are still to be seen on the east side of Badminton Road (ST 6522 7708). By now, however, the Caves, while maintaining their paternalistic role as *de-facto* squires of Downend, were actually spending much of their time at Sidbury Manor. Cleve Hill ceased to be occupied by the family after 1905; in September 1920, following wartime use of the house as a hospital, the whole estate was sold and split into lots for redevelopment. Although, as we have seen, many features of interest have subsisted to the present day, the current multiple ownership of the area renders investigation difficult, and it seems likely that this "lost domain" has yet to reveal all its secrets.

ACKNOWLEDGEMENTS

The writer is grateful to Laurie Bingle for prompting him to undertake this fresh research into the history of Cleve Hill as part of the Avon Gardens Trust's review of historic gardens in Kingswood & South Gloucestershire, and for help and encouragement throughout. Thanks are also due to Ann Bingle and Ann Skelton for help with the survey of the 1750's garden seat (and to the owner for allowing the work to be carried out), to Nicholas Deas for generously providing details of his valuable and painstaking research into the genealogy of the Player, Bragge and Bathurst families, to David Evans for making available extracts from the South Gloucestershire Sites & Monuments Record and to the Victoria & Albert Museum for supplying a photograph of Thomas Wright s garden plan.

BIBLIOGRAPHY

Atkyns, R, 1712 *The Ancient & Present State of Gloucestershire.*

Brewer, J N, 1825 *Delineations of Gloucestershire.*

Cave, C H, 1899 *A History of Banking in Bristol.*

Cherry, B and Pevsner, N, 1989 *The Buildings of England; Devon.*

Day, J, 1973 Bristol Brass: *A History of the Industry.*

Downend Local History Society 1985 *Mangotsfield Picture Past.*

Ellacombe, H T, 1881 *History of the Parish of Bitton.*

Fisher, J and D, *Fishponds, Staple Hill & Downend on Old Postcards*

Foster, J, 1888 *Alumni Oxonienses 1715-1886* (Vol 1)

Gray, A S, 1985 *Edwardian Architecture; A Biographical Dictionary.*

Harding, S, 1989 The Wizard s Lodge Rediscovered. *Avon Gardens Trust Newsletter* 5 (Summer 1989) 14-16.

Harding, S and Lambert, D, (ed) 1994 *Parks & Gardens of Avon.*

Hussey, C, 1967 *English Gardens & Landscapes 1700-1750.*

Ison, W, 1952 *The Georgian Buildings of Bristol.*

Jones, A E, 1899 *Our Parish; Mangotsfield.*

Jones, P, 1980 *The Riding School on the Cave Estate, Downend.*

Kingsley, N, 1992 *The Country Houses of Gloucestershire* Vol 2 (1660-1830).

Mowl, T, 1991 *To Build a Second City; Architects & Craftsmen of Georgian Bristol.*

Smith, A H, 1961 *Place Names of Gloucestershire* (Vol 3).

EXCAVATION OF A CLAY TOBACCO PIPE KILN AT TEMPLE QUAY, BRISTOL

by Peter Insole and Reg Jackson

INTRODUCTION

Bristol and Region Archaeological Services (BaRAS) were commissioned by Churngold Remediation Ltd to carry out an archaeological watching brief during groundworks on Plot 2A, Temple Quay, Bristol (NGR ST 59513 72630; Fig.1). The fieldwork was undertaken during March and April 2000 and was intended to identify and record features of archaeological and historic importance prior to their removal by the construction work.

Of the many post-medieval structural remains identified during the watching brief, the most notable were the remains of an early 20th-century clay tobacco pipe kiln operated by the firms of Corcoran and Company and the Bristol Clay Tobacco Pipe Manufacturers Ltd on Tower Street from around 1903 to 1911. The recording of the kiln and its associated clay tobacco pipes are the subject of this report.

The finds and paper archive generated by the fieldwork will be deposited at Bristol City Museum and Art Gallery with the Accession Number BRSMG: 2000/14.

THE SITE LOCATION AND BACKGROUND

Temple Quay is the name given to the redevelopment site lying immediately to the west of Temple Meads railway station. The area consists of individual plots for business development and has been the subject of several pieces of archaeological fieldwork, including excavations on the line of the Portwall and Tower Harratz (BaRAS Report Nos. BA/C077, BA/D198, 307/1997, 453/1998, 494/1998 and 617/2000). Archaeological monitoring of the remediation and construction work on the various plots has been going on since 1998.

Plot 2A lies in the centre of the Temple Quay redevelopment site and is bordered on the west by Temple Way, south by the former basement of the 1920s goods shed, east by the former Pipe Lane and north by Temple Back. From the 18th century until the 1920s the area was occupied by properties to the north of Tower Street, south of Temple Back (or Commercial Road) and west of Pipe Lane (formerly Back Avon Walk). These properties were demolished in the 1920s for the rebuilding of the Temple Meads goods shed. Recently the land has been an open area used for car parking after the goods shed's demolition in the early 1980s. A full documentary history of the site can be found in 'Temple Quay, Bristol: An Archaeological Desk-based Assessment' (WS Atkins 1999).

The underlying stratigraphy of Temple Quay consists of up to 3m of post-medieval made ground (largely industrial waste such as ash and rubble) overlying alluvial silts and clays. The present ground surface lies at approximately 10m above Ordnance Datum (aOD).

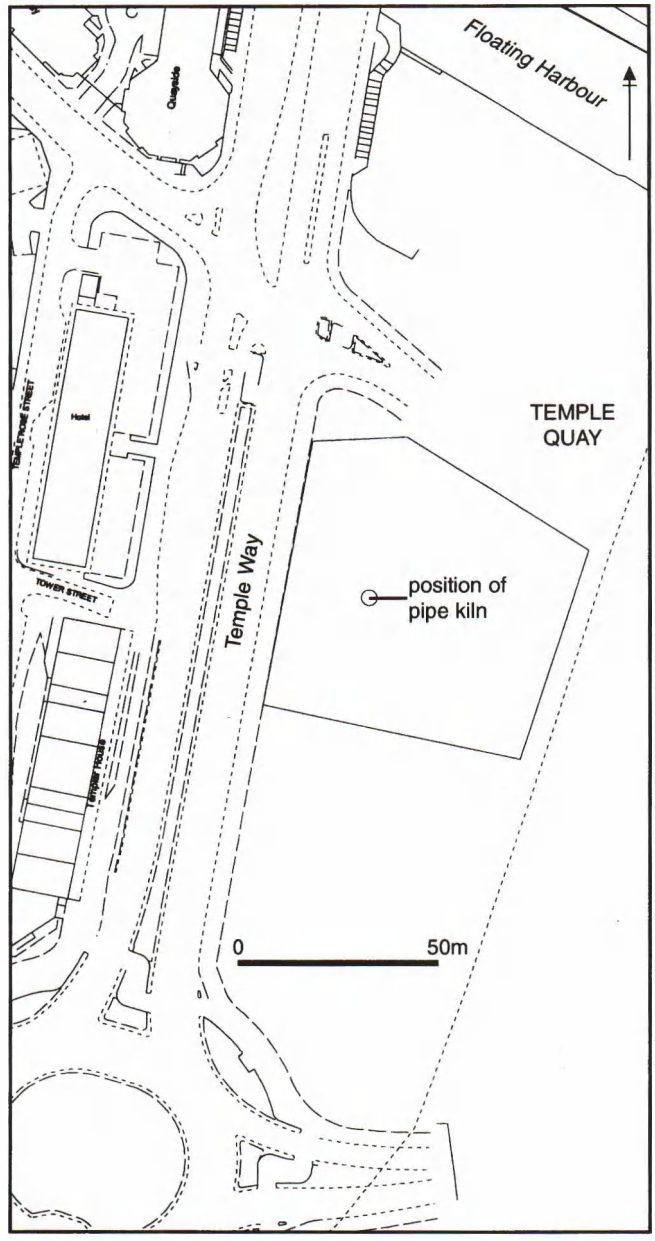


Fig.1 Location of the pipe kiln at Temple Quay.

A mechanical excavator carried out the ground reduction of Plot 2A to a depth of 9.2m aOD to enable the construction

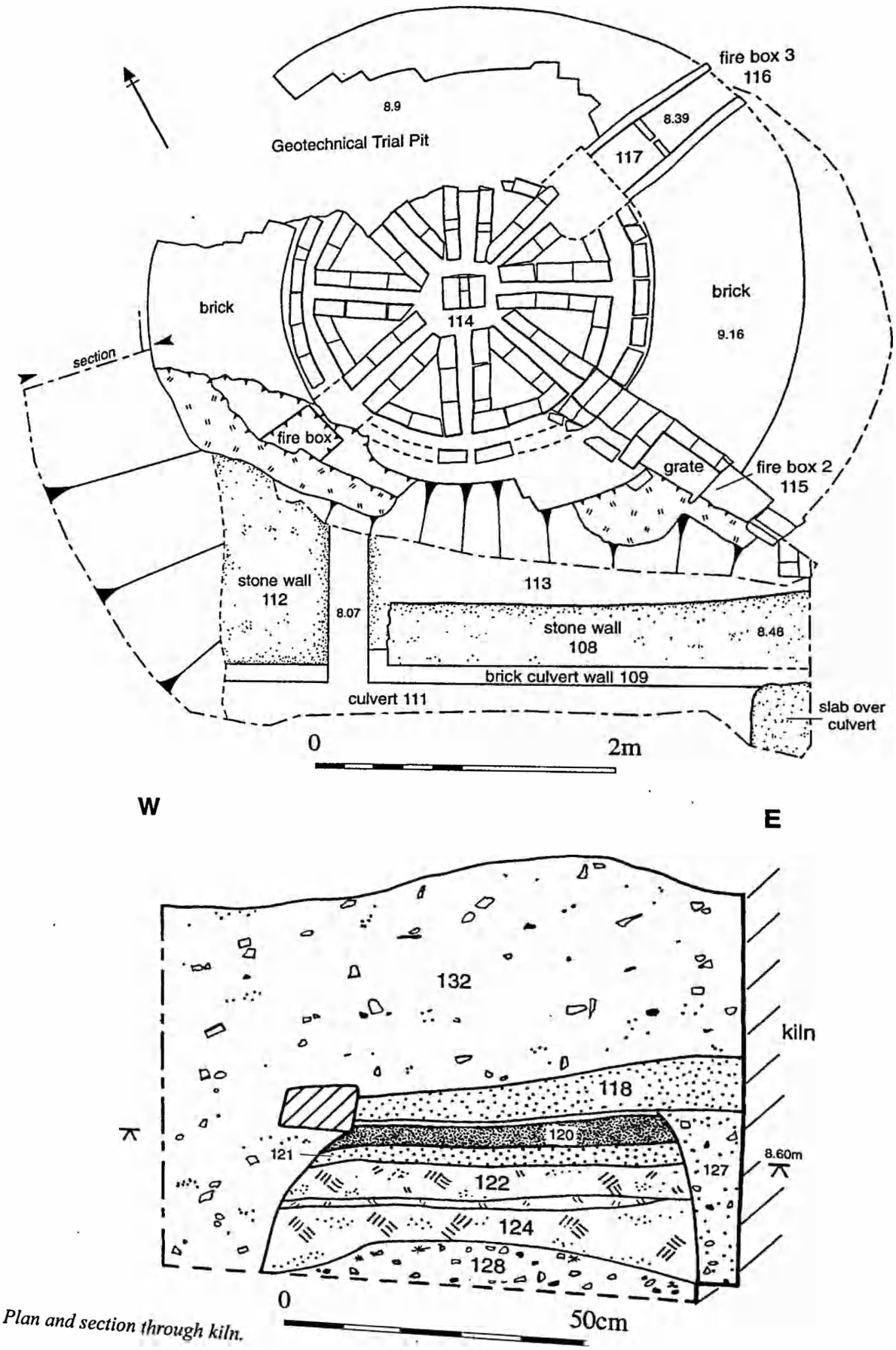


Fig.2 *Plan and section through kiln.*

Plate 1 View of the pipe kiln.

of a basement for the proposed office building. This removed modern concrete and demolition rubble and revealed the brick structure of a clay tobacco pipe kiln (Fig.2). Immediately to the south of the kiln the ground was reduced further to remove contaminated material, revealing the south side of the brick structure.

