BRISTOL & AVON ARCHAEOLOGY

Volume 14

BRISTOL AND AVON ARCHAEOLOGY 1997

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Cover: St.James's Church and Silver Street, Bristol, 1824, a watercolour by Edward Cashin from the permanent collection of Bristol Museums and Art Gallery. The skeletons found during work at St.James's Place were found centre right of the picture.

Typeset by Bristol and Region Archaeological Services
Design by Ann Linge
Printed by Printing and Stationery, 9 Willway Street, Bedminster, Bristol
May, 1999

ISSN 0263 1091

Membership and Editorial Communications to Bristol and Avon Archaeological Society, c/o Bristol City Museum and Art Gallery, Queens Road, Bristol, BS8 1RL

AN ARCHAEOLOGICAL INVESTIGATION ON THE SITE OF THE FORMER BATH CHRONICLE PRINTING WORKS, 31-35 WESTGATE STREET, BATH, 1997

by Andrew Crutchley and Marek Lewcun

HISTORICAL BACKGROUND

Although it is not known whether there was a Roman precursor for Westgate Street, it is clear from Romano-British remains discovered from time to time that this area of Bath was intensively occupied in Roman times. The nature of those remains, which include at least three mosaics, strongly indicate that this quarter of the walled area was of high status during this period of the city's history.

A growing corpus of evidence also indicates that this part of the city was intensively occupied from at least Late Saxon times; the property and topographic layout, although much modified during the course of the last century, preserves the Saxon pattern in some detail (Greening 1971; Bell 1996; Davenport *forthcoming*). For example, Westgate Street (formerly West Street), together with Cheap Street (formerly Souter Street) is the main east-west street of the early medieval town and was almost certainly laid out in the late 9th century when the Saxon burh was founded by Alfred the Great. The two lanes that run north from Westgate Street and define the block in which the printing works stand (see Fig.1) probably date from the same period.

By the early 17th century, as shown on Speed's map of 1610, the site was extensively built up on the south, west and east sides. Houses, shops and lodgings fronted the three thoroughfares with garden areas being laid out behind, although at least one building occupied a part of the centre of that block by this time. This pattern continued with little change, except for the sub-division of some of the properties, until the beginning of the 19th century when the north side of Westgate Street was cut back by 18 inches due to road-widening. By 1871 the property, although under one ownership, had been sub-divided into several smaller, interlocking rented holdings. The site was gradually acquired by the Wessex Newspaper Group during the course of the 1920s and 1930s.

INTRODUCTION

Archaeological investigation of the former Chronicle Printing Works by Bath Archaeological Trust took place in two phases, before and during redevelopment of the site.

Between April and June 1997, Mike Heaton excavated six evaluation trenches (Nos. 1-6, see Fig.1) (Heaton 1997). In response to a design brief from Bath and North East Somerset Council, the trenches were designed to sample the nature of the archaeological deposits present on the site and to establish the state of their preservation. Their excavation revealed evidence for activity on the site spanning the period from Romano-British times right through to the present century, although the nature of that activity was not always entirely clear.

A second phase of archaeological investigation was undertaken in the autumn of the same year by Marek Lewcun. The limited intrusion into archaeological deposits required by the development necessitated only the undertaking of a watching brief by BAT, with particular reference being paid to two main areas, Area 7 in the east and Area 10 in the west (Fig.1). In fact, limited, archaeologically controlled excavation was possible.

Excavation of Area 7, which comprised a small, square, uncellared block in the south-west corner of a building belonging to a tenement fronting Parsonage Lane, revealed an isolated area of rare stratified archaeological survival that provided a continuous sequence of layers from post-Roman times through to the present day. Given the poor survival of medieval deposits in central Bath owing to the destructive effects of cellaring in the 18th and 19th centuries, these deposits were of considerable importance.

Area 10 covered most of the north-western portion of the site, particularly the area to the rear of Nos. 17-21 Bridewell Lane. Demolition had left a large open area, the eastern boundary of which was the west wall of the remaining buildings fronting Parsonage Lane to the east (Fig.1). This wall is on the line of the original divide between those tenements fronting Bridewell Lane to the west and those fronting Parsonage Lane to the east (Davenport 1997). Excavations were carried out in two main areas in the north-east quadrant (A and B on Fig.1). Given the very limited area of this part of the site that was available for excavation, it should be noted that interpretation of the features and deposits is extremely difficult and, in some instances, somewhat conjectural.

THE ROMANO-BRITISH PERIOD

The evidence for Romano-British activity on the site was generally found in the trenches dug from cellar floor level (Nos. 1-4) during the evaluation stage of the investigation and can best be summarised by breaking it down into individual phases.

Phase 1 (Figs.4 and 5)

In the case of Trenches 1 to 4 the earliest deposits which were encountered referred to a reddish-brown, clay-rich soil, which displayed evidence of having developed under an established ground surface (Heaton 1997). This soil was

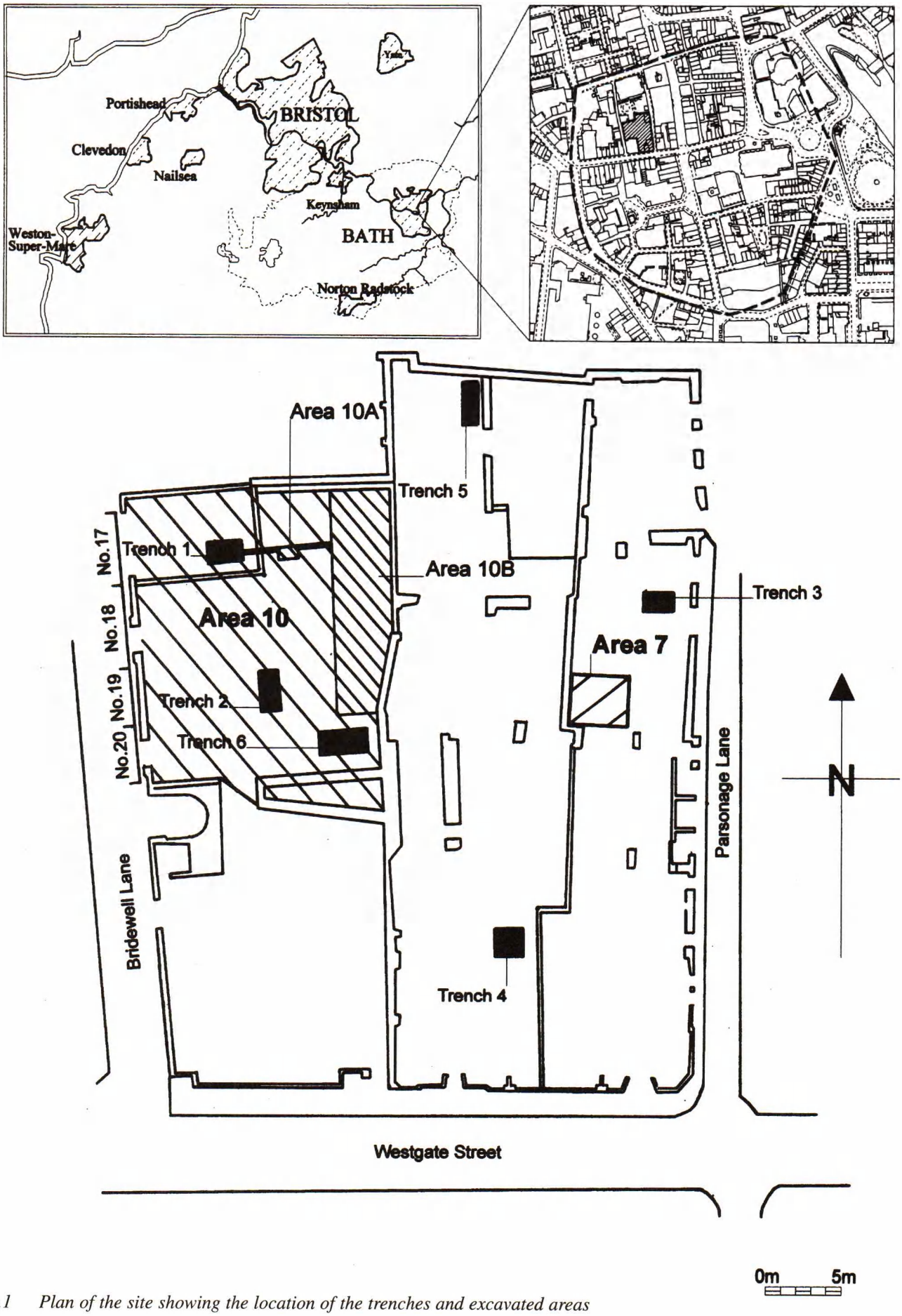


Fig.1 Plan of the site showing the location of the trenches and excavated areas

considered to represent the 'Old Ground Surface' and, in the case of Trench 1, had an upper level of survival at 22.27m OD, whilst in the south-east corner a datum of 21.65m was recorded in Trench 4 (Heaton 1997).

The earliest evidence for Romano-British activity on the site is represented by the superimposition of two or three layers of this material, which is indicative of mass soil movement or the continued development of deep turf swards, in Trenches 3 and 4. This activity can only be reliably dated in Trench 4, where two layers of this material [0414 & 0412] sandwiched between them a distinct charcoal-rich layer [0413], which contained large quantities of animal bone and Samian ware and produced pottery sherds of late 2nd and early 3rd century date. The complete absence for evidence of buildings or occupation is particularly noteworthy and suggests a striking contrast with the compelling evidence for (intensive), high-status occupation immediately to the west, north and east of the site at this time (see Cunliffe 1969).

A similar situation is found in the north-eastern corner of the site, where excavations revealed that the earliest definable evidence for activity was represented by a change in soil-formation processes overlying the clay-rich soils of the 'Old Ground Surface'. This appears to have occurred gradually and as a result of a prolonged accumulation of sand-rich soils [0307-0311], rather than simply as one episode of dumping to make-up the ground level, because there is no marked discontinuity between the two soil types. These layers contained only Romano-British pottery of mid 3rd to early 4th century date, although a fragment of a glass 'melon bead' (SF 3) recovered from the lowest of these deposits [0311] was probably of 2nd century date (Clarke, see below).

Phase 2 (Figs.2, 3, 4 and 5)

Directly overlying the sand-rich soils evident in Trench 3 was a surface of compacted, crushed Bath-stone approximately 0.12m thick (Fig.4 : 0306), whilst in the south-eastern corner excavation of Trench 4 showed that a succession of crushed stone surfaces and their associated rubble make-up layers [0409-0411] had been laid out on top of the re-worked ground surface. These surfaces were consistently dated to the 2nd or 3rd enturies AD, which fits well with the date-range given for the soil layers that they overlie.

Although this change of land-use along the eastern fringe of the site might be taken as an indication that late Romano-British building activity was increasing to take in all the available land in this area of the city at this time, the essentially insubstantial and rudimentary nature of these surfaces is perhaps more likely to imply that these parts of the site remained on the margins of occupation and were perhaps utilised either for domestic structures of a very basic nature or for working areas to the rear of properties. In considering this point, we can compare the results of excavations beneath the Abbey Heritage Centre, which showed that pewter-working was taking place in workshops to the rear of individual retail establishments during the 3rd and 4th centuries (Bell 1996).

Although no incontrovertible evidence was recovered for the presence of in situ structural components, the excavation of Trenches 1 and 2 revealed a succession of surfaces (and possible make-up layers), which strongly suggested that these areas had supported a higher density of occupation than on the eastern portion. However, given the small area that was sampled, little more can be said at present.