The kiln was then cleared of rubble by hand and recorded. The surviving fireboxes were excavated and the associated clay tobacco pipes recovered enabling a type series to be established.

THE KILN

The base of the kiln survived to a height of 0.5m and consisted of approximately ten courses of bricks bonded with a black ash mortar. The kiln was sub-circular in plan having a 4.4m east-west diameter and a 4m north-south diameter (Fig.2 ; Plate 1)

The central 2.4m diameter area of the kiln consisted of a 'cartwheel-like' arrangement of eight flues radiating from a central square of bricks and linked by an outer circular flue. Each alternate radiating flue apparently led to a firebox, although only three were present, a probable fourth in the north-west area of the kiln having been removed by a recent geotechnical pit. None of the fireboxes were complete; the best example (firebox 2) contained an *in situ* iron grate 200mm above and in front of the remains of a brick floor. Firebox 3 was complete, although missing the grate, and was filled to a depth of 0.7m with black ash and clinker containing a large number of clay pipe fragments. The machine excavation of the contaminated material adjacent to the south side of the kiln had largely removed firebox 1, although the rear of the box was still visible.

The construction trench for the kiln (context 129) had truncated layers of black ash and lime mortar (120, 122, 123, 124 and 128) and was cut from 8.8m aOD, a similar height to that of the brick floor surface (Fig.2 section).

The kiln had been constructed adjacent to an east-west wall (108) and directly over the north-south return of this wall (112). These walls were constructed of roughly hewn Pennant sandstone bonded in white mortar and were associated with a small brick culvert (109).

Directly overlying the kiln was a layer of brick rubble (132) indicative of the demolition of the kiln.

The traditional method of firing clay pipes was in a muffle kiln: that is, a chamber of refractory material in which the pipes were stacked, which was built within the furnace and ensured that the pipes could be heated out of direct contact with flames or other products of combustion. Muffle kilns were still in use into the early 20th century but from around the middle of the 19th century were largely replaced by circular, open flame, multi-flued, updraught kilns of the type found at Temple Quay. In these the pipes were fired within separate saggars stacked inside the kiln.

The earliest archaeological assemblage in the United Kingdom identified as containing pipe saggars, and therefore implying the use of open flame kilns, is that from Bath Road, Bristol which was deposited sometime in the 1850s and derived from Ring's pipe manufactory on Temple Back (Price *et al* 1984). The earliest documentary evidence is a map, surveyed in 1852, showing two kilns in a yard at

Tweedmouth, one with three and the other with four fire mouths - strongly suggesting open flame practice there at that time. Later open flame kilns are known from Limerick, Leith, Broseley and Nantgarw (Peacey 1996, 179).

The Temple Quay kiln most closely resembles in size and design one at Southorn's factory in Broseley, a site known to have been used for the manufacture of pipes since 1881, first by Rowland Smitheman and after 1923 by the Southorn family. The Southorn's kiln is still standing and was built as an updraught bottle kiln with four fireboxes, although it was later converted to a downdraught design which involved the alteration of the internal sunken flues and the erection of a freestanding square chimney (Peacey 1996, 114, fig.66). In contrast, at Temple Quay the original arrangement of four fireboxes linked by internal flues survived until the kiln went out of use.

THE OWNERS OF THE PIPE FACTORY

The first reference to a pipe factory in Tower Street was contained in J. Wright & Co's 'Bristol and Clifton Directory' of 1903 when the premises were occupied by the pipemaking firm of Corcoran & Co. (A.J. Veale).

From 1887 to 1890 Thomas John Corcoran had been the landlord of the Swan public house in New Street, St Philip but between 1890 and 1891 he was also listed in Wright s Directory as a pipemaker at the same address. In 1892 he moved his pipemaking business to 14 Lamb Street, a property just vacated by the pipemaker William Pring. Corcoran advertised that he produced 'Irish Straws & Meerschaum Patterns' at one shilling and sixpence per gross, 'Assorted Cuttys' at one shilling per gross and also a 'Large variety of fancy pipes'. He offered to stamp names and addresses (often of public houses and hotels) on his pipes at a charge of two pence per gross for best pipes for orders of four gross and upwards, the rubber stamp being supplied free of charge.

Some time between 1899 and 1903 Corcoran moved to Tower Street and entered into partnership with A.J. Veale.

Corcoran built his kiln in a small property at the rear of Poole's Court, off Tower Street. The 1902 Ordnance Survey map (showing a similar layout of buildings to the First Edition 1:500 OS plan, 1883) and archaeological evidence shows that prior to the kiln's construction the property had been two separate buildings that were amalgamated by the demolition of the dividing wall (context 112 and Fig.2). It is unclear whether the kiln stood in a yard, or roofed structure.

Entries in the Tobacco Trade Review show that in April 1902 a County Court judgement for £14 4s 2d was awarded against Corcoran and his partner and on 1 June 1903 it recorded that the partnership between Corcoran and Veale, trading as Corcoran & Co., was dissolved. Corcoran subsequently emigrated to America.

The Tobacco Trade Review for 1 November 1904 noted the registration of a new company, the Bristol Clay Tobacco Pipe Manufacturers Association. Its objects were: 'To carry on the business of manufacturers and dealers in clay tobacco

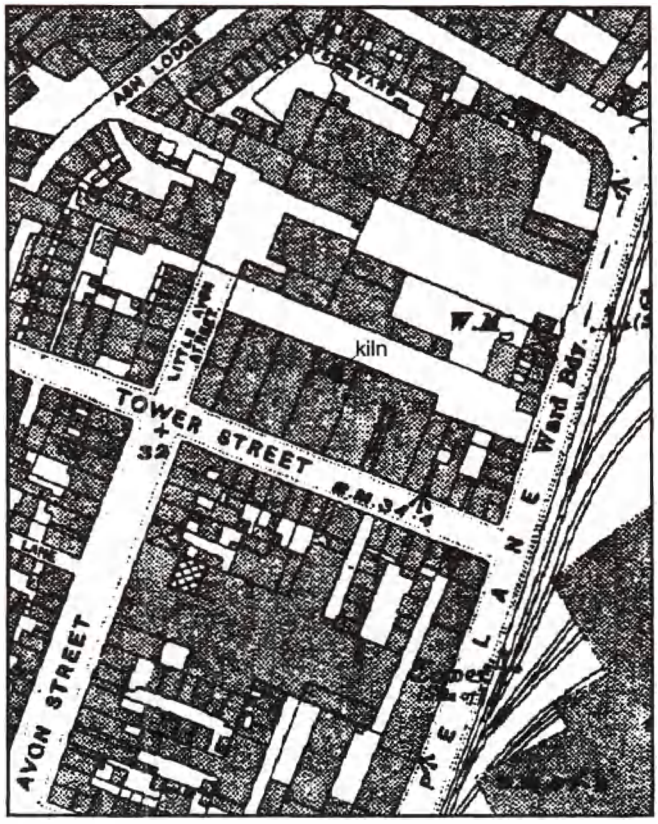


Fig.3 The 1918 Ordnance Survey map showing position of the pipe kiln.

pipes, glass, china and earthenware manufacturers, makers and vendors of bricks, tiles, pipes, corks, labels, bottles and flagons of all kinds etc., and to adopt an agreement with J.W. Bobbett for the acquisition of the business carried on at Tower Street, Temple, Bristol as the Bristol Clay Tobacco Pipe Manufacturers'.

Wright's Directory shows that Bristol Clay Tobacco Pipe Manufacturers Ltd occupied the Tower Street factory, previously owned by Corcoran & Co, from 1905. Very little is known about this firm and it has not been possible to identify those people involved in its ownership.

On 23 August 1907 a Walter Lewis Conway, aged 38, was charged with having appropriated to his own use various sums of money belonging to the 'Bristol Tobacco Pipe Company'. He was a traveller whose job was to go to South Wales soliciting orders for pipes.

The pipe factory was last listed in Wright's Directory in 1911 and we must assume that it closed in that year or early in 1912.

By the time of the 1918 Ordnance Survey plan, surveyed in 1912 (Fig.3), Poole's Court had been replaced by a rectangular building and in the area of the kiln stood a smaller building, part of which (wall 108) was identified during the excavation adjacent to the kiln. Evidence from Wright's Directory suggests that the property was vacant until demolished for the goods shed extension in the 1920s.

THE CLAY PIPES

The excavation of the kiln produced 33 distinct clay pipe types and these are described in the type series below. Most of these came from the backfilled fireboxes - especially firebox 3, context 116 - with the remainder from the layer of demolition rubble (132) overlying the kiln. The contents of the fireboxes are likely to be the result of the clearance of the kiln and property when the manufactory closed in 1911 and, as such, we do not know what proportion these pipes represent of the total designs produced by the factory during its period of operation.

Towards the end of the 19th century the demand for clay pipes had suffered a serious decline due to the introduction of less fragile pipes made from meerschaum and briar and the smoking of cigars, cigarettes and cheroots. That state of affairs was reflected in the sharp fall in the number of pipe manufacturers working in Bristol. By the early 20th century, when the Temple Quay kiln was in use, there was only one other pipe factory in Bristol, that of Thomas George and Company in Great George Street which closed in 1921.

Despite the fall in demand for clay pipes some manufacturers still produced a large number of different pipe designs for sale (Gallagher 1987). In 1900 William White and Company of Glasgow listed some 606 designs, Davidson and Company of Glasgow around 417, John Waldie and Company of Glasgow 290 designs and John Pollock and Company of Manchester 206. However, these were all quite large concerns and perhaps the Bristol Tobacco Pipe Manufacturers were more comparable in size to William Christie of Leith who was producing only 79 designs.

The Bristol Tobacco Pipe Manufacturers took over the premises formerly operated by Corcoran and Company (A.J. Veale) and it is possible that they also purchased their pipe moulds. As one of the last pipe manufacturers in Bristol they may also have acquired moulds from other defunct pipemaking firms which we know happened elsewhere. For example, William Christie of Leith had moulds in their stock which had previously belonged to at least six other pipemakers (Gallagher & Sharp 1986, 32-33).

During the 17th and 18th centuries locally based clay pipe mouldmakers had manufactured distinctive regional bowl types which changed over the years allowing the place of manufacture and the date of the pipes made in them to be deduced with some degree of accuracy. In the 19th century regional styles gave way to designs which occur throughout the United Kingdom suggesting that fewer mouldmakers were delivering well-known patterns with modifications to suit customers requirements. The designs depicted a wide variety of subjects: floral and botanical decoration; animals and fish; coats of arms; sport; famous people; battles; exhibitions; societies; bowls held with a claw or hand; bowls imitating wooden pipes; Irish motifs and addresses; and advertising - to name but a few. The mould designs used by the Bristol Tobacco Pipe Manufacturers were typical of their date and were similar to moulds clearly being used by pipe manufacturers elsewhere.

BCT 1, 1A, 2 and 2A bear the initials 'RAOB' of the Royal Antedeluvian Order of the Buffaloes. This society was commonly depicted on pipes and similar designs are known to have been registered by the manufacturers Samuel McLardy of Manchester in 1894 and 1902 and W. Boud of London in 1880 (Hammond 1985).

A design for a pipe bowl in the form of a fish (BCT 18) was registered by Henry Dewy of Gloucester in 1885 (Hammond 1985) and is also known to have been produced by William Southorn & Co and R. Smitheman & Co of Broseley (Green 1986, 18-19). Similarly, a design for a pipe bowl depicting the head of King Edward VII (BCT 26) was registered by Charles Crop & Son of London in 1902 (Hammond 1985).

A pipe bowl in the form of a hand holding a glass (BCT 24) is known to have been produced by William Southorn & Co and R. Smitheman & Co of Broseley (Green 1986, 18-19) while a Ping Pong pipe bowl with crossed bats (BCT 27) is illustrated by Le Cheminant as having been found in London (1981, fig.16, 157).

Pipes bearing the Irish harp or shamrock and marked with the words 'ERIN' (BCT 3 & 31), 'CORK' (BCT 4) and 'DUBLIN' (BCT 2A & 4) are found throughout the country as are those with thorn and bark effect decoration imitating the increasingly popular briar pipe (BCT 11-14).

The only design which is apparently unique to Bristol is that bearing the name 'TERRY MORGAN' (BCT 28). Parallels cannot be found in the published literature but it is assumed that Terry Morgan was perhaps a contemporary sporting personality.