In Trench 1, what appeared to be a (court?)yard surface had been laid out directly on top of the reddish-brown, sandy-clay loam that formed the ground surface at this time. It comprised two distinct layers of bedded, cobble-sized limestone blocks [0115 & 0117] set within a thick matrix of crushed stone [0118] and cambered on a south-west to north-east axis, although its south-western half was not observed as a result of the limited area of investigation. Its upper surface of highly worn cobbles [0117] was of at least three phases, forming makeshift repairs to ruts and holes in the crushed stone bedding. Despite the presence of small fragments of tile and Samian ware within the crushed stone matrix, its date and, indeed, its exact function remain unproven. Its north-eastern boundary may have been defined by a wall. However, the evidence consisted of no more than a putative construction trench for a wall and the detritus that represented its later robbing and this must therefore remain a very tentative suggestion.

In Trench 2, further evidence for the presence of masonry structures was uncovered. In this instance, at least two internal floor surfaces had been laid out on the contemporary ground surface. The earlier of the two which were definitely identified [0220/0221] consisted of a relatively thin spread of compacted crushed stone laid out on a base of white sand/lime mortar, for which pottery evidence supported an early to mid 3rd century origin. It had a well-defined burnished finish to its upper surface, presumably the result of intensive use, and displayed traces of a pronounced linear depression, which may have served as a rudimentary drainage channel. Later on, probably during the mid to late 3rd century AD, this floor was replaced with a much thicker spread of compacted yellowish-brown sand/lime mortar [0212-0214]. Variations in texture and colour in its surface suggest either repairs for routine wear and tear or, rather more intriguingly, ephemeral and non-intrusive structural divisions that were not otherwise apparent.

This later surface also displayed evidence of burning within a defined area in its south-eastern corner [0214], although there was no suggestion that this was associated with a hearth of any description. Perhaps of greater significance however, was a small, conical pit which had been cut through this floor surface near to the area of burning. It had been filled with coal and, taken together with the burning, possibly implies a phase of small-scale industrial activity. Unfortunately, no evidence with which to date this feature has been forthcoming, but in stratigraphic terms it is likely to have been short-lived given that it was effectively sealed by a localised repair to the floor

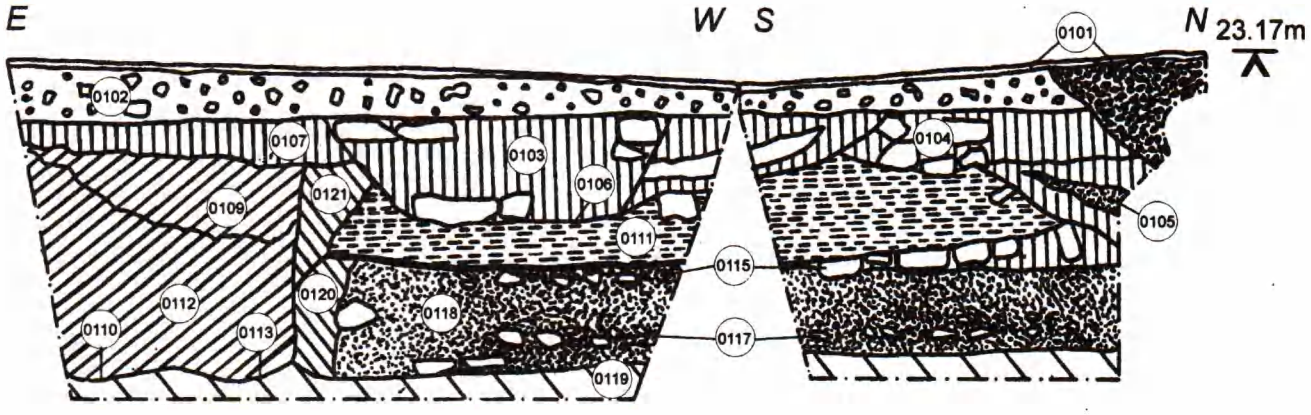


Fig.2 Evaluation Trench 1: Composite north and east facing section

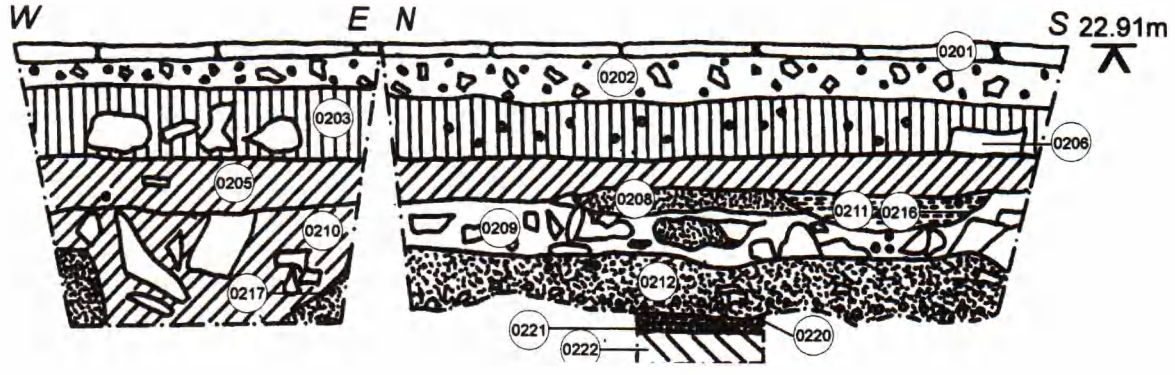


Fig.3 Evaluation Trench 2: Composite south and west facing section

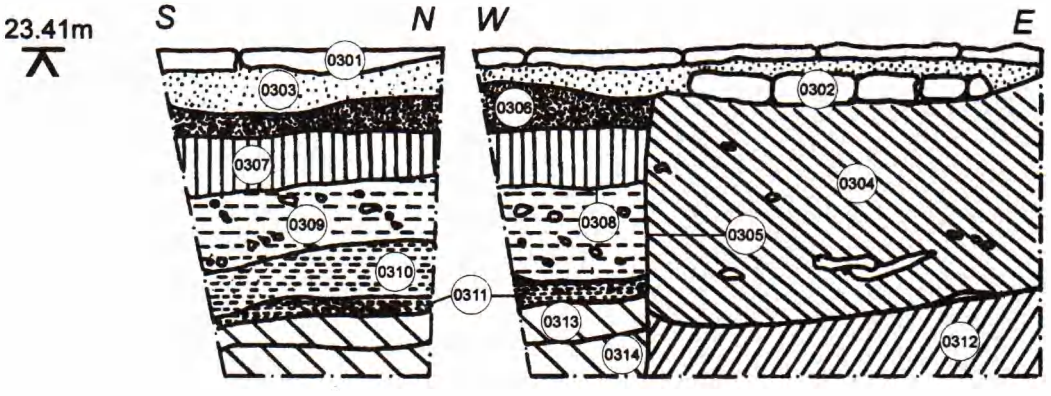


Fig.4 Evaluation Trench 3: Composite east and south facing section

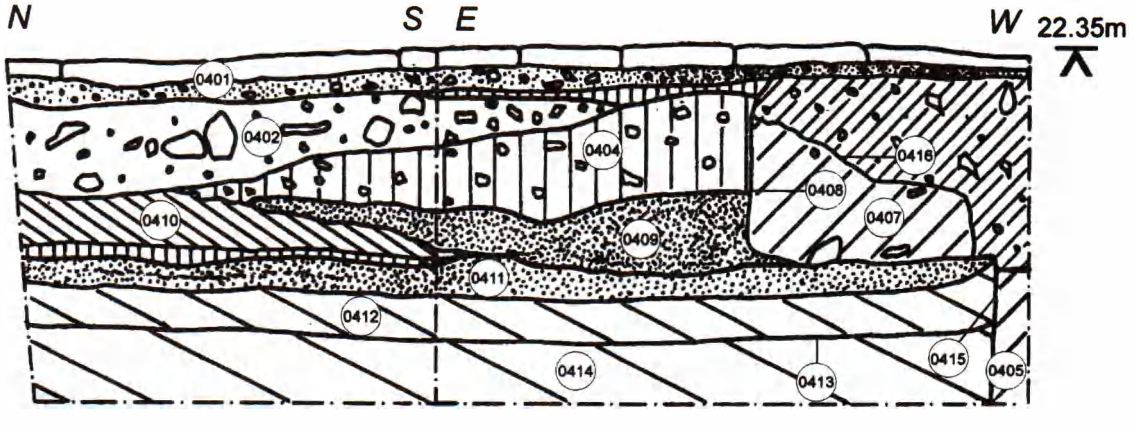


Fig.5 Evaluation Trench 3: Composite east and south facing section

surface itself [0218], indicating that the floor was still in use when it was dug and subsequently backfilled. The floor itself probably went out of use during the later part of the 3rd century or the early part of the fourth because it had been sealed beneath a layer of fairly 'sterile' rubble [0209], which contained only pottery of that date.

Phase 3 (Fig.3)
This relatively thick layer of rubble [0209 & 0208] consisted of large, flattish Bath-stone and Lias limestone blocks lying stacked roughly parallel with each other and interspersed with lenses of compacted beige sand/lime mortar. This rubble seems to have been collapsed wall material, lying where it had fallen. Cut through this building debris, as well as the floor it overlay, were two pits of relatively shallow proportions [0216 & 0217]. Although neither was datable in itself, their importance lies in the fact that they indicate continued activity on this part of the site after the abandonment of the masonry structures which stood on it and before the accumulation of the second collapse layer [0205, see below]. However, of utmost importance is the implication that the character of the usage of this area of the site changed markedly at this time.

Phase 4 (Figs.3 and 8)
At the evaluation stage of the investigation the only evidence for the last phase of Romano-British activity on the western part of the site was recovered from trench 2. This related to the deposition of a 10-20cm thick layer of building debris across the whole Trench [0205]. Although essentially similar in composition to the layer of building debris that overlay the latest floor surface (0209 & 0208), it differed in that the large blocks of Bath-stone and Lias limestone were randomly orientated within a loose, black silty loam. A late 3rd or early 4th century date for this material's deposition is postulated and evidence from the pottery contained within it would strongly support this assessment.

Its strikingly level upper surface and close proximity to a mortar floor of probably post-medieval origin [0204] does suggest the possibility that this second layer of building debris is, in fact, simply 'imported' make-up material for that floor and the building with which it was associated. However, the similarity in composition between the two rubble layers [0208/9 and 0205] and the narrow date-range for the pottery contained within the latter does suggest that it is indeed an *in situ* late Romano-British layer levelled off during the post-medieval period in order to lay down the floor surface.