BRISTOL CLAY TOBACCO PIPE MANUFACTURERS LIMITED - TYPE SERIES (FIGS.4-5)

BCT 1 RAOB and horns of buffalo on bowl, transverse lines incuse around top of bowl, small four petalled flower either side of spur.

BCT 1A RAOB and horns of buffalo on bowl, no decoration on spur.

BCT 2 RAOB and buffalo head on bulbous bowl, transverse lines incuse around top of bowl, initial 'B' on either side of spur.

BCT 2A RAOB and buffalo on larger bowl than BCT 2, transverse lines around top of bowl, plain spur, 'DUBLIN' incuse on the only complete stem.

BCT 3 Harp with small 'ERIN' beneath on right side of bowl, triple shamrock design on left side of bowl, transverse lines around top of bowl.

BCT 4 Plain large, heavy bowl with transverse lines around top, large plain spur, 'DUBLIN' incuse on one stem, 'CORK' on another.

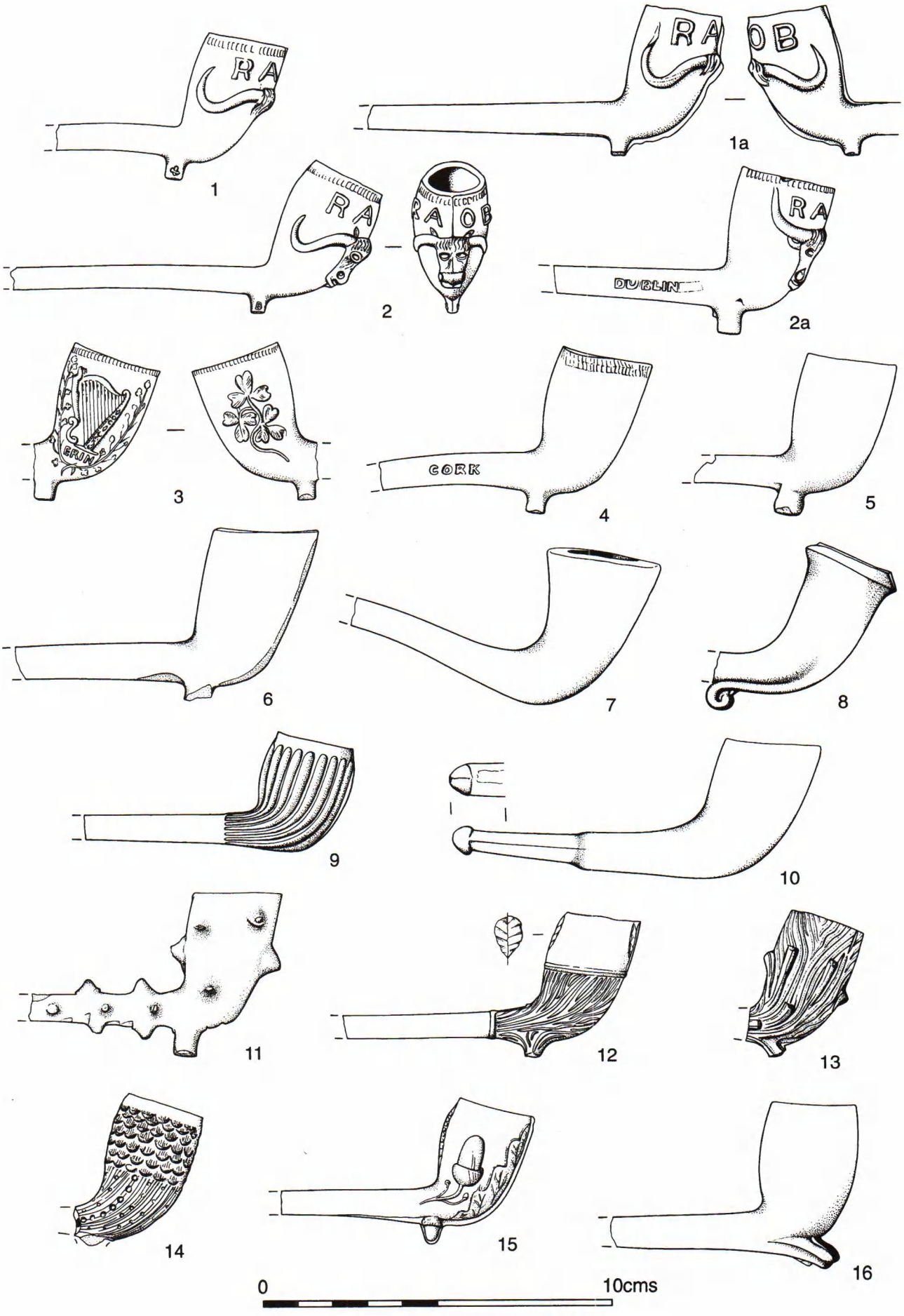


Fig.4 Clay pipes 1-16.

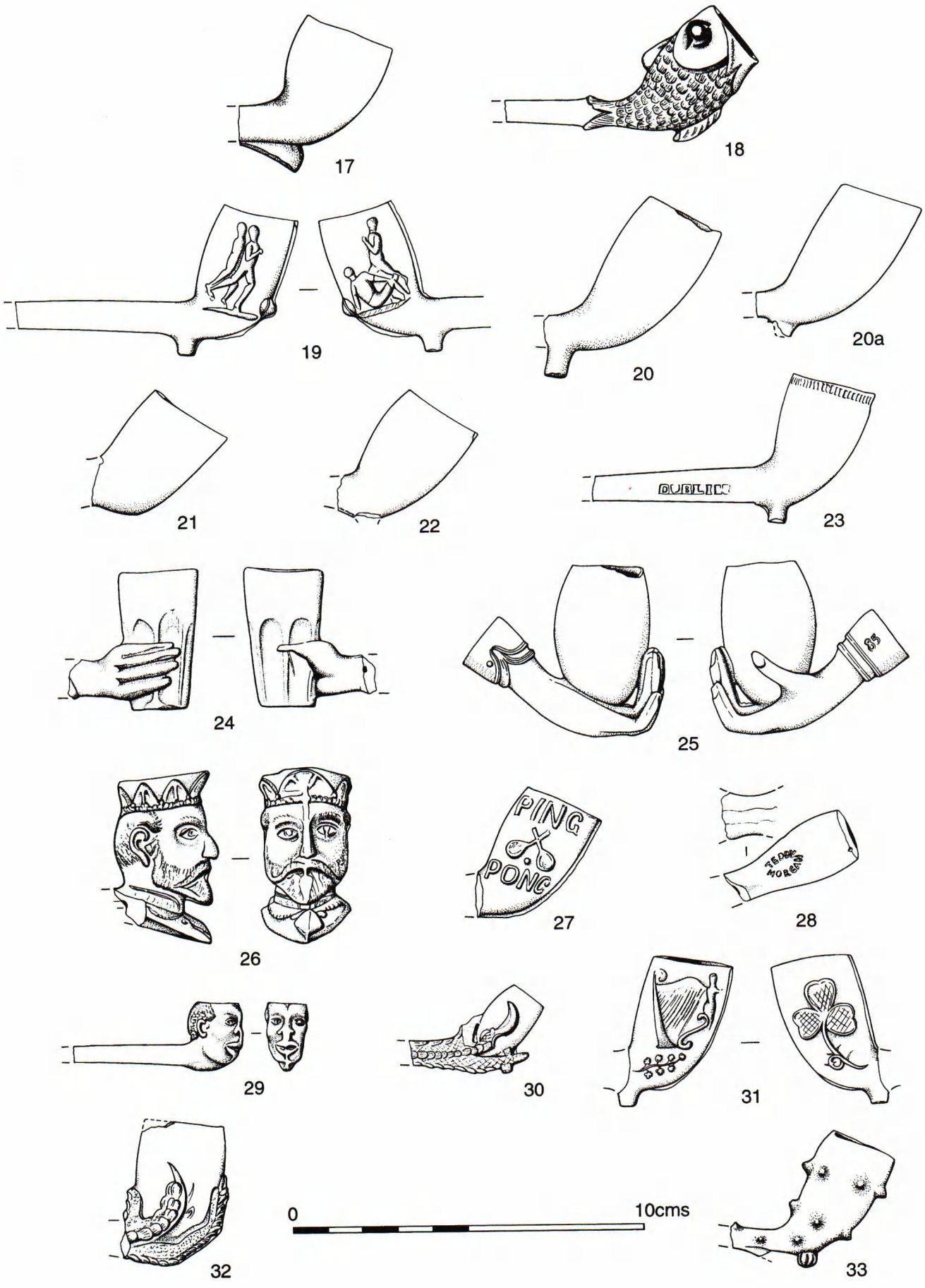


Fig.5 Clay pipes 17-33.

BCT 5 Similar to BCT 4 but without transverse lines.

BCT 6 Large plain, slightly projecting bowl with straight front.

BCT 7 Plain, meerschaum style pipes.

BCT 8 Plain hunting horn style bowl with spiral spur.

BCT 9 Grooved, bulbous bowl.

BCT 10 Plain, similar shaped bowl to BCT 6, but without a spur, short stem (total length of the pipe, 10cm).

BCT 11 Briar pipe style, thorn decoration on bowl and stem.

BCT 12 Briar pipe style, bark effect at end of stem, on spur and lower half of bowl.

BCT 13 Briar pipe style, bark and chopped branch effect on bowl.

BCT 14 Briar pipe style, bark effect on end of stem and on lower half of bowl below a leaf plumage effect.

BCT 15 Acorn and oak leaf design on bowl, acorn shaped spur.

BCT 16 Plain egg-shaped bowl supported by two forward projecting feet.

BCT 17 Plain bowl with single forward projecting foot.

BCT 18 Fish shaped bowl.

BCT 19 Football design bowl.

BCT 20 Plain, narrow, slightly projecting bowl with large spur.

BCT 20a A smaller version of BCT 20.

BCT 21 Plain, small, heavy bowl, possibly small version of BCT 10.

BCT 22 Small, plain bowl, possibly small version of BCT 20A.

BCT 23 Plain bowl, small spur, transverse lines around top of bowl. Stem marked 'DUBLIN'.

BCT 24 Pint glass shaped bowl clasped by hand.

BCT 25 Egg-shaped bowl held by hand with shirt cuff. '85' incuse on cuff.

BCT 26 Bowl in the shape of a bust of Edward VII.

BCT 27 Bowl decorated 'PING PONG' with crossed bats on both sides.

BCT 28 Unusual style upright bowl marked 'Terry Morgan'.

BCT 29 Tiny negro head.

BCT 30 Tiny egg-shaped bowl held by claw.

BCT 31 Similar to BCT 3, but with harp on right side of bowl and single shamrock on left.

BCT 32 Normal sized version of BCT 30.

BCT 33 Similar to BCT 11 but smaller and with a ball-shaped spur.

CONCLUSIONS

The archaeological watching brief at Temple Quay revealed the base of a circular, multi-flued, updraught pipe kiln, the first of its kind to be archaeologically excavated and recorded. The kiln had been built in 1903 and remained in use in an unaltered form until 1911. Initially in the ownership of Corcoran & Co. (A.J. Veale), the pipe factory in Tower Street was taken over by Bristol Clay Tobacco Pipe Manufacturers Ltd in 1905.

Thirty-three different designs of pipe bowl were found associated with the kiln and these provide the first evidence for the type of pipes being made in Bristol during the early 20th century.

ACKNOWLEDGEMENTS

The authors would like to thank Churngold Remediation Ltd for their assistance during the excavation, Allan Peacey for his comments on the design of the pipe kiln and Ann Linge for the pipe drawings.

BIBLIOGRAPHY

BaRAS Report No. BA/C077 1994. *Archaeological evaluation and excavation at Quay Point, Temple Meads, Bristol.* Unpublished client report.

BaRAS Report No. BA/D198 1995 *Archaeological excavation at the Portwall and Ditch, Temple Back, Bristol.* Unpublished client report.

BaRAS Report No. 307/1997 *Archaeological evaluation at Rose Street/Pipe Lane, Bristol.* Unpublished client report.

BaRAS Report No. 453/1998 *Archaeological evaluation at Temple Quay, Bristol.* Unpublished client report.

BaRAS Report No. 494/1998 *Archaeological evaluation at the former Electricity Sub-Station, Temple Quay, Bristol.* Unpublished client report.

BaRAS Report No. 617/2000 *Archaeological excavation at Plot 5, Temple Quay, Bristol.* Unpublished client report.

Gallagher, D B, 1987 The 1900 Price List of the Pipe

BCT Type	Context	Quantity	Number of moulds used	Total
1	116	6	1	6
1A	116	4	1	4
2	116 125	27 complete bowls 7 fragments of bowls 5 complete bowls 1 bowl fragment	1	40
2A	116 125	4 3	1	7
3	116 125	13 2	1	15
4	116 125 132	6 4 2	1	12
5	116	1	1	6
6	116	3	1	3
7	116 132	12 1 complete bowl 1 fragment	1	14
8	116	4	2	4
9	116 132	4 1	1	5
10	116 132	5 2	1	7
11	116	4 complete bowls 3 fragments	1	7
12	116 132	4 1	1	5
13	116	3	1	3
14	116	4	1	4
15	116 132	2 2	2	4
16	116	2	1	2
17	116	22	1	2
18	116	5	1	5
19	116	5	1	5
20	116 132	3 1 fragment	1	4
20A	116	2	1	2
21	116	1	1	1
22	116 132	1 1	2	2
23	116 125 132	9 1 fragment 2	4	12
24	116	1	1	1
25	116	1 1 fragment	1	2
26	116	1	1	1
27	116	1	1	1
28	116	1	1	1
29	116	4	1	4
30	116	2	1	2
31	132	1	1	1
32	132	1	1	1
33	132	1	1	1
Totals			**42**	**196**

Types 1, 1A, 2, 2A	amount to 29% of the total bowls
Type 3	7.6%
Type 4	6%
Type 7	7%
Type 23	6%

Table 1 Analysis of Pipe Types, Number of Moulds and Quantities.

Makers' Society. *BAR Brit Ser* 178, 142-164.
Gallagher, D B & Sharp, A, 1986 *Edinburgh tobacco pipemakers and their pipes.* Edinburgh City Museums.
Green, M, 1986 Broseley rivals. *Soc for Clay Pipe Research Newsletter* 12, 18-19.
Hammond, P J, 1985 Registered and Patented clay tobacco pipe designs. *BAR Brit Ser* 146(i), 29-156.
Le Cheminant, R, 1981 Clay tobacco pipes from London and the South-East. *BAR Brit Ser* 97, 127-172.
Peacey, A, 1996 The development of the clay tobacco pipe kiln in the British Isles. *BAR Brit Ser* 246.
Price, R, Jackson, R & Jackson, P, 1984 The Ring family of Bristol, clay tobacco pipe manufacturers. *Post-Medieval Archaeol* 18, 263-300.
Wright's Directories 1903 - 1919.
WS Atkins 1999 *Temple Quay, Bristol, an archaeological desk-based assessment.* Unpublished report for English Partnerships.

REVIEW OF ARCHAEOLOGY
1999-2000
Edited by Bruce Williams

Abbreviations

AAU	-	Avon Archaeological Unit
BaRAS	-	Bristol & Region Archaeological Services
BAT	-	Bath Archaeological Trust
BRSMG	-	Bristol City Museum and Art Gallery
CAT	-	Cotswold Archaeological Trust
CMAG	-	Bristol City Museum and Art Gallery
NSMS	-	North Somerset Museums Service

The review of archaeology is arranged alphabetically by parish and covers the four unitary authorities of Bath and North-east Someset, 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.

BATH AND NORTH-EAST SOMERSET

BATH

St Swithins Yard, Walcot St, Bath, ST 7515 6548. M Beaton, C Butterworth, M Lewcun and T Lovekin investigated a 0.4 hectare site in advance of development work by their client Future Heritage Plc. The project was undertaken in several stages between December 1998 and December 2000. The project followed on from a 1991 evaluation which showed that at least 1.2m of stratified Roman deposits survived beneath the western portion of the site adjacent to Walcot St.

Walcot St overlies a Roman road which linked the walled area (The Baths/Temple complex) with the Fosse Way to the north. Previous excavations have shown that both Walcot St and the Fosse Way junction were lined with town houses throughout much of the Roman Period. This has led to the suggestion that Aquae Sulis had two distinct foci; a 'religious' centre which lay within the walled precinct and a civilian settlement to the north.

The remains of two townhouses were identified on the street frontage. Pottery evidence suggests that these buildings were constructed during the second century. Although the buildings appear to have originally been symmetrical, this was lost when both were later extended and subdivided. The buildings were constructed out of oolitic limestone. Although the majority of the walls were found to have been robbed out, one wall still survived to a height of 2.1m (25 courses) above footing level. Approximately 1500 fragments of painted wall plaster were recovered. The pottery assemblage contained a high proportion of flagons and mortaria which suggest that a hostelry or kitchen might have been located in the area. An oolitic limestone water tank was found in one of the courtyards. A metalled roadway was discovered immediately north of the town houses running on an east west alignment towards the River Avon. This was re-surfaced several times and probably represents a side alley. The remains of a third building were identified in the eastern portion of the site close to the Avon.

Domestic habitation ceased during the third century and the site was then used for industrial and burial purposes. A rectangular surface kiln was discovered within one of the townhouses. It was probably a tile kiln and has been archaeo magnetically dated to c.320 AD (+/- 30 years). Two burials were cut through the roadway after it had silted. Both were aligned east-west and were intercut. The first burial was of a woman buried within a timber coffin, traces of which survived, whilst the other was of a man, buried within a lead-lined timber coffin. The presence of disarticulated human bone suggests other burials lay within the vicinity of the site. The project was the subject of a BBC 'Meet The Ancestors' programme (shown January 2001). DNA and lead isotope tests commissioned by the BBC suggest that the man may have had Near Eastern or Mediterranean origins.

The results of the project will be published in a monograph with those from two similar nearby sites.

Mark Beaton et al, BAT

KEYNSHAM

Burden's Yard, (Culvers Road), ST 651 688, Sites and Monuments Record 2593. An observation and recording exercise was carried out for the Orbit Housing Association Limited on a residential redevelopment of a Builders' Merchants Yard. A capped masonry well was located dating from the 19th century. The area had been possibly a small quarry used as a land-fill site and later capped with clay in the late 20th century. No significant archaeological data were recovered.

Jonathan Erskine, AAU

PEASEDOWN ST JOHN

Land at Peasedown St John, ST 712 571. Evaluation comprising geophysical survey, trial trenching and an examination of deposit formation processes was undertaken. Archaeological remains were found widely distributed

across the site. Part of the site was covered by a blanket of colluvium, which originated from the higher ground to the north-west. This colluvium both sealed, and was cut by, archaeological features. Over most of the site, however, the natural substrate was covered only by a thin topsoil, suggesting soil erosion at some episode in the past. A number of graves were identified in one corner of the study area. Although undated they may be part of a cemetery, possibly bounded by a wide shallow ditch, associated with the late Anglo-Saxon and medieval settlement previously excavated at Eckweek Farm approximately 400m to the north. Numerous undated pits, postholes, gullies and ditches were found elsewhere. A large linear ditch with easterly curving terminals contained small abraded sherds of Iron Age pottery, and another ditch yielded a single abraded sherd of Roman pottery.

Alan Thomas, CAT

STONEY LITTLETON

Long Barrow, ST 735 572. Following on from the work described in BAA 16, 96, a geophysical survey was commissioned that covered an area of 1ha centred on the barrow. A linear series of six pit-like anomalies extended from the eastern corner of the monument. In addition a possible quarry scoop was identified on the north-eastern side of the barrow, although this was not borne out by the auger survey.

Alan Thomas, CAT

WHITCHURCH

Hursley Hill, ST 620 663. A watching brief during the laying of a new pipeline encountered no deposits or features of archaeological interest. Earthwork traces of ridge-and-furrow cultivation were evident in the field.

Franco Vartuca, CAT

BRISTOL

AVONMOUTH

West Town Road/The Portway, Avonmouth, ST 52290 77000. A desk-based assessment of land adjacent to the Portway and West Town Road, Avonmouth has found that there is a high potential for Palaeolithic archaeology on the site. This is suggested by the number of palaeoliths recovered in the Shirehampton area and the potential for underlying gravel terrace and Head deposits that this material is often associated with. The site is likely to have been pasture until the 20th century and has more recently been used for allotments. Prefabs occupied the northern end of the site after World War II, although the site is now a largely overgrown open field.

Peter Insole, BaRAS

BEDMINSTER

Ashton Vale, ST 5620 7080. A desk-based assessment of land at Ashton Vale, Bristol immediately adjacent to the city boundary near the Long Ashton Park and Ride found it had been used for agriculture possibly since the medieval period. No archaeological features were recorded within the study area. (BaRAS 660/2000).

Rod Burchill, BaRAS

Merrywood Mills, Merrywood Road, Bedminster, ST 583716, BSMR 20418. An Archaeological desk-based study of Merrywood Mills, Merrywood Road, was carried out for Day Associates Architects in advance of proposed residential redevelopment.

The Study Area had been a paddock at the rear of the 18th century Bull House, which was later reconstructed as the Star Inn complete with stables, gardens, brewery and a Bowling Green. Part of the land to the east was taken into the Dean Lane Colliery in the late 19th century and the Inn's outbuildings were separated into yards, workshops and later formal shops on the North Street frontage.

Jonathan Erskine, AAU

McArthur Warehouse, Gas Ferry Lane, ST 5782 7230. BaRAS carried out a desk-based assessment of a site including the former McArthur warehouse in Gas Ferry Road (formerly Lane), off Cumberland Road. Prior to the nineteenth century the area was meadow. From c.1820 it was part of Hilhouse's shipyard. A large malthouse was erected for Bristol United Brewery in the late 1890s but was seriously damaged by fire in 1938. The renovated building was used by a steel stockholder and later by Artspace, and latterly occupied by small businesses. Additional buildings were erected to the rear of the malthouse in the twentieth century. A railway branch formerly carried across part of the site and into the Albion Dockyard.

John Bryant, BaRAS

BRISLINGTON

Callington Road, Brislington, ST 6127 7040. A desk-based assessment of former allotment gardens at Callington Road, Brislington found no evidence for occupation on the site, although field name evidence suggested a wide gully or hollow shown on Ordnance Survey plans might be of some antiquity.

Rod Burchill, BaRAS

Church Hill, Brislington, ST 6216 7077. A desk-based study of a site near Church Hill, Brislington, to the east of St Luke's Church, found that the land was occupied by a house and garden from, at latest, the mid-nineteenth century. The cottage and outbuildings were demolished in the late 1940's and replaced by the existing warehouse and garages. No archaeological features were recorded within the study area.

Tim Longman, BaRAS

Nursing Home, Tramway Road, ST 614715, BSMR 20412. An observation and recording exercise was carried out for the Southmead and Frenchay Healthcare Trust on the site of the Co-Operative Wholesale Society Clothing Factory. This factory had been constructed in 1936 and its history is well

documented to the present day. The site is also adjacent to the site of Brislington Roman Villa and the 1863 North Somerset Branch of the GWR, now closed. No significant archaeological deposits or artefacts were recovered below the concrete yard and factory floors and heavy brick drains and foundations. A possible air raid shelter was located, dated by building records in the Bristol Record Office to 1940.

Jonathan Erskine, AAU

HENBURY

Blaise Estate Car Park, Henbury, ST 55844 78624. Archaeological monitoring undertaken during the construction of a new car park for the Blaise Castle Estate found no features or finds of archaeological interest.

Rod Burchill, BaRAS

Blaise Castle, ST 55844 78624. An evaluation of the land adjacent to the existing carpark identified a possible gully of unknown date.

Laurent Coleman, CAT

Kingsweston Road, Henbury, ST 5600 7871. Archaeological monitoring undertaken on contractor's groundworks associated with the creation of a new children's play area at Blaise Castle, found no features or finds of archaeological interest.

Rod Burchill, BaRAS

REDCLIFFE

60 Redcliffe Street, ST 5915 7255, CMAG 1998/75. A watching brief was conducted inside the buildings between 60 Redcliff Street and 30 to 38 St Thomas Street. Nine geotechnical trial pits were excavated on the St.Thomas Street side of the building to determine the nature of the footings of the existing walls. No archaeological features or deposits were revealed.