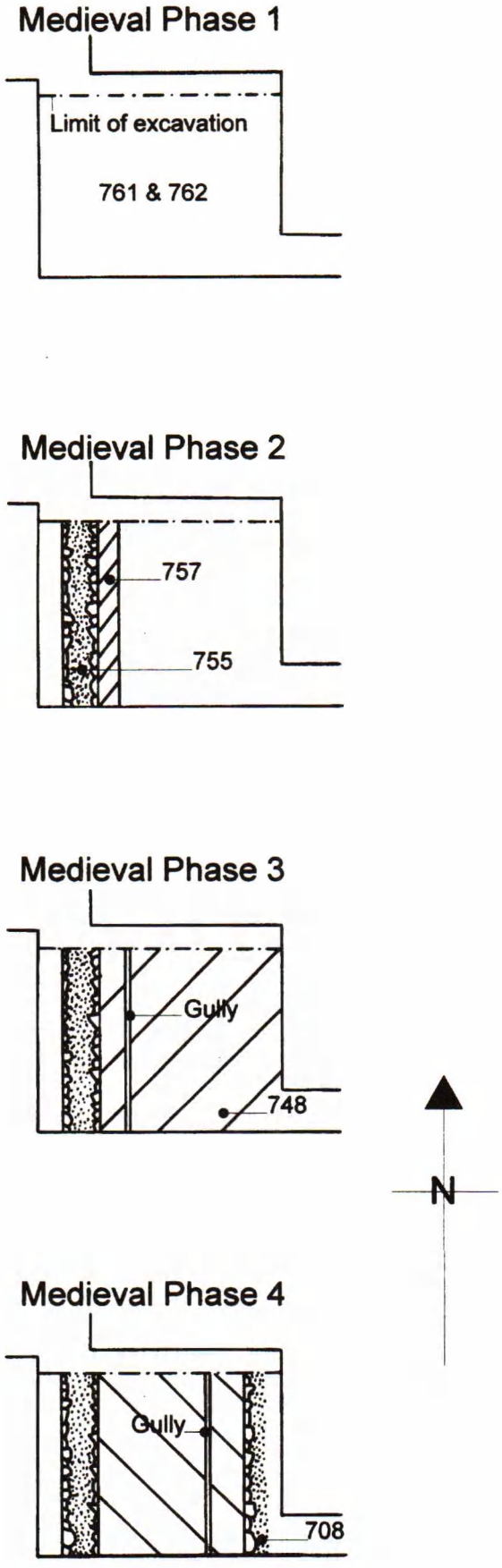
Although the origin of this rubble layer cannot be established beyond dispute, there is further compelling evidence that Romano-British activity continued to the rear of the Bridewell Lane frontage at least until the later years of the 4th century and probably into the early part of the fifth.

The evidence is somewhat tantalising and consists only of a small area of dark grey, charcoal-rich silt [1070], uncovered in the north-west corner of the site, which produced pottery of late 4th or early 5th century style. With regard to the integrity of this layer, its datum of 22.95m comfortably places it within the parameters of the later Roman deposits that normally occupy that horizon approximately 0.6m above the natural ground level of 22.27m observed in evaluation Trench 1 and which follows the gradual slope between known deposits in Bath Street to the south and Upper Borough Walls to the north. It had been sealed at a later date by the deposition of two layers of material dipping away to the east as if filling in an unseen feature of some description. The lower of the two was a mixture of gravel, grit and crushed stone containing fragments of undatable Romano-British pottery and rooftile[1069]; whilst the upper was a 'brown gritty loam' [1068] from which sherds of 2nd and 3rd century pottery were recovered. Although the pottery in this context must be residual, the actual deposition of this material does at least indicate that there was activity on this part of the site between the later Romano-British and early medieval periods even if it is not possible to define exactly what the nature of that activity was.

The Post-Roman Period
The excavation of cellars during the 18th and 19th centuries has done much to restrict the survival of medieval deposits within the centre of Bath as a whole (Davenport, *forthcoming*) and the Westgate Street site has not been spared from the effects of this destructive activity. As Fig.1 shows, the damage caused by the excavation of the extensive cellars on the site has been pronounced, with only relatively small areas of medieval stratigraphy having apparently been left undisturbed. However, by focussing attention on such areas it has been possible to recover precious information regarding the development of this small part of the city during the medieval and post-medieval periods.

Medieval
The existing street pattern of Westgate Street running east to west with Bridewell Lane, in the west, and Parsonage Lane, in the east, running north off it appears to be of Late Saxon origin (Greening 1971) and provides the framework for activity on the Westgate Street site throughout the medieval period. Historical evidence for property tenure starts to become available in the 13th century, and by the 16th and 17th century it is possible to relate the archaeology to the documentary evidence for land holdings.

No attempt will be made to discuss the sequences in Areas 7 and 10 in tandem, as this implies the presence of more information on the relationship than is actually available. With this in mind, we shall attempt to define the nature of activity in both Area 7 and Area 10 and show how this changed from post-Conquest times through to the end of the 16th century, which, for the purposes of this report, has been taken as the point when the post-medieval period begins.



Figs.6i-6iv Phase plan showing the development of Area 7 during the medieval and post-medieval periods

Area 7 (Figs.4 and 5)
Excavations within Area 7 commenced at a level post-dating the Norman Conquest, with 12th-century deposits being the earliest excavated. However, at the initial evaluation stage both Trench 3, to the north, and Trench 4, to the south, revealed slight evidence for possible Late Saxon activity. In Trench 3, a cess pit [0305] probably dug during either the 11th or 12th century and which was cut through Romano-British layers, contained within its lower fill [0312] sherds of pottery of 11th century date. In the case of Trench 4, towards the southern limit of the site, pottery of probable 11th century, or possible 10th century, date (Burchill, see below) was recovered from a layer of made ground with a datum of 21.95m. The layer itself [0404] consisted of a mixed deposit of stone fragments, clay and loam, which was predominantly pale grey in colour (Heaton 1997). Given that it sealed the last of a series of Romano-British floor surfaces and was itself sealed beneath an east-west wall [0403] of medieval or post-medieval date, this layer does seem very likely to be an *in situ* deposit of Late Saxon material. There must remain the slight possibility, however, that it is merely imported material dumped on site in order to make up the ground level prior to a late phase of building work, but within the city centre the paucity of evidence for activity during this period makes such deposits definitely worthy of note.

Medieval Phase 1 (Figs.1, 6i and 7)
Although there is evidence for activity within the part of the tenement fronting on to Parsonage Lane which is represented by Area 7 (see Fig.1) in the 12th to early 13th centuries, the nature of that activity is unclear. Silts and loams [0762 beneath 0761] formed the earliest medieval layers identified on this part of the site and contained pottery of mid 12th to early 13th century origin, but only a very small part of this layer was exposed. However, it is apparent

Plate 1 Medieval Phase 2 wall and cobbled strip, looking south-west. In section behind the 1m ranging rod can be seen, from the bottom, the Medieval Phase 3 and 4 floors sealed by the Medieval Phase 5 wall and, finally, the remains of 19th century floor surface at the top

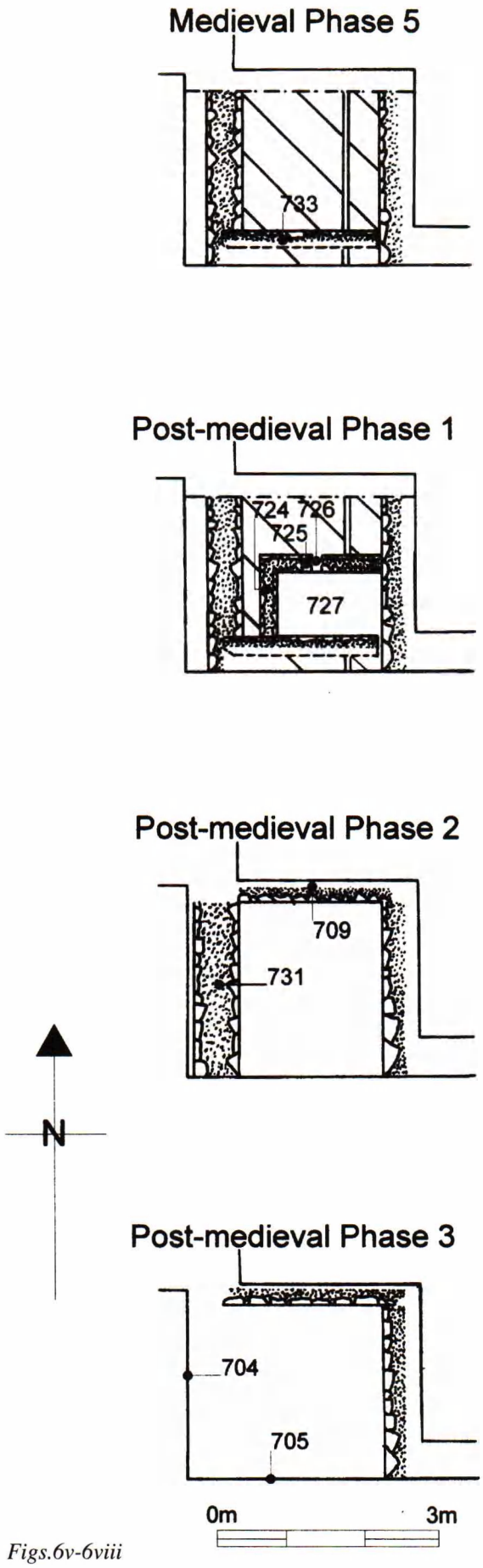
that as the 13th century progressed (Fig.6i) this part of the site became the focus of intensive use.

Phase 2 (Figs.6ii, 7 and Plate 1)
The earliest structural feature is a wall [0755] which runs north-south along the western side of the excavated area. It had been largely robbed-out on its east face, but its west face of limestone blocks remained essentially intact. The very narrowest of gaps allowed only limited investigation of the deposits which had accumulated against its west face [0765, 0764, 0760]. The latest contained pottery of 14th century date. The soils are probably the result of cultivation of gardens to the rear of the property. In other words, wall 0755 almost certainly formed the rear wall of a structure fronting Parsonage Lane to the east.

From the east face of the wall, a narrow strip of very worn cobbles (see Fig.6ii & Fig.7: 0757) dipped away towards Parsonage Lane to provide drainage. It was clearly contemporary with the wall's construction and formed the earliest of a series of yard surfaces in this particular tenement. Its very straight eastern edge (see Plate 1) is noteworthy as it suggests that either it butted a surface of larger blocks that were subsequently robbed-out, or bordered the edge of an unpaved area of ground.

This cobbled surface appears to have been heavily used up until the early part of the 14th century and consequently a series of occupation layers had built up on top of it [0756, 0755 & 0754]. The earliest was a fine, dark brown, slightly gritty loam [0756], which was sealed by a layer of gritty soil [0753] that contained quantities of mussel shells. The pottery recovered from the two layers suggested that they had been deposited during the period from the late 13th century to the middle of the fourteenth. The thin deposit of fine grey silt [0754] which formed the uppermost layer in this part of the sequence was probably also of similar date.