Jayne Pilkington, BaRAS

98-103 Redcliff Street, ST 59062 72566, BRSMG 2000/39). Monitoring and recording demolition of buildings on this site revealed that they incorporated elements from structures shown on 19th-century plans and that walls from earlier buildings existed within the fabric of the 20th-century structures. A subsequent excavation on the site revealed fragmentary evidence of a wooden, wicker river revetment of 12th-century date and medieval tenements fronting Redcliff Street.

During groundworks for the new development a plan of all the medieval tenements within the site was made as party walls survived at a relatively shallow depth. Most of the tenements contained cellars of 18th-19th-century date, although large walls, possibly part of the 13th-century quay, were recorded beneath two of these cellars. A stone slipway was identified between two of the medieval tenements on the alignment of Ferry Lane, recorded on Millerd's late 17th-century maps and 18th/19th-century plans by Rocque, Donne and Ashmead. This lane was widened in the 1860's to become Ferry Street between Redcliff Street and Redcliff Backs.

Peter Insole, BaRAS

30 to 38 St Thomas Street, ST 5915 7255, CMAG 1998.0078. An excavation was carried out on part of the land evaluated in 1998 (see BAA 16). Two areas totalling 220 square metres were investigated just behind the street frontage.

The lowest deposit encountered at between 6.8 and 7.1m aOD was the river alluvium, consisting of a grey-brown silty clay loam which became browner in colour towards its surface. There was only a gradual boundary between the alluvium and the overlying archaeology with no obvious soil horizon surviving between them.

The first evidence of human activity was the occurrence of a few sherds of 12th-century pottery in the extreme upper surface of the alluvium. The archaeological evidence was insufficient to suggest occupation of that date on the site but the pottery sherds presumably derived from 12th-century occupation in the vicinity. Neither the excavation nor the documentary research suggested that occupation had begun at 30-30 St Thomas Street before the construction of the defensive line known as the Portwall in the 1240s.

A number of shallow pits cut into the alluvium were the earliest features discovered. They may have been dug to extract clay, possibly for use in a nearby pottery. Certainly they had been deliberately backfilled with 14th-century pottery kiln waste of a type belonging to the so-called "Redcliffe-ware" pottery industry. It seems likely that the pits were dug and backfilled before occupation commenced on the site. We know that had occurred some time before 1325 when Isabella de Yeule was noted as owning 'a garden, house and land' here (documentary research by Dr R H Leech). This fits in well with the first certain archaeological evidence for occupation which consisted of a layer overlying the alluvium which contained pottery dating from the second quarter of the 14th century. An east/west V-shaped ditch almost certainly defined a property boundary established at this time. The ditch was reinforced by a wall along its south side later in the 14th century.

The only evidence for a medieval building found during the excavation was an early 14th-century north/south wall which had been built on the surface of the alluvium, and was most probably the rear wall of a house fronting St Thomas Street. If that is the case then the medieval street must have been much narrower than it is today as the rest of the house must lie beneath the modern pavement and road.

The medieval house was largely demolished in the 16th century and the mortar and rubble derived from its destruction spread across the area. An examination of the demolition debris suggested that it was a house of some status having carved freestone window and door openings and a roof of Pennant sandstone tiles finished with green glazed crested ridge tiles.

In the latter half of the 16th century a lodge was built on the site and that property included a "garden ground". The

lodge was certainly in existence by 1572, a date that fits in well with the archaeological evidence of a late 16th-century date for the deposition of the first level of post-medieval garden soils which covered the entire area of the excavation until the early 18th century.

By 1721 the lodge and garden had gone, replaced by Richard Warren's glassworks. Part of the glasscone was found during the 1998 evaluation while the excavation located the foundations and cellars of some of the ancillary buildings shown on a 1768 plan of the works. Glass production had ceased before 1774 and by 1789 one of the buildings of the former glassworks had become a public house. The 18th-/early 19th-century buildings were demolished in 1889 for the construction of Edward Ringer and Company's tobacco factory.

Reg Jackson, BaRAS

ST AUGUSTINE

Canons Marsh, ST 5820 7240. An historic landscape appraisal of Canons Marsh was undertaken on behalf of English Heritage. This was mainly a visual study using historic illustrations and cartographic sources.

John Bryant, BaRAS

College Square, ST 58217 72607, BRSMG 2000/27. Four trenches were excavated to investigate the potential for surviving evidence of buildings associated with the Abbey of St. Augustine,. Revealed were wall footings that are likely to relate to a medieval range, depicted on a view of the area by Bernard Lens in 1712. The footings had been reused for the later 18th-century buildings that occupied the site until the late 1930's; the present ground surface is likely to be the approximate level of the cellar floors of these buildings. Medieval occupation within the structures did not survive, although a rough stone cobbled surface, revealed at the south end of the site, is likely to have been part of an open yard. Dating evidence from the make-up deposits for this yard surface suggest a 13th-14th-century date. To the west of the structural remains, the archaeological trenches revealed garden soil deposits of 18th and 19th-century date.

Peter Insole, BaRAS

Deanery Road, ST 58160 72635. A desk-based assessment of a site in Deanery Road, formerly occupied by Bryan Bros Ltd found the area to have been part of the Bishop's Park, originally part of the estate of St Augustines Abbey. At the western end of the park, partially within the study area, were three large ponds of uncertain function. The site had been pasture until c.1770 when it was leased for development.

The area was developed for housing and continued to be residential until well into the 20th century. The site was eventually redeveloped for commercial use.

Rod Burchill, BaRAS

Deanery Road/Anchor Road, ST 58137 72635. Field evaluation in advance of redevelopment examined an area approximately 150m west of the 12th-century Augustinian abbey and later cathedral. The site was known in the 17th century as the 'Bishop's Park', and is shown on Rocque's map of 1742 as undeveloped land containing a large pond, prior to its residential and commercial development from the late-18th century onwards. Evaluation trenching revealed a small assemblage of residual 13th to 14th-century pottery but no in-situ medieval deposits nor fishpond structure. Eighteenth-century and later cellars, and the former line of College Street were noted, the latter overlaid by dumps containing 17th to later 18th-century artefacts. Subsequent excavation targeted the anticipated site of the fishpond. No evidence of a pond was encountered but, unexpectedly, excavations partially revealed the robbed remains of an undated but potentially medieval, circular stone structure. Overlying footings was a 1.3m wide mortared sandstone foundation course associated with a slab-lined floor. An integral under-floor drainage channel directed water through the curving wall to discharge into a sluice area defined by two buttresses on its southern side. The structure was covered by robbing debris and dumps containing 17th to 18th-century finds. The structure may have been associated with the medieval water supply system, and might have served as a filtration or supply cistern fed by groundwater from the system of conduits previously recorded in this part of the town.

Alistair Barber and Mark Collard, CAT

10 & 11 Denmark Street, ST 58470 72828. Conversion of two properties in Denmark Street into a bar was accompanied by an archaeological watching brief. Both premises had been rebuilt during the nineteenth century but retained the original rear walls from the eighteenth century terrace.

John Bryant, BaRAS

Site of the South Building, Canons Marsh, ST 58445 72512. Follow up excavations to an archaeological evaluation carried out at this location in 1998 uncovered further evidence of 18th/19th century occupation and industrial activity. A timber yard recorded during the evaluation was confirmed as the 19th-century successor to a formal garden shown on Rocque's plan of Bristol dated 1742. Remains of the latter comprised a possible gravel path, flowerbed, drainage gully and a line of shrub-holes. The gully and shrub-holes were found to contain pottery dating from the 17th and 18th centuries. Structural remains, the earliest of which rested upon alluvial clay, were preserved *in situ* along the eastern and southern sides of the timber yard. Those remains fronting onto the former line of Canons Road were interpreted as the foundations of 18th-century domestic buildings, namely the George Hotel and adjacent properties. The structures looking out over the yard also dated from the 18th century but had been added to and rebuilt during the 19th century, converting them from residential to industrial use. A chimney base, (complete with firebox), a pair of boiler chambers and several brick floored processing areas were all identified, but there was a marked absence of finds to identify the type of industrial activity with which they

were associated. There is no historical documentation for this building complex, but given its dockside location and the street directory listings for Canons Marsh during this period, it is more than likely that it was connected with timber processing (i.e. steaming, warping and coating) or rope-making. A further segment of an already recorded broad, stone-lined conduit, thought to be for drainage, sewage or access to the Canons Marsh ropewalk, was recorded during the excavation, as was a shorter stretch meeting it at right angles. It is unclear how the conduits related physically or temporally to the other structures present on the site, but neither appeared to extend beyond the confines of the timber yard or the underlying garden.

Adrian Parry, BaRAS

No.1 St Georges Road, ST 58229 72884. Archaeological monitoring undertaken on contractor's groundworks found no evidence for earlier occupation of the site.

Rod Burchill, BaRAS

Stoney Hill, ST 58432 73119. Two trenches were excavated under archaeological observation near the top of Stoney Hill against the north-west wall of the Red Lodge, as part of investigation into damp problems within that building. The deeper trench was taken down almost two metres without natural being reached. No objects of interest were found.

John Bryant, BaRAS

The Georgian House Museum, 7 Great George Street, Bristol, ST 58185 72921. An evaluation trench was excavated to the rear of the house in order to locate earlier garden remains prior to re-landscaping. Part of the terraced Victorian garden was uncovered beneath the modern garden, and this, in turn, sealed remains of the first garden landscaped c.1790. These remains comprised a sloping central expanse of rubble and clay with flowerbeds to either side. Part of the garden interior was surfaced with grey ashy gravel, which may have been the setting for a more consolidated gravel surface or stone paving slabs. The remnants of a thin soil layer may have bedded a garden lawn. Soil samples taken for environmental purposes provided very little information about plant species present in the garden during the Georgian period.

Adrian Parry, BaRAS

ST GEORGE

Avon Park, ST 5158 7317, BSMR 20645. A Desktop Study was carried out on the above industrial site. Evidence summarised indicates that the present residential road was constructed in the late 19th century and early 20th century.

The previous history of the Study Area shows it was used as market gardens and for agriculture, for which the suburban parish of St George was noted from the late medieval period. The Study Area is adjacent to finds of Romano-British burials and a medieval chapel and settlement.

Jonathan Erskine, AAU

ST JAMES, ST MICHAEL & WESTBURY-ON-TRYM

3 Montague Place, Kingsdown, ST 585346 737410. A watching brief at 3 Montague Place, in close proximity to the site of Colston's Mount or Colston's Fort (BUAD 943M) revealed the backfilled remains of the brick vaulted cellars associated with the 19th-century Kingsdown Brewery.

Peter Insole, Adrian Parry & Jayne Pilkington, BaRAS

ST JAMES

Former Moravian Burial Ground, Upper Maudlin Street, ST 586 734, CMAG 1999.0007. Human remains were recovered during groundworks on the site of the new Medical Education Centre, Upper Maudlin Street, Bristol. During excavation work the articulated and in-situ skeletons of five adults and one child were encountered. Finds included associated coffin furniture, such as coffin handles. In addition, several fragments of lead coffin were recovered, as well as preserved fragments of wooden coffins and fabric (? burial shroud).

The human remains were placed in boxes and removed from site prior to being reinterred in the Moravian burial plot at Canford Cemetery, Westbury-on-Trym, Bristol.

Tim Longman, BaRAS

15 to 29 Union Street/Fiennes Court and Sterling House, Fairfax Street, ST 5900 7321, CMAG 2000.0025. An excavation covering an area of some 750 square metres was carried out on this site which was evaluated in 1999 (see BAA 16). It lies just outside the area occupied by the medieval city and on the north bank of the River Frome.

From the mid 12th century to the first half of the 16th century this land was owned by the Benedictine priory of St James and it had been assumed that it remained as fields until at least the 13th century. However, the excavation showed that the course of the Frome had been altered as early as the 12th century when it was pushed further west by the construction of a river wall which probably also served as a quay. A medieval street called St James' Back, uncovered during the excavation, linked the priory with the river. The street name suggests that it originally ran along the top of the quay, as elsewhere in Bristol quaysides are still known as 'Backs' (as in Welsh Back and St Augustine's Back).

The old course of the river was then backfilled with red sand and clay to make a level, dry surface for occupation. The sand and clay had probably been brought from the area of St James' priory or from Bristol castle, the latter situated to the south of the Frome, both of which were built on outcrops of red Triassic sandstone and Keuper Marl.