Plate 2 Section showing the sequence of floors and walls, looking south. The 0.5m ranging rod rests just above the Medieval Phase 3 floor, with the remains of the Medieval Phase 4 floor clearly visible just above it. The 2m ranging rod rests on the Post-medieval Phase 3 (19th century) floor and above it, top-right, the blocked-in doorway can be seen in the south wall



Figs.6v-6viii

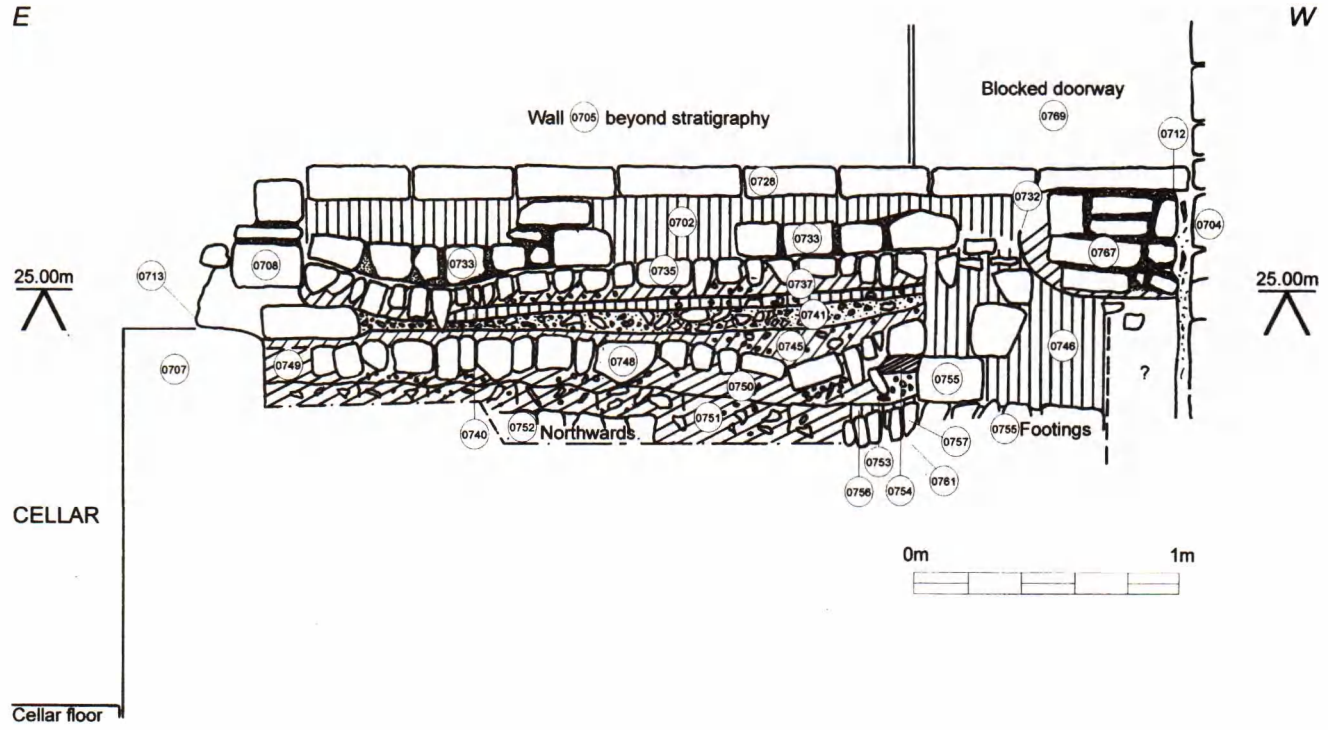


Fig.7 Section from east to west through Area 7

Plate 3 Medieval Phase 4 floor, with its eatsern drain towards the left of the view, looking south. The 2m ranging rod rests on the early 19th century floor, whilst the 1m ranging rod rests on the edge of the Post-medieval Phase 1 pit

Phase 3 (Figs.6iii, 7 and Plate 2)
The beginning of Phase 3 is marked by the laying out of a new surface [0748] of tightly packed, narrow, rectangular limestone cobbles (Fig.6iii), noticeably different to the small, thin limestone fragments used in the Phase 2 surface, on top of a relatively thick layer of loam [0750] that produced quantities of pottery which supported a construction date in the second half of the 14th century. Cambered on a North/South axis and with a drainage gully on its west side formed of fragmented limestone slabs aligned similarly (see Plate 2), this surface was also heavily worn in a manner indicative of intensive use. It clearly utilised the Phase 2 wall as its western boundary. A curious feature of this surface was that towards the eastern end the camber finished and it continued level, perhaps to the front wall of the tenement, although this area has been removed by cellaring.

Given that it contained only 14th century pottery, the deposit of soil [0745] that sealed the Phase 3 cobbles probably represents the accumulation of waste and general detritus over the course of the surface's long working life, rather than being indicative of its demise. However, it does seem to be the case that by the later part of the 15th century or, more probably, the early part of the 16th century, the Phase 3 cobbles had become obsolete, perhaps due to the level of the lane and the land fronting it in the immediate vicinity having risen significantly. Consequently, they were superseded by a new surface of similar style [0735].

Phase 4 (Figs.6iv, 7 and Plate 3)
The new cobbled surface [0735] was associated with the construction of a new north-south wall [0708] on the eastern side of the excavated area (Fig.6iv). This ran parallel with its Phase 2 counterpart which formed the rear wall of the tenement fronting Parsonage Lane and it may perhaps have been inserted to divide, say, the stabling from the domestic areas within the building and, therefore, may indicate a change in the utilisation of internal space.

The cobbled surface itself was of similar construction style to its predecessor but with a shallow, 'V-shaped' gully aligned north-south and running along its eastern side (see Fig.11), which perhaps indicates a change in the use of land to the south. The southern edge of the surface could not be identified because it extended beyond the area of excavation. Directly overlain by the Phase 4 cobbled surface was a thin layer of silty loam [0737], which in turn sealed a gully [0739] of indeterminate function. It was constructed on exactly the same alignment as the later drainage channel of the Phase 4 surface, but terminated within the confines of the excavated area. It was not apparently associated with a deliberately constructed surface of any description and may have been a stop-gap drainage system for the period between the 'abandonment' of the Phase 3 cobbled surface and the laying out of its Phase 4 'successor', a passage of time which could doubtless have been very short indeed.

Plate 4 The stone-lined pit (Post-medieval Phase 1) looking north-west, showing the apperture at the base of the north wall. The Medieval Phase 5 wall runs along the western side of the photograph

The fill of this feature [0738] which consisted of a dark grey, gritty silt with scattered angular fragments of limestone, produced pottery that strongly supported an early 16th century origin.

Phase 5 (Figs.6v, 7, 8 and Plate 4)
This arrangement appears to have persisted until at least the end of the 16th century and possibly on into the early part of the 17th century. At a later date, possibly shortly afterwards, an east-west wall [0733] of roughly-faced limestone blocks bonded with a gritty yellow-orange mortar, characteristically of 16th or early 17th century date in Bath, was built directly on top of the Phase 4 cobbled surface (see Plate 4) towards the southern edge of Area 7 in order to join the two pre-existing north-south walls and, therefore, divide up this space (Fig.6v). The construction of this wall may have represented the sub-division of the tenement, as the 18th century south cellar wall follows a continuation of its alignment.

Area 10
In contrast to Area 7, there is no *in situ* evidence for activity on the western half of the site prior to the Norman Conquest, but the presence of a handful of residual sherds of Vince's Bath B type (Bristol BPT309) pottery almost certainly date from the 11th century, although a late 10th century origin cannot be ruled out (Burchill, see below). This suggests that there was activity of some description on at least part of the site in the Late Saxon period, even though almost all traces of it appear to have been removed by later activity, for example, the digging of early medieval pits (see Fig.8 : 1073 etc.) to the rear of No. 17 Bridewell Lane.

Medieval Phase 1 (Fig.8)
The first definable phase of activity in Area 10 probably

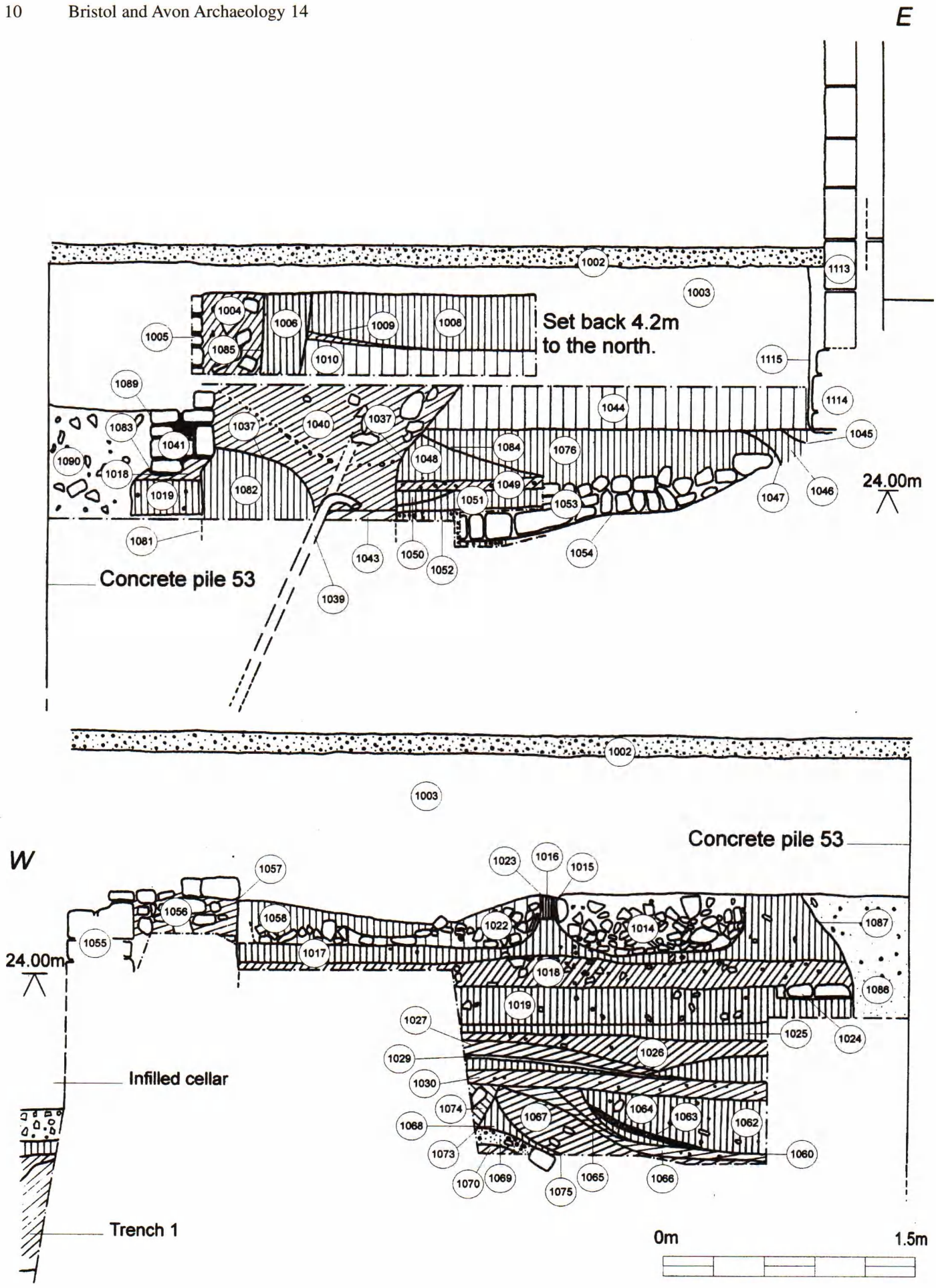


Fig.8 Section from east to west across the north-western quadrant of Area 10

reflects the existence of a north-south boundary between the properties that front Bridewell Lane and the large tenement known later as 33, Westgate Street. This long tenement ran between the former properties and those fronting Parsonage Lane. The evidence of the boundary consists of a cut feature [1047], containing fills 1046 & 1045 (Fig.8), identified at the very eastern limit of the excavated area. Pottery sherds of late 11th and 12th century date were recovered from it. Although there remains the possibility that these features represent a substantial ditch, at present they have been interpreted as a robber trench for a wall running north-south. It seems likely, following the stratigraphic evidence, that this feature did not fall out of use until considerably later in the medieval period, most likely the later 13th or 14th centuries, while its alignment remained a property boundary until the 20th century.

It is not known when this property boundary was laid out, but, as it roughly bisects the insula between Bridewell and Parsonage Lanes, there is a beguiling possibility that it is contemporary with the two lanes, which could well be of Late Saxon origin (Greening 1971). All that can be stated with any confidence, however, is that this feature appears to be of at least early medieval origin and clearly defines the eastern limit of the Bridewell Lane properties. Certainly, all activity in Area 10, from the 11th / 12th century onwards, appears to respect this alignment.

This boundary is depicted on Speed's map of 1610 and is identifiable as the western boundary of 33, Westgate Street by 1641 (Davenport 1997). In the 18th century a substantial new wall [114/1115] was constructed on exactly the same alignment before being subsequently demolished and replaced by the wall which still survives today, a hybrid of early 19th and 20th century date [1113].

Phase 2 (Figs.4, 5 and 8)

As with other medieval sites of this period in Bath (Greene 1979; Davenport *forthcoming*), Area 10 was heavily used for the excavation of pits and disposal of rubbish from late pre-Conquest times through to the late 12th century. The earliest pit encountered [1075] had been re-cut [1060], the fill of the original [1065-1067] seemingly having derived from Romano-British layers through which it was cut, whilst the bulk fill of the later re-cut (the base of which was somewhat higher) consisted of a very dark grey silty loam [1062] and contained pottery that supported a 12th century date. Remains of at least four other similarly-dated pits survived in the area immediately behind the Bridewell Lane frontage. Of the latest [1061], only part of a linear east-west edge and some of its fill survived [1071 & 1072], whilst a second steep-sided example [1073] also cut a further two pits to the east. Although undatable in themselves, a further two rectangular pits observed in evaluation Trench 1, which was wholly contained within the confines of Area 10, almost certainly fit into this phase of activity. This a similar picture to that in the Parsonage Lane properties, where evaluation Trenches 3 and 4 both revealed evidence for the excavation of pits and disposal of rubbish during this period (see Fig.4 : 0305 and Fig.5 : 0408 & 0415).

Although only a small number of pits were recorded, given the tiny area of surviving stratigraphy that remained available for excavation in this area, it seems reasonable to suggest that their density implies quite intensive domestic occupation in the tenements fronting Bridewell Lane.

Phase 3

By the end of the 12th century it seems that the use of the areas to the rear of individual properties for the excavation of pits had ceased to be a common practice and a thick deposit of garden soil [1059] was allowed to accumulate unhindered, suggesting a marked change in the utilisation of this half of the site. Probably during the early part of the 13th century the garden to the rear of what is now 17, Bridewell Lane may have been sub-divided by a relatively insubstantial fence aligned north-south across the plot (see below). It was only possible to suggest the presence of such a feature behind the one property, which may or may not have been typical.

The existence of a fence running north-south has only been inferred from the nature of the deposits in this area of the plot, rather than through the survival of any physical evidence, and cannot be entirely substantiated. The line is represented by the junction of deposits dipping from the east [1028] and from the west [1027, 1029 & 1030]. The former was a layer of soil; the latter group of deposits appeared to be the residues of light industrial activities, the uppermost [1027] containing quantities of slag, and presumably indicate the presence of small workshops immediately to the rear of the tenement that originally stood on the site of 17, Bridewell Lane. This may imply the presence of a fence line designed to delineate these two different activities, but which only partly stopped the movement of material from one side to the other.

The continued presence of this insubstantial boundary to sub-divide the property is attested to by the accumulation of deposits either side of it throughout the first half of the 13th century. However, it appears to have been removed during the mid 13th Century as a series of layers [1026, 1025 & 1019], which do not respect this boundary alignment, accumulated across this area of the property. Its removal may have coincided with the construction of a masonry wall [1024], which may have been its replacement, slightly to the east.

Phase 4 (Fig.8)

During the second half of the 13th century, this wall (1024) of mixed oolitic, Lias and carboniferous limestone blocks was constructed approximately halfway along the plot to the rear of 17, Bridewell Lane. It appeared to be the corner of two walls enclosing an area to their south-east. It had been laid directly on top of the contemporary ground surface and would therefore have been unlikely to have been of any great height. In fact, it is possible that they represent the dwarf walls of a timber-framed out-house, although not enough remained to enable a detailed assessment to be

made. It was probably relatively short-lived because its considerable spread of demolition material [1018] was sealed by a second phase of garden soil accumulation [1016 & 1017 in the west and 1044 in the east], which pottery evidence suggested took place between the late 13th and mid 14th centuries. This build-up of garden soils occurred from the rear of the tenement itself east as far as the linear boundary [1045 & 1046] at the rear of the property. In fact, in the eastern portion of the property a thick deposit of this material sealed the fill of the earliest north-south boundary and may possibly indicate its movement slightly eastwards.

The deposition of these garden soils (particularly 1044) not only sealed the demolition spread (1018) of the dwarf wall [1024], but also a robbed wall [1076, 1053] running westwards from the boundary wall at the eastern end of the property. Its construction clearly post-dated the construction of the main north-south boundary wall as well as the demolition of the dwarf wall a little way to the west and yet it must have been robbed-out by the middle of the 14th century because its robber trench is cut by the later robbing [1045 & 1046] of the boundary wall itself. If the pottery evidence is correctly interpreted, this wall must have been a very transient feature. This may not be an altogether implausible suggestion when its east-south-east to west-north-west alignment is taken into consideration. Although it is almost certainly a property boundary between Nos. 17 and 18 Bridewell Lane, it is on an incorrect alignment and may have been removed when the normal alignment was re-asserted. However, at present this feature remains somewhat anomalous.

Phase 5 (Fig.8)
The uppermost of the garden soils [1016] was cut by the footings of two walls [1014 & 1022] of probable 14th century construction. The first (1014) was of substantial construction and originated from a point to the north of the excavated strip. It terminated just inside the northern limit of the excavated area. A second broadly contemporary, though probably slightly later, wall (1022) butted the first and led away to the west. It had subsequently been robbed-out, probably in either the 15th or early 16th century.

Although it is impossible to be sure, the east-west wall probably represents an old boundary between Nos. 17 and 18 Bridewell Lane. However, the possibility that it was an internal division to create a passageway to the rear of the tenement, where animals were likely to have been kept, cannot entirely be ruled out. The north-south wall (1014) is most likely to have been an internal division. Its position and alignment is noteworthy, given the possibility that it fulfilled the function of the earlier fence to a greater or lesser extent. The possibility, that, with 1022, it represents the east wall of a tenement fronting Bridewell Lane cannot be discounted completely. It is more likely however, that together these two walls formed a new out-house, separated from the line of the property boundary by a narrow passageway. Unfortunately, the poor survival of these features makes any interpretation entirely conjectural.

Phase 6
The only evidence for activity to the rear of the Bridewell Lane frontage in the 15th and 16th centuries concerns the robbing-out of the east-west wall [1012] described above. It does appear to be the case that the substantial accumulation of deposits, at least on this part of the site, seems to have almost ceased by the 15th century, perhaps because rubbish was being removed to areas beyond the city walls by this time.

Post-Medieval: Area 7

Phase 1 (Figs.6vi and Plate 4)
In Area 7, the first major development in the post-medieval period was the insertion of a large, stone-lined pit (0727), which appeared to be contemporary with the later life of the Medieval Phase 4 cobbled surface (see Fig.12), in the south-east corner of the excavated area (Fig.6vi). Walls of neatly coursed, small limestone blocks had been constructed on the west (0724) and north (0725) sides, whilst it utilised pre-existing walls (0708 & 0733 respectively) on its eastern and southern sides. Its exact function remains unclear, though a cesspit seems the most likely. The function of a small aperture (0726) at the base of the north wall, having the appearance of a drain but blanked off by earlier archaeological deposits to the rear of the wall itself, remained unclear. Although this 'drain' serves no obvious function, its provision, when considered in conjunction with some of the earlier material filling the pit itself (0717-0723), might suggest that this feature was designed for the disposal of nightsoil and other waste material.

The pit was probably dug during the first half of the 17th Century, and its final infilling (0716), on the evidence of pottery and clay tobacco pipes recovered from it from it, took place during the 1640-1660 period, and certainly no later than 1670 (Lewcun, see below).

Phase 2 (Figs.6vii, 7 and Plate 2
By 1783 the cellars existing on the site until 1997 were constructed, probably not long before the lease of that date. Wall 0755 had been robbed-out [0747, 0746]. In its stead was built a new north-south wall of large limestone blocks marginally further to the west [0731], the construction trench of which (0732) cuts the robbing of its predecessor. This clearly marks the 18th century rebuilding of the older, medieval property.

The lease plan of 1783 (Bath Record Office, deed packet 2698) shows that at this time Area 7 was roofed and open-fronted to the north, where it connected with the courtyard at the rear of the tenement. It appears to have been a stable. Although this layout continued until at least 1808, it appears to have ceased to function as a stable after 1792. Lease plans show that between 1808 (DP 2698) and 1848 (DP 2698) a wall (0709) was constructed across the northern side of the stable in order to make it a self-contained unit (Fig.6vii), with access provided by a

doorway in the south-west corner (see Plate 2).

Phase 3 (Figs.1 and 6viii)
By the mid-19th century the 18th century wall, 0731, had been demolished because it is quite clearly not depicted on a lease plan of 1848 (Bath Record Office, deed packet 2698). However, its alignment is still extant, preserved further north as the west wall of the 18th century cellars (see Fig.1).

The whole area was incorporated, together with part of the former courtyard, within a single large room extending from the front of the property to the rear (Fig.6viii). This arrangement lasted until the 1920s, when the printing shed, of which the ground floor still exists, was erected.

Area 10 (Figs.1 and 8)
In contrast to the eastern half of the site, there is very little evidence for activity to the rear of the Bridewell Lane properties during the 17th century. However, by contrast, the western half of the site undergoes considerable redevelopment during the 18th century.

To the rear of 17, Bridewell Lane a series of dark soils of early 18th century date had been cut by a number of small features (1105, 1107 & 1109), each of which was filled with a mixture of charcoal and ash-rich loam probably derived from the disposal of night soil. The build-up of dark soils had also been cut by the construction trench for the east wall [1005] of the present cellar.

This cellar was apparently closely associated with substantial changes to the rear of No. 18, where two large linear pits occupied the full width of the property. They were laid out parallel with each other, with the one presumably succeeding the other. The fill of the western pit, where it survived, was not dissimilar to the product of prolonged mineralisation of thermal spring water of Bath. Given that the monopoly on its use was held by the Bath Corporation, the possibility that this was evidence for its illicit use cannot be ruled out. Its source appeared to have been a lead pipe [1035] which seemed to have its origin below the floor in the extreme south-east corner of the 18th-century cellar behind 17, Bridewell Lane. However, it was clearly not primary to the design of the cellar itself and was probably related to either the pumping of water from a well or some form of industrial by-product from a cistern.

The similarity in design of the eastern linear pit to the western one suggests that it was designed to fulfill the same function. Its lowest fill, an accumulation of a lightweight mass of pale brown fibrous material (1034), was possibly the residue from a brewing or refining process. Pottery recovered from it suggested an 18th century date and might imply a connection with the brewery located on the site at about this time (Rodwell 1998).

Further south to the rear of 19, Bridewell Lane, adjacent to the wall dividing it from 33, Westgate Street to the east (see Fig. 1), a series of dark soils (1095/6, 1097 & 1116) had apparently accumulated during the course of the 18th century to partially infill and seal a cellar or large, deep pit (east wall 1102 & robbed south wall 1098) of earlier 18th century date. It was stone-lined on at least two sides, although one had been subsequently robbed-out during the later 18th century, and its later fill of soil was soft enough to preserve two complete bottles which had been thrown into it (Clarke & De' Ath, see below). Cut into the uppermost of these soils (1095/6) were two small, pit-like features (1077 & 1103) which may have been related to the dumping of night soil. These were filled with ash-rich material containing clay pipes of later 18th century date and were apparently contemporary with the robber trench (1098) for the south wall of the cellar or pit

The infilling of the 18th-century pits brought the rear of the tenements up to levels not far below that of the present ground surface. Probably contemporary with this levelling process was the reconstruction of the houses fronting Bridewell Lane, which lease evidence suggests occurred between the 1770s and the 1790s. Consequently, only evidence for minor changes in the 19th century can be found in the lease packets. The tenements finally disappeared with the construction of the printing works in 1923.