By the later 12th century an industrial complex consisting of stone and timber buildings with clay floors was established over the levelling deposit. The buildings were associated with a circular stone furnace (possibly the base of a dyeing vat) and at least four metal working hearths. A stone mould for making finger rings was associated with one of the hearths.

During the late 13th or early 14th century the industrial

complex was swept away by the construction of a substantial house with a courtyard and gardens. The house had been built of yellow Lias limestone and roofed with slate which must have given it an imposing appearance. Successive stone floor surfaces in what was probably the great hall produced many fragments of wine jugs, some imported from France and Iberia. A stone-lined garderobe pit adjoined the north-east corner of the building. To the north of the house further stone foundations indicate the presence of at least one outbuilding - possibly a detached kitchen block.

The size of the house and the materials used in its construction suggests that it belonged to a wealthy citizen who used it in the manner of a country retreat away from the crowded confines of the medieval city. Further documentary research is being carried out but it is possible that this was the property owned by the Wilcocks family, first mentioned in 1394 and described in 1546 as "a mansion and brewhouse".

A 15th-century circular pit, dug into the natural alluvium, may have been used for water storage but had been backfilled with organic material including parts of leather shoes, a wooden bowl and pieces of worked timber.

It seems that the house survived into the 17th century although by that time other buildings, possibly workshops or tenements, had been constructed in its garden. It was probably the property described in the later 17th century documents as "ruinated and consumed by fire" in the "late civill warrs and dystracions".

Subsequently the area was occupied by tenements known as the "New Buildings". Some of these survived into the 19th century while others were destroyed in the 1770s during the construction of Union Street. Archaeological evidence for these tenements had largely been removed by the foundations, machine bases, furnaces and heating ducts of the 19th-century Fry's chocolate factory.

Reg Jackson, BaRAS

ST MICHAEL

Johnny Ball Lane, Lewins Mead, Bristol, ST 58620 73253, BRSMG 2000.22. An archaeological evaluation was carried of land off Johnny Ball Lane in June and July 2000.

Preserved garden/yard deposits and features to the rear of documented 18th century tenements were revealed by two evaluation trenches.

Jens Samuel, BaRAS

King David Hotel, Upper Maudlin Street, ST 5858 7332, CMAG 2000/26. An excavation was carried out on two small sites, one to the rear of, and one next to the King David Hotel, which stands on the corner of St Michael's Hill and Upper Maudlin Street.

The study area was understood to cover part of the site of the late 12th century priory of St Mary Magdalen. It was a house of canonesses of the Order of St Augustine, which was founded c1173 and dissolved in late 1536.

Virtually no trace of the medieval priory survived within either of the two excavated areas. However, a 0.62 metre wide north/south aligned stone wall, probably part of a 16th century mansion documented as having been built within the precincts of the former priory, was uncovered from beneath layers of late 17th/18th and 19th century demolition rubble.

The north/south aligned exterior wall was constructed of pennant sandstone and Brandon Hill Grit and was founded on a deep layer of demolition rubble. The rubble included several broken fragments of limestone masonry, glazed ceramic floor tiles and 13th/14th century pottery sherds. The rubble layer also filled a north/south aligned construction trench for a robbed wall, a small section of which survived *in situ*. It is likely that this structure was part of the medieval nunnery.

The only other probable medieval feature recorded was a large sub-circular pit, possibly a 'roasting pit' associated with metal working. The pit was heat affected around its internal vertical sides and was filled with iron slag.

Tim Longman, BaRAS

ST NICHOLAS

Custom House, Queen Square, ST 58782 72651. An architectural and historical assessment of the Custom House was undertaken by BaRAS for Bristol City Council. The present structure mostly dates from the 1830's, having been rebuilt on the remains of the earlier building that was gutted during the Bristol Riots of 1831. Some parts of the basement incorporate elements of the original building of 1710-11 and some fire-damaged timbers are preserved there.

John Bryant, BaRAS

The Former Sailors' Home, The Grove, ST 58827 72443, BRSMG 2000/19. A desk-based archaeological assessment of the former Sailors' Home, the Grove, Bristol was carried out in conjunction with an archaeological survey of the building (RCHME Level 2). The building is Grade II* listed and adjoins the rear of 29 Queen Square, though historically the two buildings were one.

The survey identified 6 main phases of construction dating from 1709 to the present day. The South, East and West Ranges were all constructed during the 18th century, with alterations being conducted in the 19th century. It appears that between 1711 and 1850 the building was used mainly as a warehouse, stables/coach house and back kitchen and from 1850 to the present day it was used as the Sailors Home.

The ornamental audit revealed that generally little survives of the original 18th-century fixtures and fittings. It was only in the interior of Phase 2, c.1715, where a few features survive, which includes a fireplace with associated copper located on the ground floor, and on the first floor fielded panelling with associated fireplace.

Jayne Pilkington and Rod Burchill, BaRAS

Llandoger Trow, Welsh Back, ST 5889 7270, BRSMG 2000.7. An archaeological evaluation adjacent to the

Llandoger Trow public house at Nos. 1 & 2 King Street, 30 & 31 Welsh Back and 12 Little King Street, Bristol revealed that substantial building remains of the 17th century to earlier 20th century were preserved on the site. Some deposits, contemporary with the mid to later phases of occupation of the buildings were also identified. The buildings were all found to be erected on early phases of land reclamation south of the medieval city wall. These landfill deposits were found to be rich in domestic and industrial waste of the first half of the 17th century. It was found that more recent building had only partly affected building foundations and associated deposits at Nos. 1 & 2 King Street and 30 & 31 Welsh Back.

The cellar beneath No. 2 King Street was found to be almost certainly of 17th-century date and largely intact.

No early building fabric was revealed by render stripping in the area of the proposed new opening in the party wall between the public house and No. 2 King Street. It appears this wall was repaired subsequent to bomb damage sustained during the Bristol Blitz.

Jens Samuel, BaRAS

ST PAUL

Broadmead Redevelopment Site, ST 5940 7340. John Bryant of BaRAS and Dr. Roger Leech carried out a desk-based archaeological assessment of the Broadmead Redevelopment study area. This overlies extensive archaeological remains. These relate especially to the establishment of the Broadmead suburb by St James's Priory in the twelfth century and to the founding of the Dominican friary in the thirteenth century. The archaeological remains are important also as evidence for life in the medieval and the early modern city.

John Bryant, BaRAS & Roger Leech

Wilson Street, St Pauls, Bristol, ST 5959 7370. An archaeological watching brief, carried out on the site of a former scrap-yard, recorded part of the late 18th/19th century street frontage on the southern side of Wilson Street. The remains exposed by ground-working activity included a row of adjoining cellars and a horizon of buried garden soil. Several of the cellars had coal chutes and underfloor cisterns. Two stone wells of indeterminate date and part of a 19th-century slum dwelling located adjacent to Orange Street were also recorded.

Adrian Parry, BaRAS

ST PAUL WITHOUT

228 Mina Road, St Werberghs, ST 601752, BSMR 20572. A Desktop Study was carried out for SGB Services PLC on the above disused industrial site.

The site contained the site of the Ashley Vale Mills, earlier known in the medieval period as the Glass Mills or Glasspylle Mills. The mills had associated artificial water courses and water control systems now presumably buried. The stream and the Boiling Wells to the north were used as the source for the medieval Key Pipe providing water to the dockside in the medieval city of Bristol. The land was the property of St James' Priory in Bristol until the Dissolution when it became part of the Heath House Estate belonging to the Smyths of Aston Court, Bristol.

Jonathan Erskine, AAU

SS PHILIP & JACOB WITHOUT

Land adjacent to 17 Wade Street, St Judes, ST 5982 7350, BUAD 926. A Desktop Study and an Evaluation exercise were carried out for Clarendon Homes Limited and Highcrest Development Company prior to a proposed residential redevelopment.

Wade Street represents an important element in one of the earliest planned developments of artisan housing in Bristol. The land was conveyed in 1707 and construction commenced in c.1710. Neglect and dilapidation led to compulsory purchase in 1936, but no development had occurred since then.

The evaluation exercise indicates that the 18th-century cellars and ground plans, somewhat modified, still survive to a considerable depth. A small residual assemblage of medieval pottery indicates some limited medieval activity in the area.

Jonathan Erskine, AAU

48-54 West Street, Old Market, ST 59963 73257, BRSMG 2000/110. During the monitoring of groundworks at this site, medieval material was recovered from a linear feature likely to have been a ditch of unknown function, aligned approximately parallel with West Street. Precise dating of the ditch was not possible; only three pottery sherds were recovered dating from the pre-Conquest period to the late-13th century. Late 16th-century occupation and a well were recorded to the rear of the West Street properties.

Peter Insole, BaRAS

ST THOMAS

Former Courage Brewery, ST 5910 7293. Detailed recording and assessment of brewery buildings in the Georges Square development area was carried out. These included the eighteenth-century and later Brewhouse and Malthouse, depicted on the engraving of c.1788, and the twentieth-century Maltstore, Keg Store and Bottling Store. Further work will take place in 2001 during refurbishment of the older buildings. The Maltstore and Bottling Store have been demolished.

John Bryant, BaRAS

TEMPLE

Plot 2A, Temple Quay, ST 59513 72630, BRSMG 2000/14. Archaeological monitoring of groundworks recorded a clay tobacco pipe kiln that was operated by the Bristol Clay Tobacco Pipe Manufacturers Ltd, formerly Corcoran & Co (A J Veale) from 1904 to 1911 (see report, this volume). The kiln stood in a small property at the rear of Poole's Court, off Tower Street. It is unclear whether the kiln stood in a yard, or roofed structure. By the time of the 1918 OS plan,

surveyed in 1912, Poole's Court had been replaced by a rectangular building of unknown function.

Excavation of the kiln's fireboxes recovered pipes from 42 different moulds. Wright s Directory suggests that the property was vacant until demolition for the Goods Shed extension in the 1920's.

Peter Insole, BaRAS

Plot 2B, Temple Quay, ST 59517 72630, BRSMG 1999/0054. A watching brief was conducted during redevelopment of the Temple Quay site prior to the construction of new offices. Known features of archaeological significance on the site include the medieval Portwall, a Jewish burial ground, two 19th-century malthouses and various industrial properties. The basement from the Temple Meads Goods Shed, constructed in the 1920s and formerly located over part of this plot, truncated many of these features. Structural remains encountered during remediation work included cellared buildings and 19th-century culverts. The watching brief confirmed that little scope existed for undisturbed archaeological remains on the site.

Kate Edwards, BaRAS

Plot 5, Temple Quay, ST 5951 7253, BRSMG 1999/0054. A watching brief was carried out during redevelopment on the site The dominant features surviving on the site include the thirteenth century Portwall, a Jewish burial ground and two malthouses.

A substantial basement slab from the Temple Meads Goods Shed, constructed in the 1920s, had truncated many of the archaeological remains. The stratigraphy across the site was typically very deep and comprised dumped material from various local industries.

The watching brief included overseeing the reburial of a section of the Portwall, which was uncovered during remediation work.

Kate Edwards, BaRAS

Watergate, Temple Quay, ST 59569 72621, BRSMG 2000.18. An archaeological excavation was carried out on the medieval watergate at Temple Quay. Previous evaluations of the site had revealed the well-preserved remains of the Portwall, Bristol's 13th-century fortification enclosing the suburbs south of the river Avon, and a substantial gate (postern) providing access to and from the water-filled ditch outside the wall. It seems likely the gate was built by the Knights Templar as a symbolic gesture of their presence in the town.

Several phases of construction and repair were recorded, dating between the 13th and 19th century. It is proposed to display the gate within the new development.

Simon Cox, BaRAS

WHITCHURCH

Horstman Controls, South Bristol Business Park, Hengrove Way, Hengrove, ST 691691, BSMR 20396. An archaeological recording exercise was carried out for Horstman Controls Limited and C H Pearce Construction Limited on the site of a former public playing field closely adjacent to previous finds of a Romano-British farmstead, field system and the medieval finds of Inns Court. The site was being redeveloped as an industrial unit and car parking.

A very small number of Romano- British sherds were recovered from unstratified deposits indicating a very low level of occupation and/or high recent disturbance. The area had been reduced in level considerably in the recent past.