CONCLUSIONS

The excavation of the six evaluation trenches during the initial investigation of the site provided a very useful insight into the utilisation of this area during the Romano-British period. As a result of the small size of the individual trenches and their wide geographical spread, both constraints of the evaluation process, it was not possible to define that use in more detail. What is clear, however, is that it was in marked contrast to the evidence for hypocausts and elaborate mosaics which has been recorded from all around the site. The site appears to have been somewhat peripheral to these areas of intensive Romano-British occupation throughout the period, with traces of habitation not appearing until either the 2nd or the 3rd century and then being characterised by relatively insubstantial, probably low-status dwellings or workshops, which declined quite rapidly during the 4th and, possibly, early 5th centuries. However, given the antiquarian nature of the earlier reports, it is not possible to say whether the presumed 4th century mosaics etc. overly similar deposits to those dealt with here.

In contrast, the watching brief was valuable in that it revealed the presence of substantial deposits of medieval and post-medieval material spanning the period from the 11th century right through to the end of the nineteenth. Given the paucity of post-conquest deposits with such a high degree of survival, the information that was recovered was of tremendous importance in a Bath context. It is, however, slightly unfortunate that all the deposits related to the areas behind the buildings which fronted the three main streets at this time and did not enhance our understanding of the nature of the buildings themselves. As is so often the case in the centre of Bath, the excavation of cellars along the street frontages, in particular, during the 18th and 19th centuries had apparently removed all the archaeological deposits that preceded them.

Once again, the areas investigated were small and seemingly unrelated and allow only distinct phases to be identified. For instance, the 11th and 12th centuries are represented by intensive pit-digging, after which space to the rear of individual properties seemed to become more organised and more carefully utilised by dividing it up into discrete areas with fences and walls as the medieval period progressed. This sudden transition may have been both a product of an intensification of domestic activity, which required the more careful delineation of space, and of changing attitudes towards the disposal of rubbish, which enabled householders to more fully utilise the space that they owned.

Such changing attitudes, which were later formalised in 1615 with the appointment of a Scavenger to remove household soil and refuse to the Town Commons (Bath Corporation Minutes, 1615), may have provided the stimulus for an increase in industrial activity during the later medieval period as more space was available for the establishment of small workshops. During the post-medieval period this led to the gradual infilling of that space as domestic and industrial accommodation was more carefully arranged to maximise the area available.

THE CERAMICS

by Rod Burchill

The pottery recovered was fragmentary but generally in good condition. The sherds exhibited only limited evidence for use but were however, able to provide a chronology for the excavated contexts. Out of a total of 919 sherds, 216 (23.5%) were Romano-British, 504 (54.8%) were medieval and 199 (21.6%) were post-medieval in origin.

Although the Romano-British material ranged in date from the late 2nd century onwards, it did not appear to continue much beyond the middle of the 4th century. However, a few fabrics, most notably a shell-tempered ware, might have continued into the 5th century. The pottery consisted entirely of types found throughout the Avon Valley; with black-burnished ware, Congresbury greyware and Gloucester and Severn Valley fabrics dominating that part of the assemblage. Fine wares, mostly from the Oxfordshire industry, were present, but were few in number.

The post-Roman assemblage was dominated by vessels of Vince's Bath A (Bristol BPT46), Bath B and Bath C fabrics. Fragments of at least three vessels with wheel-stamp decoration in a limestone and quartz tempered fabric with clay pellets, sandstone and chert probably belong to group B. This fabric can be matched at Bristol (BPT309), where its manufacture is considered to start as early as 950AD and to continue until c.1100. During the 12th century tripod pitchers were imported from both north-west and south-east Wiltshire, whilst in contrast Ham Green wares were notable by their paucity, with only five sherds of jug fabric being recovered. During the later 13th and 14th centuries vessels in the Bristol/Redcliff fabric made their appearance, but even then they were not plentiful and the assemblage continued to be dominated by the products of north-west and south-east Wiltshire. However, during the 15th and 16th centuries these vessels became rarer and the products of the Somerset kilns, particularly that at Donyatt, became the predominate fabrics. Although cups in the so-called 'Tudor Green style' and black-glazed cups from Falfield were also found, the pre-eminence of the Somerset industry continued into the first half of the 17th century, after which time the little pottery that was in use was largely attributable to the extensive Bristol industry.

The almost total absence of pottery from the extensive Ham Green kilns and the relatively small amounts of pottery from the Bristol/Redcliff kilns, both of which were alongside the River Avon downstream from Bath, is intriguing and confirms the work of others (e.g. Vince 1979) that during the medieval period Bath and the Avon Valley above Keynsham looked east, to the upper Avon and Wiltshire, for their pottery. With the Somerset kilns dominating West Country markets from the 16th century this situation changed, although Bath continued to be at odds with the rest of the Avon Valley by showing a high level of vessels from the Donyatt kilns rather than those of Nether Stowey and Wanstrow, which were dominant further downstream.

THE SMALL FINDS

by John Clarke

A total of 55 small finds were recovered with a date-range spanning the period from the 1st to the 20th centuries and including items of copper alloy, iron, lead, bone, glass and stone.

Small finds which were of Romano-British origin included six coins (SF 2, 16, 17, 18, 20 & 39) of 1st, 3rd and 4th century date, all of which were recovered from much later contexts and are presumed to be residual within them. A fragment of a decorated T-shaped brooch (SF 29), probably belonging to the Developed Polden Hill series and with a probable 2nd century origin (Webster 1995), was apparently residual within a medieval context (0738), whereas half of a melon bead of turquoise faience (SF 3), which is probably also of 2nd century date (Crummy 1983), was recovered from an early phase of soil accumulation (0311) sealed beneath a Romano-British floor surface of 2nd or 3rd century date. A lead disc (SF 30) and a copper alloy tube fragment (SF 37) were both of Romano-British origin, but could not be dated more accurately and were, in any case, recovered from medieval contexts (0740 & 1059 respectively).

There is then a long chronological gap to the medieval period, which is characterised by an assemblage of four Type 2 (SF 28, 32, 34, 35) and one Type 6 (SF 31) copper alloy pins of 14th -16th century date, as well as both a Type 1 (SF 27) and a Type 2 (SF 26) copper alloy lace-end of similar, or possibly slightly later origin (Crummy 1988). In the case of at least a number of the pins (SF 28, 31 & 32) and, in particular, the two lace-ends, their stratigraphic position (0737, 0740 & 0741) certainly suggests a late 15th to early

16th century origin. A decorated bone pin fragment with an oval head and a turning hole set on a collar of two ridges (SF 23), which was recovered from the fill (1099) of a robber trench (1098) for an east-west wall to the rear of 19, Bridewell Lane, was considered to be of late 13th or early 14th century date based on examples found at Southampton (Harvey 1975). The robber trench, however, was considered to have been dug in the 18th century, although it had clearly disturbed late 13th and early 14th century layers.

Post-medieval artefacts include early items such as a copper alloy spectacle buckle (SF 5). Similar examples have been found at Colchester (Crummy 1988) and Exeter (Goodall 1984), with the latter at least being datable to the mid-late 17th century. A plaster-filled button with a gilded copper alloy rim (SF 22) was datable to the earlier part of the 18th century (Hinton 1988), as was a mother-of-pearl and copper alloy button or cufflink (Vitelli 1991). Very late items were also represented in the assemblage and included two copper alloy thimbles (SF 45 & 55) considered to date from the second half of the 19th century (Crummy 1983).

THE GLASS WARE by John Clarke and Paul De'Ath

The glass ware was examined by Paul De'Ath and this report has been compiled from the expert opinions he expressed.

Glass on the site is represented by three bases of cylindrical beakers and, unusually, two unbroken bottles and a cylindrical phial. No material definitely earlier than the late medieval period was recovered and, in fact, for the most part it is of 17th and 18th century date.

The three cylindrical beaker bases of greenish-coloured glass (SF 8, 9 & 10) were all recovered from very late medieval or post-medieval layers (0602 & 0604). Similar examples have been found at Battle Abbey in a late 16th or early 17th century context and were of a type common from the second half of the 16th century and at least the first half of the 17th century (Charleston 1985).

Both complete bottles are of green glass, one pale (SF 41) and the other dark (SF 42), with short necks and 'U-shaped' string rims. In the case of the former, similar examples found in Lambeth (Hinton 1988) and Exeter (Charleston 1984) were dated to between 1680 and 1720, whilst in the case of the latter a date of c.1730 has been proposed (Paul De'Ath, *pers comm*). However, the pale colour and greater delicacy of SF41 compared to wine bottles suggests that it may be an apothecary's flask.

The cylindrical phial (SF 48) is of colourless glass and has been dated to the second half of the 18th century (Paul De'Ath, *pers comm*). This date would tie in perfectly with other examples which have been uncovered in Southwark (Hinton 1988) and Exeter (Charleston 1984).

THE CLAY TOBACCO PIPES by Marek Lewcun

With few deposits of the 17th century onwards excavated, the pipe group from the Westgate Street site is relatively small. Few bowls or their fragments were discovered and thus only the stamped or notable examples are reported here, listed by context. All marks are incuse unless otherwise stated.

Area 7

702 Stem, stamped SAINTS along one side and BATH along the other, c. 1836-1877. From either the Bridewell Lane (1836-1851) or Milk Street (1851-1877) factory of Joseph Saints.

718 Bowl, heel stamped THO/MAS/HVNT, c. 1640-1660. There was at least one, probably two and possibly three makers of this name working at Norton St. Philip and Woolverton (Somerset) during this period.

719 Fragmentary bowl, heel stamped in relief with a fleur-de-lys motif. From the same mould as pipes made by Henry Putly of Norton St. Philip, who was working from as early as 1637 until his death in 1670.

Heeled bowl, unstamped, c. 1640-1660.

720 Partial bowl, heel stamped THO/MAS/HVNT, c. 1640-1660.

722 Bowl, of the large barrel-shaped Bristol style, heel stamped PE, and with 15cm of stem attached, c.1660-1680. Probably made by Philip Edwards the elder of Bristol, who was working 1650-1683.

729 Bowl, heel stamped THO/MAS/HVNT, c. 1640-1660. One of the Thomas Hunts of Norton St. Philip.

Stem stamped RO/CARP/ENTER/BATH, c. 1720-1739. Robert Carpenter worked in Bath from about 1694 until his death in 1739.

Area 10

1008 Two stems stamped RO/CARP/ENTER/BATH, both with partial remains of their bowls, c. 1720-1739.

Fragmentary bowl, heel stamped IOHN/HAR/ES, c. 1698-1710. John Harris was working in Woolverton and Rode (Somerset) from about 1698 until 1707, before moving to Trowbridge (Wiltshire) in 1707/8. He died in 1726.

ACKNOWLEDGEMENTS

The Authors would like to express their thanks to the developers, Restoration South West (RSW), for funding the pro-

ject and in particular Andrew Massey (RSW Project Manager), Gary Coles (Site Manager) and Mike Balloch (Site Engineer) for their co-operation and assistance throughout the redevelopment of the site.