Jonathan Erskine, AAU

WESTBURY ON TRYM

'Avonleigh', Stoke Park Road South, ST 566754, BSMR 20640. A desk-based programme of research for Countryside Residential Limited indicates that the house was built soon after 1869. It was constructed in the Dutch style for a Bristol Warehouse owner, Benjamin Perry. The land had previously been part of the Stoke Park Estate sold off in 1869 to the Birmingham Financial Company. It is possible that the house is adjacent to the Roman Road from Bitton to Sea Mills, but no archaeological evidence was recovered from test pits on the site.

Jonathan Erskine, AAU

Cotham Grammar School, ST 58360 73958. A desk-based assessment of a site at Cotham Grammar School, Cotham, was carried out. The site had been part of a field named Windmill Close until incorporation into the garden of a house built in about 1840. Nearby had been a four-sailed windmill from at least 1673, either a post or a tower mill. In the eighteenth century this had been converted into a snuff manufactory, but in 1779 it was rebuilt as an observatory or prospect tower, Cotham Tower. The tower was removed in 1953.

John Bryant, BaRAS

Malvern House, Grove Road, Redland, ST 5757 7481. A desk-based assessment of the Malvern House site at Grove Road and Elm Lane, Redland, Bristol was carried out. It is thought that the Roman Road from Sea Mills to Bath once ran by or across the site. The area had remained undeveloped until the early nineteenth century, when larger houses were erected during the period 1825-1841. All still survive. Private residences from the beginning, they eventually became absorbed into Redland Teacher Training College, when various additions were made and tennis courts laid out in the former gardens.

John Bryant, BaRAS

Redland College Site, Redland Hill, ST 5758 7498. A desk-based assessment of the former Redland College site on the north side of Redland Hill, Redland, Bristol was carried out. The area had remained undeveloped until probably the early eighteenth century. Thomas Fane had a house there in the 1740's. Redland Hall was built nearby before the end of the century. A third large house (Redland Bank) was added in

the nineteenth century. All three large houses survived until 1961 when they were removed for the construction of Redland College.

John Bryant, BaRAS

Queen Victoria House, Redland, ST 57467 74853, BRSMG 2000.42. A limited archaeological evaluation was carried out in the grounds of Queen Victoria House. The putative course of the Roman road detected by excavation to the northwest of the house, was suggested to have crossed the area of evaluation. The area of the evaluation had been heavily affected by post-medieval quarrying and no evidence for the road was recovered.

Jens Samuel, BaRAS

NORTH SOMERSET

BACKWELL

Moor Lane, Backwell, ST 4790 6880, WESTM 2000.272. An archaeological evaluation on a site at Moor Lane, Backwell was carried out. The aim of the evaluation was to establish the degree of preservation and character of archaeological remains on the site, specifically two sites recorded on the Local Authority Sites and Monuments Record (SMR). The first of these (SMR No 40277) was the field name 'Marl Pits', which signified the existence of pits for the extraction of clay for pottery or brick making. The second (SMR No 40278) was a series of linear cropmarks, shown on aerial photographs (BKS surveys Nailsea-1962-562624) held in the SMR, which were thought to represent pre-medieval fields or occupation The evaluation revealed a high density of archaeological remains lying within the proposed development area, with ten of the eleven trenches producing archaeological finds or features. These ranged in period from potentially Mesolithic/early Neolithic, through Romano-British and medieval to the post-medieval and were generally represented by features cutting or overlying the natural Mercia mudstone. The earliest feature, a double ditch, dates back at least to the Romano-British, if not the prehistoric period. A soil horizon in the eastern half of the development area also produced prehistoric artefacts. Several pits, visible as depressions in the field surface, were recorded. These may represent the 'Marl Pits' evident from the field name, and could date back to the 13th century, although some had clearly been filled in later on in the post-medieval period. These may relate to the extraction of clay for pottery making, or perhaps for brick making in the post-medieval period.

Simon Cox, BaRAS

FLAX BOURTON

Stancombe Quarry, ST 50500 67800. An archaeological watching brief was undertaken in advance of an extension to the existing quarry. No features or deposits of archaeological interest were identified.

Jon Hart, CAT

HUTTON

St Mary's Church, Hutton, ST 353586, NSSMR 41252. An Evaluation trench opened for the Hutton Parochial Church Council prior to the erection of an extension to the Chancel produced the following results.

Modern service trenches were located for drains and a gas supply. A damaged human prone burial was located with no indication of a coffin and was left in situ. No other significant archaeological data were recovered.

Jonathan Erskine, AAU

LONG ASHTON

Long Ashton Mill and Mill Cottages, ST 545702, NSSMR 42365. An evaluation exercise for Barratt Homes Limited on the site of a former Mill and Mill cottages prior to residential redevelopment produced the following results.

The Mill, reputed to be of medieval origin, produced only structures of the 19th century with earlier residual material below, including medieval and Romano-British potsherds. The 18th to 19th century complex seen on the 1843 Tithe Map and later OS plans indicate that Brook Farm of the 18th century was incorporated into the 19th century Mill Cottages. The Mill buildings were bombed in World War II and finally demolished in 1987.

Jonathan Erskine, AAU

PORTBURY

Sheepway Farm, ST 490 765. A desktop survey of land at Sheepway Farm, North Somerset was carried out in advance of a development proposal to expand the facilities of the Royal Portbury Dock, which lies immediately to the north east of the study area. The survey identified a number of areas of archaeological interest.

Sheepway lies on a No.1 Gravel Terrace which has produced a number of flint artefacts from the Lower Palaeolithic (Davies and Fry 1928, 170; Fry 1956, 126, 129). A Neolithic stone axe has also been recovered from alluvium to the west of the gravel terrace (Bristol City Museum Accession No. F2380).

Although no Roman finds have been noted at Sheepway, the development area may have been linked with the Roman settlements at Portbury (Wigan 1971, 5); Roman occupation has also been noted at Portishead). The present hamlet of Sheepway almost certainly represents a shrunken medieval village, centred on the old road between Portbury and Portishead, but may also include the post-medieval settlement of Wathpins, which lay to the north west of the main village.

On the north western boundary of the study area lies Portbury Battery, part of the World War II defences of Bristol and Avonmouth (Hawkins 1988, 102-3).

The survey recommended a detailed evaluation of the proposed development area to establish the status of the gravel terrace as a Palaeolithic settlement site, and a programme of survey work designed to establish the full extent of the shrunken village. Buildings associated with Portbury Battery are to be retained *in situ*.

References

Davies, JA and Fry TR, 1928, Notes on the Gravel Terraces of the Bristol Avon, Proc. Univ. *Bristol Spelaeol. Soc.* 3 (3), 162-172

Fry, TR, 1955, Further notes on the Gravel Terraces of the Bristol Avon, and their Palaeoliths, Proc. Univ. *Bristol Spelaeol. Soc.* 7 (3), 121-129

Hawkins, M, 1988, *Somerset at War* (Wimborne)

Wigan, E, 1971, *History of the Gordano region of Somerset* (Bristol)

GGAT

SOUTH GLOUCESTERSHIRE

ALMONDSBURY

Bristol Golf Club, Almondsbury, ST 585 816, SGSMR 13916. An observation and recording exercise, together with an evaluation excavation, was carried out for the Bristol Golf Club on the reconstruction of St Swithin's Farmhouse and the construction of a golf course. The area had been previously identified as the site of a medieval chapel and moated farmhouse (Pullin and Erskine 1994). The moat was identified but it had been filled by domestic rubbish within the last 150 years and had been badly damaged by successive construction work. No dimensions were obtained.

Jonathan Erskine, AAU

Hollywood Tower, Almondsbury, ST 5750 8150. A desk-based assessment was carried out of the archaeological potential of the Hollywood Tower estate, which includes an early 19th-century mansion and 54 hectares of parkland, woods and agricultural land.

Three archaeological sites were identified in the vicinity of the study area. A late medieval tenement (SGSMR 5366) is recorded next to Bowstreet Lane, while the site of a possible toft (SGSMR 12960) next to the junction of Bowstreet Lane and the B4055 appears to be speculative. Also, beyond the south-west corner of the estate is recorded the line of the Roman road (SGSMR 5162) between Abonae (Sea Mills) and Glevum (Gloucester) (classified as Margary 541). A field survey identified a linear earth bank, some 8 metres wide by 50 metres long in parkland north-east of the mansion. It is possible that this feature is the 'agger', or embankment, of the Roman road.

Tim Longman, BaRAS

BITTON

Golden Valley Lane, ST 6890 7050. A desk-based archaeological assessment of land at Golden Valley Lane, Bitton was carried out. There is a history of coalmining in the area immediately to the north of the site, but no firm evidence for extraction could be found in the study area, although a few features may be connected with mining. Across most of the site there was only evidence of agricultural activity, possibly beginning as strips within a large medieval field operated under the open-field system. A bank and ditch, found in different parts of the site, are of interest, but lie mostly beyond the site boundary. On the northern edge of the site is a spring that empties into a trough-shaped cistern. Running east-west through the middle of the study area is a drain, culverted in places.

John Bryant, BaRAS

FRENCHAY

Frenchay Flock Mill, Frenchay, ST 64120 77260, BRSMG 2000/5. A desk-based archaeological assessment of the former Frenchay Flock Mill site was carried out in conjunction with an archaeological survey of the standing buildings (RCHME Level 3). Following completion of the building survey, an archaeological watching brief was undertaken which involved monitoring the demolition of the buildings in order that residential properties could be built.

The study found that the Frenchay mill was established in 1761 as an iron works, operated under the auspices of the Frenchay Iron Company, manufacturing agricultural implements for use at home and for export to the Colonies. In 1810 the mill became the lower part of a two-site operation. No remains predating the construction of the original mill in 1761 were revealed and few artefacts were recovered during the watching brief.

The building survey identified 7 main construction phases, with the earliest, Phase 1, dating from 1761. The mill race and the remains of 4 buildings (I-IV) belonged to the first construction phase and fragmentary sections of the buildings formed Phases 2 to 5, dating from the early 19th century up to the late 20th century.

A substantial mill race ran through the site and survived in excellent condition. Originally the mill race measured 110m in length and 48m was revealed during the development. It was built in Pennant sandstone; measured between 1.76m and 2.4m in width and 11m of it was covered with a barrel-vaulted roof. Found in association with the mill race was a complex leat system consisting of 4 different leats. Investigations in the mill race revealed the remains (not *in situ*) of a mixed-flow water turbine. It appeared that a water turbine replaced the undershot waterwheels, which originally powered the mill, in the mid 19th century. Later in the 19th century the mill was converted into a flock manufactory and more recently the buildings were used for a variety of light industrial purposes.

Jayne Pilkington and John Bryant, BaRAS

HANHAM

Hanham Abbots Hanham Court Farm, ST 553705, SGSMR 13472. A desk-based research programme and an Historic Building Assessment exercise for the Court Farm Trust produced the following results. It is proposed to convert the farm complex to residential.

The Barn (Sally on the Barn) is a Listed Building Grade II and was said to be of medieval origin, but is certainly of mid-eighteenth century date, with some later additions and decorations. It was constructed by Henry Creswicke of

Hanham Court in c.1740 and added to in approximately 1840. The majority of the farm buildings date from the 19th century and comprise a good complete example of a yeoman s farm of that date.

Jonathan Erskine, AAU, Mike Jenner, FRIBA

HORTON

Horton, Widden Hill House, ST 764843, SGSMR 13947. Excavation for the foundations of a purpose-built Barn Owl Roost were observed and recorded for Mr and Mrs Fack. The Roost was constructed immediately south of the Horton Camp a Scheduled Ancient Monument, probably a ridge-end fort of the late Bronze or early Iron Age. This monument (SGSMR 2112) has not been previously investigated.

No significant archaeological structures or artefacts were recovered in the shallow soil covering over a yellow marl.

Jonathan Erskine, AAU

MANGOTSFIELD

Emersons Green, Area C West, Mangotsfield, ST 671 779, SGSMR 13963 and 13964. A Geophysical Survey, test pit observation and an Evaluation exercise was carried out on land proposed for redevelopment as an Academic Innovation Centre and associated infra-structure for Howsmoor Developments and the Electricity Supply Nominees.

No significant archaeological deposits or artefacts were located with the exception of comparatively modern stone filled field drains, appropriately draining an area of land known as Muddy Bottom.

Jonathan Erskine, AAU

Land Pit, Church Farm, Mangotsfield, ST 667 764, SGSMR 7559. The remnants of the pit-head buildings of Land Pit were recorded by for Redrow Homes (South West) Limited before redevelopment as residential. A desk-based assessment had been previously carried out (Erskine 1995).

Land Pit was a subsidiary shaft and access for the late 19th-century Deep Pit, part of the Mangotsfield Collieries. In origin it was possibly early 19th century, but it was rebuilt and machinery installed and used for a short period at the end of the 19th century. It was finally closed in 1891. The building was mostly demolished in about 1955.

The illustration (Fig.1) shows the arrangement of the water tank, boiler, chimney and winding engine with the shaft and head-gear to the west. The majority of the machinery had been removed, probably for scrap and the pit heaps flattened, but the Cornish Engine House at Deep Pit is preserved as a Listed Building.

Jonathan Erskine, AAU

Rodway Hill, Mangotsfield, ST 668 757, SGSMR 13062. An excavation of an area previously subject to a Desktop Study at Rodway Hill was carried out on behalf of South Gloucestershire Council as part of the Avon Ring Road Stage 2 construction.

Work is still continuing on the post excavation work but preliminary results include the location and identification of a large rectangular masonry built Romano-British building of complex design. Sub-floors and drains were still extant. This building appears to have been reused to some extent in the medieval period.

Important evidence of metal working, both smelting and smithing of iron was recovered, using both charcoal and the locally available coal seams. Further work on these industrial residues is in progress. Romano-British field boundaries, ditches and other structures were located, dated by pottery to the 3rd to 5th centuries AD. A trackway was also located with at least one burial in a stone cist and a possible second burial, badly truncated.

This site is closely adjacent to the Romano-British farmstead sites at Emersons Green, Hamlets XII and XIII (Augustus Park), and appears to be an extension of them to the south.

Jonathan Erskine, AAU

OLDBURY-ON-SEVERN

Camp House, ST 6100 9273. A watching brief during groundworks for an extension to a property within the bounds of Oldbury Camp Iron-Age hillfort recorded two postholes and a possible post pad of undetermined date.

Tim Havard, CAT

Westmarsh Lane, ST 6065 9238. Documentary research, analysis of aerial photographs, and topographic survey of an area proposed for incorporation into an enlarged village playing field recorded traces of ridge-and-furrow earthworks and several possible relict field boundaries. This area forms a small part of a larger relict medieval landscape covering much of the foreshore of the Severn Estuary hereabouts.

David Kenyon, CAT

OLDLAND

Oldland Common, St Anne's Church, ST 169 712, SGSMR 13915. An archaeological recording exercise was carried out for the St Anne's Parochial Council on the demolition and rebuilding of a collapsed retaining wall. No significant archaeological deposits or artefacts were recovered. Twentieth century material was not retained.

Jonathan Erskine, AAU

PUCKLECHURCH

Moat Farm, Pucklechurch, ST 6969 7672. A building survey and desktop of barns at Moat Farm, Pucklechurch was carried out. The buildings were recorded photographically and by annotating architect s plans. The present Moat Farm is 17th-century in date and the study revealed that the associated barns represent the 17th-century development of the farm, with later repairs and extensions.

Peter Insole, BaRAS

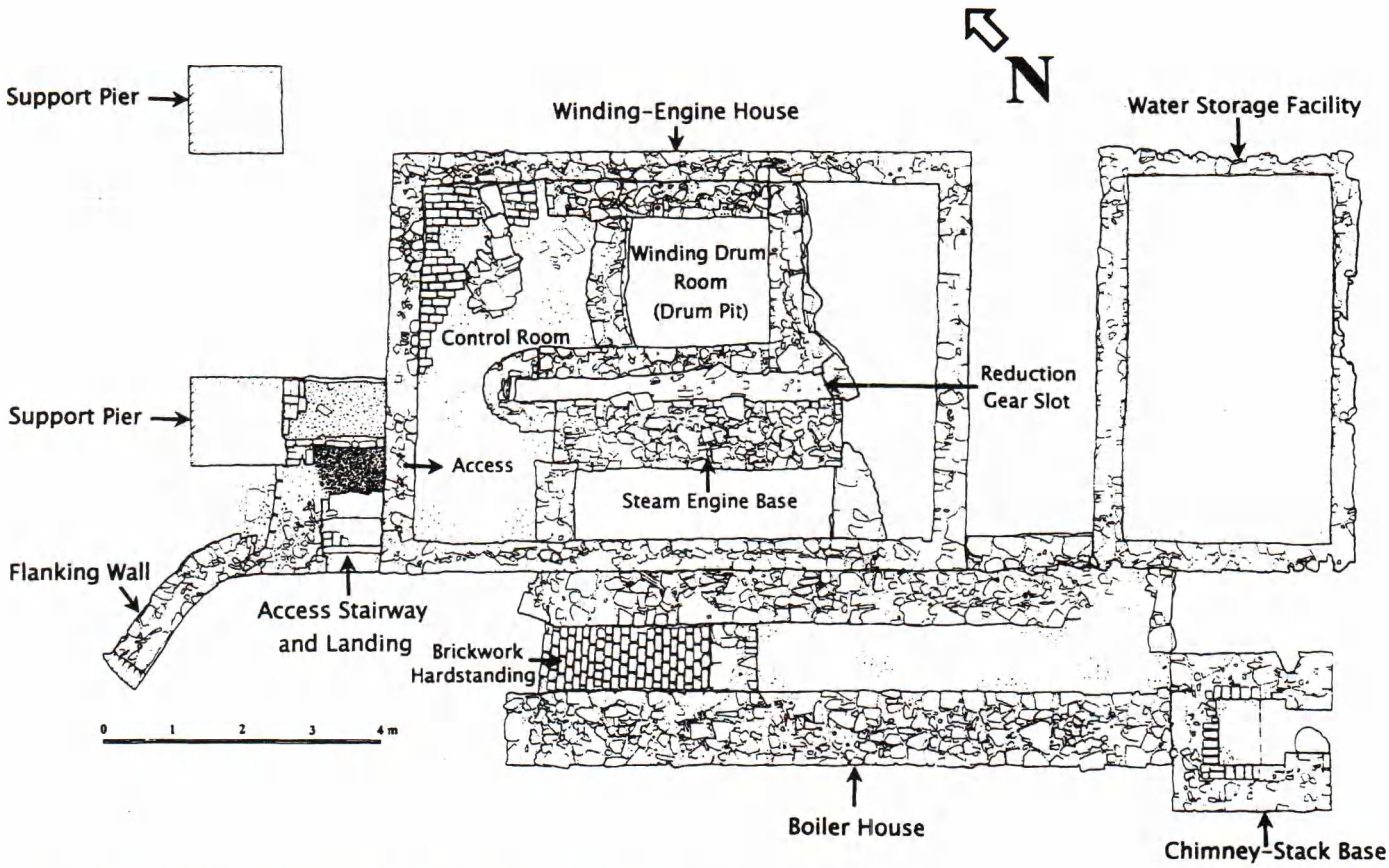


Fig.1 Plan of pit-head buildings, Land Pit, Church Farm, Mangotsfield.

ROCKHAMPTON

Sheppardine, Chapel House, ST 61539624, SGSMR 13949. Excavations for the construction of an extension at Chapel House revealed no significant archaeological deposits apart from an earlier foundation of the 18th or 19th century underneath the present garage.

Jonathan Erskine, AAU

STOKE GIFFORD

Bradley Stoke Way, Bradley Stoke, ST 625 817. An archaeological evaluation carried out on a proposed development site uncovered evidence of Bronze Age and Romano-British settlement comparable to that recorded in adjacent land parcels. This evidence concentrated in three main areas, comprised the truncated remains of post-holes, pits and linear features containing pottery, bone, fragmented Pennant sandstone, worked limestone and metal working waste. The remains of a possible field system, thought to be contemporaneous with the other features, were also located. Much of the archaeology, which was recorded at a very shallow depth, was poorly preserved due to recent ground disturbance.

Adrian Parry, BaRAS

Savages Wood Primary School, Bradley Stoke, ST 621 818, SGSMR 13429. A desk-based research programme and an archaeological evaluation for the South Gloucestershire Property Consultancy produced the following results.

The green-field site proposed for redevelopment as a school is on the site of a possible early road way and was closely adjacent to the Savages Wood Bronze Age settlement previously excavated (Erskine in BAA 12).

The site had been damaged by previous development work and the information recovered was limited to three sherds of medieval pottery and one sherd of heavily abraded prehistoric pottery.

A small group of pits, a truncated ditch and gully did not provide any diagnostic finds. Modern field drains were also located. No indications were located of the postulated early track-way.

Jonathan Erskine, AAU

THORNBURY

St Mary's Church, (Castle Street), Thornbury, ST 634 906, SGSMR 14027. Excavations for the installation or floodlighting cables and supports were carried out for Thornbury Town Council. Most excavations were limited to depths of 300mm or less, well within the topsoil. Some late post medieval sherds were recovered of very low significance. No structures were seen apart from the edge of a brick-built grave. Human bones recovered were re-interred in the Thornbury Cemetery.

Jonathan Erskine, AAU

Turnberry House, Castle Street, Thornbury, ST 63597 90263. A watching brief was carried out in the garden at the rear of Turnberry House. No archaeological features, deposits or artefacts were revealed. The natural Dolomitic Conglomerate was found to be located at quite shallow depth and this was overlain by garden soil.

Jayne Pilkington, BaRAS

TORTWORTH

Tortworth Court, ST 693 925. Archaeological and architectural recording was undertaken during the refurbishment of the buildings designed by Samuel S Teulon and dating from 1849-52. A watching brief during internal and external groundworks revealed no pre 19th-century deposits.

Alistair Barber, CAT

WESTERLEIGH

Ruffet Road, Westerleigh, ST 6670 7965. A multi-disciplinary archaeological fieldwork programme was carried out at this site in order to establish its archaeological significance and potential. An archaeological desktop study had previously identified the site as being at the centre of a historically important coal-mining area dating back to the 17th century. Several earthworks believed to represent the remains of possible bell-pits and drainage features were surveyed as the first stage of the programme. A geophysical survey was then carried out to locate further features and structural remains associated with coal-working. The final stage of the assessment was to excavate trial trenches in areas of archaeological potential highlighted by the geophysical survey. Six archaeological trial excavation trenches were excavated on the site of suspected bell-pits and associated rubble spreads. Four of the trenches were found to contain archaeological evidence of coal-working activity (upcast spoil, coal dumps, bell-pit remains and possible building construction trenches) although the features and deposits in question could not be properly characterised or dated. Earlier archaeological activity of an unspecified date, in the form of a small pit, was also recorded on the site.

Adrian Parry, BaRAS

YATE

Yate Court, ST 71304 85934. A desk-based archaeological assessment of a site at Yate Court, Limekiln Lane was undertaken. The Court was a medieval fortified manor house within a moat, surrounded by its own deer park. Improvements were made during the time that the Berkeley family were in residence, from 1491 until well into the sixteenth century. A detailed survey from 1548-49 survives. Some of the moat is still wet, and ruins of some of the medieval and post-medieval structure remain, with part incorporated within the present farmhouse. The study area includes a sixteenth century and later barn and, adjacent, remains of buildings that lined the edges of the base or outer court. Part of a substantial wall, probably once the curtain wall, survives along the eastern side of the development area. On the inside of the moat to the south of the barn is a quadrant-shaped feature, perhaps the base of a tower.

John Bryant, BaRAS

GLOUCESTERSHIRE

Frocester Court Farm, Frocester, SO 795 028, STGCM 2000/23. An archaeological watching brief was carried out at the locations of shafts for temporary overhead supports near Frocester Court in April 2000. The fieldwork was undertaken as a Romano-British settlement indicated by building material, a 4th century coin and domestic refuse (at SO 794 027) is suspected in the same field as the shaft locations.

These adjacent locations lie at the foot of the Cotswold escarpment. No archaeological remains were revealed by the watching brief.

Jens Samuel, BaRAS

Hillesley Farm, Hillesley, ST 76675 89850, STGCM 2000.24. An archaeological evaluation on a site at Hillesley Farm, Hillesley was carried out. Six trenches were excavated, each revealing archaeological features. The earliest of these were undated, whilst a putative buried soil horizon suggested the existence of an 11th/12th-century field system. This had previously been recorded during an excavation by BaRAS to the east of the site in 1997. A bank and ditch structure appeared to relate to later post-medieval changes to field boundaries.

Simon Cox, BaRAS