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TWO EARTHWORKS IN THE PARISH OF BITTON

by James Russell

INTRODUCTION

Between 1992 and 1994 a small group of BAAS members and local residents carried out a measured 1:500 survey of the mediaeval earthwork known as "Bitton Camp" on the north side of the village of Bitton, as part of a wider Parish Survey project. The results of this survey are presented here together with new evidence for the function of a second earthwork in the parish, at Park Farm, Oldland.

BITTON CAMP, GOLDEN VALLEY LANE (Avon SMR 1245), (Fig.1)

The earthwork generally known, somewhat misleadingly, as "Bitton Camp" lies immediately to the north side of the village of Bitton on the west side of Golden Valley Lane (NGR ST 682 698). It is located at approximately 22m above O.D. on ground dipping slightly north-westwards towards the River Boyd; the underlying geology is Lower Lias clay. It occupies a field described as "Home Ground" on the Tithe Map of 1843 (Bristol Record Office. EP/A/32 /8; Schedule no. 62) and now used as a public recreation ground; the site is permanently under grass.

In its present state the "Camp" consists of a roughly rectangular enclosure with rounded corners measuring approximately 95m northwest to southeast by 45m northeast to southwest and defined on its northwest, northeast and southeast sides by low banks ranging in height from 40 to 90 cms, and a shallow external ditch. To the southwest the earthworks have been truncated by the present field boundary beyond which lies a complex of modern industrial and earlier agricultural buildings. The enclosure is divided in half by a shallow ditch running northeast to southwest with traces of a bank along its northwest edge. In the northwest half are traces of an internal enclosure, approximately 15m square occupying the northwest corner and defined by slight banks up to 20cms high. Within the southeast half the only visible features are a slight flat-topped ridge running from northeast to southwest, and a small oval mound, probably of recent origin, at its southwest end. Three gaps in the southeast half of the northeast bank are probably all of recent date. Other smaller areas of modern disturbance are visible at intervals along the crests of both the northwest and northeast banks. Those closest to the northwest corner almost certainly represent the site of excavations carried out in June 1952 by G C Boon and discussed further below. The remainder are probably the result of erosion by bicycle riders.

Beyond the northwest corner of the enclosure the line of the northeast bank is continued towards the edge of the field by a slight scarp no more than 20cms high. Approximately 30m north from the enclosure a more prominent scarp, some 40cms high runs across the width of the field, terminating at its western end in a short length of stone footing running southwards.

DISCUSSION

The village of Bitton lies on the route of the Roman road from Bath (Aquae Sulis) to Sea Mills (Abone), (Margary 1973, 138-9; Route 54). Finds of Roman material – tiles, coins, pottery and tesserae are said to have been made south of Bitton High Street in the vicinity of the churchyard and Vicarage garden during the mid 19th century (Ellacombe 1883, 4-5; Avon SMR 1246). Bitton has frequently, though by no means conclusively been identified with "Traiectus " (Crossing point) a place referred to in the 2nd century Antonine Itinerary as being located between Aquae Sulis and Abone.(Rivet & Smith 1979,176-178), The extensive Roman settlements at Somerdale on the south side of the Avon, has also been plausibly suggested as the site of Traiectus (Browne 1987, 1992).

Given the supposed status of Bitton as a Roman "station" it is not surprising that the rectangular earthwork north of the village should have been marked on all 19th and 20th century Ordnance Survey maps as "Roman Camp". This interpretation was however effectively disproved in June 1952 when G. C. Boon excavated three small trenches, cut through the crest of the northwestern bank, revealing an occupation layer of "black soil" 30 – 40cms thick, containing more than 20 shards of 12th and 13th century pottery, below the spread remains of the bank. An adjacent trench further inside the enclosure produced further shards of medieval pottery and a pennant sandstone roof tile of medieval type. No Roman material of any kind was found. Boon's work, coupled with the recent detailed survey of the surface features, suggests the so-called "Camp" in fact comprises the northern ends of two medieval crofts or tenements, probably originally extending as far south as Bitton High Street. The depth of occupation material and quantity of pottery found by Boon suggests that a structure of some kind may have existed in the northwestern corner of the "Camp", perhaps defined by the squarish internal enclosure of which faint surface traces are still visible.

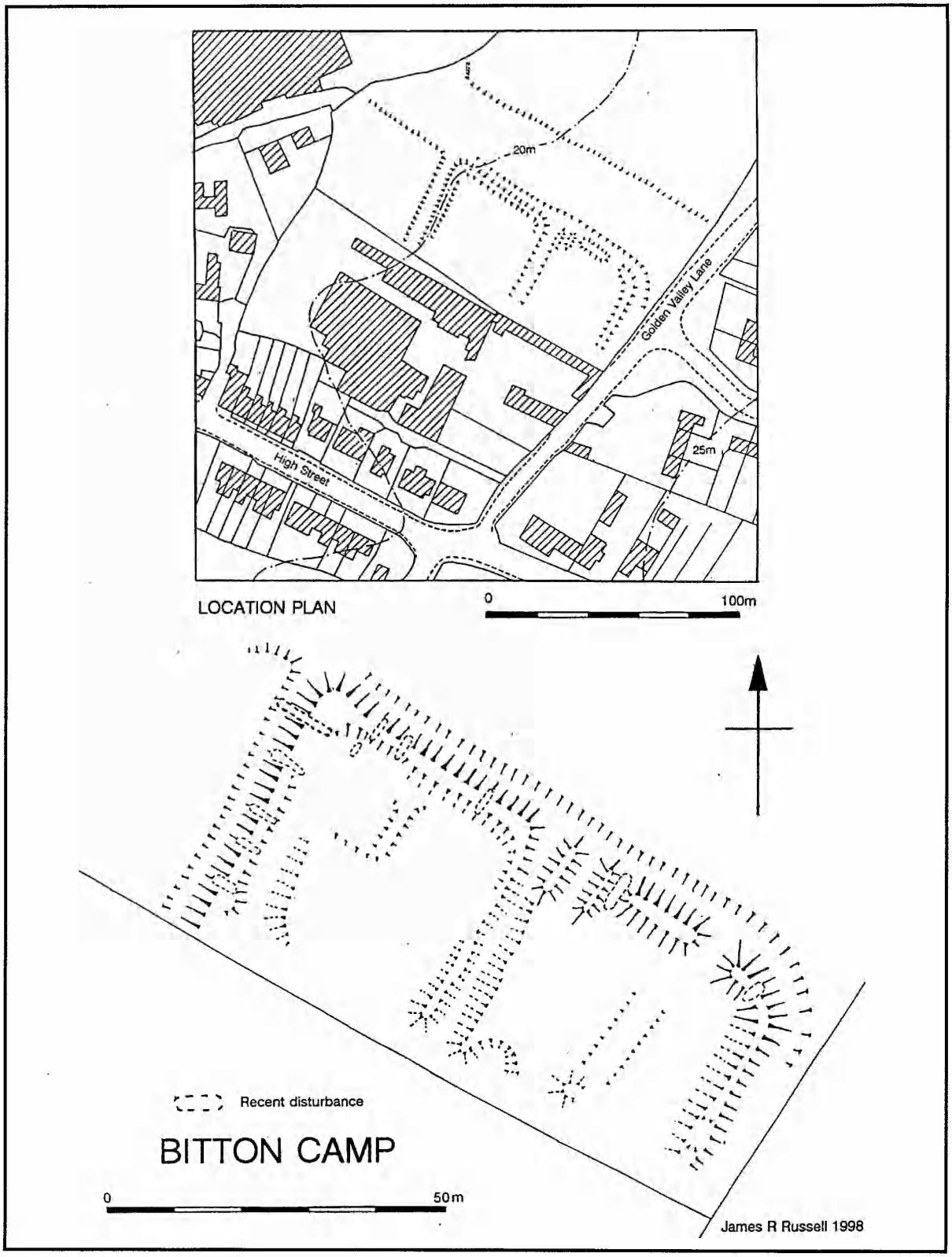

Fig.1 Site location plan

PARK FARM, OLDLAND (Avon SMR1442)

During field investigation in 1962 the Ordnance Survey Archaeology Division discovered a rectangular earthwork on the east side of Cherry Garden Lane and south of Park Farm (NGR ST 6734 7083). The earthwork consists of a 10m wide ditch measuring 60m square externally, with traces of a slight external bank. Within the central platform is a rectangular depression approximately 28m square.

Since its discovery the date and purpose of this earthwork has been the subject of considerable debate. The rectangular shape of the enclosure, coupled with the fact that it straddles the supposed line of the Roman road from Willsbridge to Gloucester (Margary 1973, Route 541) has led to local speculation that it represents another "Roman Camp". The Ordnance Survey archaeologists noted a spread of iron slag and 18th and 19th century pottery in the interior of the feature and postulated a "possible industrial connection" (Ordnance Survey Record card ST67SE3). In 1982 the present writer suggested that the earthwork was a mediaeval cattle enclosure connected with the nearby Oldland Common, making a comparison with the multivallate square enclosure at Syston Hill Farm, Siston Hill (NGR ST 6631 7503), (Russell 1982, 22 fig,2).

Examination of the 1843 Tithe Map (Bristol Record Office. EP/A/32/8) has however shown that the site of the enclosure is marked as "Fishpool Leaze" (Schedule no. 284). Fields to the east and south are shown as "Little Park" (Schedule no.282) and "Park Piece" (Schedule no.259) respectively, while to the north was an area of "coppice" woodland (Schedule no.283). The earthwork was thus an elaborate fishpond of medieval or early post-medieval date, consisting of a rectangular central pond linked originally to a moat-like outer channel. It may be compared with the site at Kenn Court, Kenn on the North Somerset levels, where an interlinked group of five rectangular "stew" ponds for breeding purposes is partly enclosed by an L-shaped moat.(NGR ST 414 687; Dennison & Iles 1985, 44, fig. 13). In 1843 the block of fields surrounding "Fishpool Leaze" was part of Park Farm, owned by Charles Joseph Whittuck and in the tenancy of George Hook. It seems likely however that the fishpond was originally connected with the Cullyhall estate on the hill immediately to the east.

ACKNOWLEDGMENTS

The 1:500 Survey of "Bitton Camp" was begun under the supervision of Vince Russett, the then Avon County Archaeologist, and continued by Barbara Bowes and the present writer, who drew up the final plan. Those taking part included Mr M Anderson, Mr A Britton, Mr R Cook and Mrs J Pennington. Thanks are due to Mr R Cook for transcribing the Tithe Map Schedule for Bitton.

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AN EXCAVATION AND AUGER SURVEY IN 1996 AT BRITISH GAS SEABANK, BRISTOL, ON THE NORTH AVON SEVERN LEVELS

by Pete Insole

with contributions by Julie Jones and Rod Burchill

ABSTRACT

A programme of archaeological excavation and palaeoenvironmental sampling on the British Gas site at Seabank revealed a succession of five drainage ditches dating between the 11th and the 18th centuries. The ditches had been open to the sea and were filled with domestic rubbish and rich palaeoenvironmental deposits which indicated that the environment in this area of the North Avon Severn Levels was stable enough in the 12th century to allow domestic activity to take place.

INTRODUCTION

Bristol and Region Archaeological Services (BaRAS) were commissioned by British Gas to undertake an archaeological excavation at Seabank north of Avonmouth on the Avonmouth to Severn Beach road (A403) (Fig.1). The work was necessitated by the decision of British Gas to build a gas-powered, electricity-generating station in the place of its redundant Hydrocarbon Reforming Plant.

The site lies approximately 4.8km north of Avonmouth, at NGR ST 5335 8259 and between 6.6m and 6.9m above OD on the North Avon Severn Levels. The Levels are a reclaimed wetland which has been recognised as being archaeologically and environmentally sensitive. Seabank takes its name from the flood defence of unknown date that lies to the west between it and the Severn estuary. The area of the excavation and auger survey lay on the riverward (west) side of the Seabank redevelopment site in an open grass field south of the main access road to the old plant. The field is bounded on the west by dense trees, undergrowth and a ditch alongside the seabank. To the south and east the excavation was bounded by the redevelopment site.

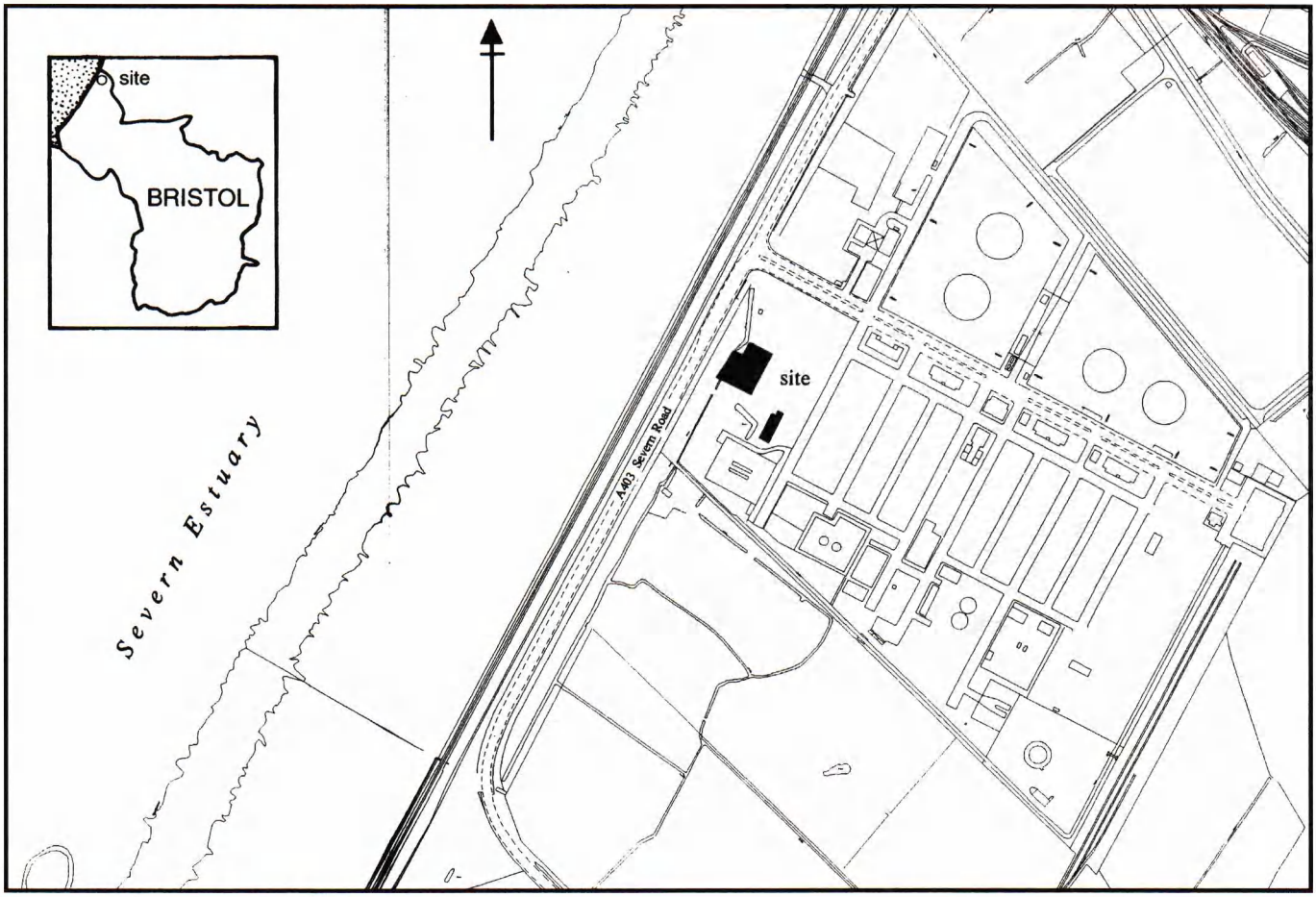

Fig.1 Site location plan (reproduced under Ordnance Survey Licence No. LA090554)

Historically the Seabank site formed part of the manor of Henbury, within Brentry hundred (later Henbury) and part of the tithing of Stowick in the parish of Henbury. Much of the area remained open land until industrial development began north of Avonmouth docks after the First World War. Seabank Farm was built in the late 18th or 19th century and stood north of the excavation and west of the Seabank administration block. The field boundaries in the area remained unchanged until the 1960s when the Hydrocarbon Reforming Plant was constructed and the Avonmouth to Severn Beach road was built along the seabank. That development resulted in the destruction of Seabank Farm (BaRAS Report BA/D221).

Prior to the excavation an archaeological evaluation had been undertaken by BaRAS in 1995. It revealed a ditch, aligned north-south, containing sherds of 12th-century pottery and with a series of three recuts in the medieval and the post-medieval periods. The excavation was carried out between June and August 1996 to reveal more of the ditch and any associated settlement. The work also provided an opportunity for a study of the historic environmental changes that have taken place on the southern side of the Severn Estuary. To that end during the excavation an auger survey was undertaken in the area adjacent to the north (Fig. 2).

GEOMORPHOLOGY

Within the last 9,000 years sea level has risen by approximately 35m at a rate of c2mm a year. In the case of the Severn Estuary this has resulted in the river bed being buried by up to 5m of sediments.

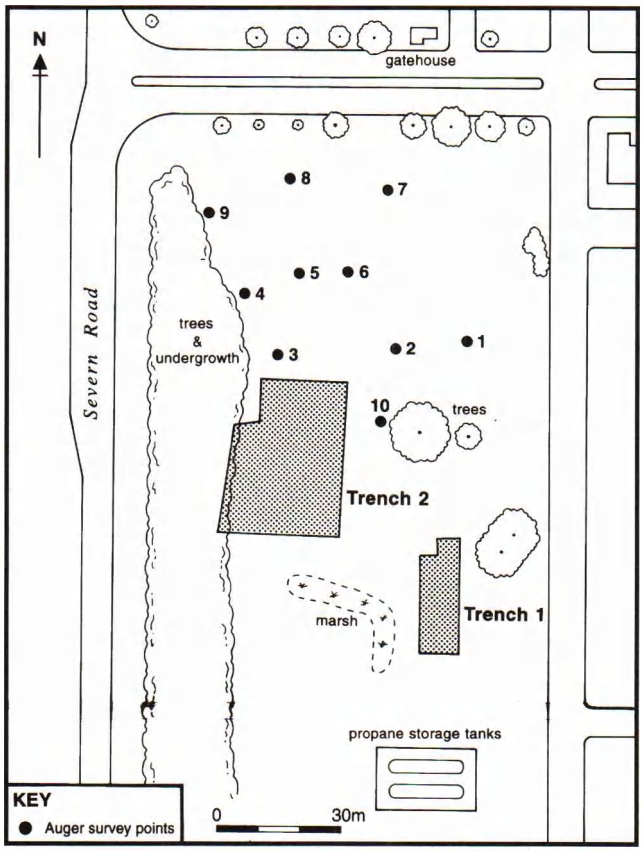

Fig.2 Trench and auger locations

Originally, in the area of Seabank, the River Severn flowed through a broad valley over Triassic and early Jurassic mudstones. This solid geology is now buried by the Wentlooge Formation, a variety of alluvial silty clays and bands of peat, which was laid down as a result of the rise in sea level at the end of the last Ice Age and continued accumulating until the Roman period. This build up of sedimentary deposits was not a continual process but a result of periodic inundations over what became, after the last Ice Age, the Severn flood plain. Proof that the area of the Severn levels passed through periods of stable environs, at least seasonally, comes from the existence of palaeochannels, such as those of Hills Flats (Allen and Fulford 1996), and organic beds which are indicative of an estuarine marshland environment.

The Wentlooge Formation has been subdivided into three broad stratigraphic groups (Allen 1992), the Lower, Middle and Upper Wentlooge. The Lower Wentlooge Formation consists of gravels and sands overlain by blueish or greenish clayey silts. The Middle Wentlooge Formation is comprised of alternate strata of organic beds and clayey silts. The organic beds can be peat deposits or merely silts with rootlets. Radiocarbon dates from these various layers have ranged from 6,500 to 2,500 radiocarbon years BP (ibid. 32). The Upper Wentlooge Formation consists of greenish grey, clayey silts grading into brown, mottled silts.

HISTORICAL BACKGROUND

The earliest historic records for the area come from 10th-century charters of the Saxon Mercian kings. These record that 30 areas of land in Henbury were granted to Oftfor the second bishop of Worcester between 692 and 697 A.D. (Thompson 1915). Mention also of 'Old Mere Dyke' and 'Upper Compton Rhene' (Grundy 1935) suggests that a system of sea defences and drains was in place in the later Saxon period. Other evidence indicates a degree of Saxon activity on the levels. The Saxon place-name element of 'hamme' is evident there in the names Rockingham, Redham, Edingham and Bilesham. The name Moormead denotes Saxon meadow land while wick and worthy place names, such as Stowick, Redwick and Worthy Farm, are indicative of late Saxon settlement in the area: 'wick' means dairy farm and 'worthy an outlying settlement (Smith 1964).

The Domesday survey of 1086 records that Henbury was part of Westbury-on-Trym manor and remained in the hands of the bishops of Worcester (Thorn 1990). In the 12th century the levels were referred to as the Salt Marsh (Thompson 1915 and Smith 1964). According to the 18th-century historian Samuel Rudder the bishops continued to hold the manor of Henbury until 1547. In that year Edward VI granted Henbury to Sir Ralph Sadleir. Sir Ralph died in 1587 and the manor descended eventually to Sir Walter Aston, who was created Lord Aston in 1627 (Bristol R.O. 32226).

On 20 January 1607 there were severe floods on the

levels and the Henbury burial register records the interments of ten people who died as a result of this flooding. Minute books of the Commissioner of Sewers record the setting back of the sea wall in the 17th century (Allen and Fulford 1992), possibly as a result of the floods of 1607.

On the death of Lord Aston in 1639 Henbury passed with the peerage to his son Walter and he retained the manor until 1675 (Bristol R.O. 32226). In 1680 the manor was bought by Sir Samuel Astry and after his death in 1704 it was divided between his three surviving daughters, of whom Elizabeth, the eldest, married Sir John Smyth.

Isaac Taylor's plan of the parish of Henbury (Bristol R.O. 29351) dated to 1773 shows that much of the Seabank site was then in a tract of land called 'Moor Land'. Part of the excavation and the area of the auger survey were in the northernmost of a group of three fields, across which has been written 'Peasley's Paddock Mill'. Taylor's plan does not show a mill or any other structure in the immediate vicinity of the site, but it records that Chittening Wharth, directly in front of the site, was then known as East Wharf. Sturge's 1799 plan of land in the hamlet of Crook's Marsh (Bristol R.O. 31965) shows a structure that could be Seabank Farm. Its owner or occupier was John Thomas.

The 1822 inclosure award for Westbury-on-Trym, Henbury and Compton Greenfield (Glos. R.O., Q/RI 154) does not record the field boundaries in the area of the site but, together with the inclosure map, does show the boundaries of plots along Chittening Wharth and it gives the names of owners of these plots. The plot on the shoreline directly west of the site belonged to J J Beard. A building in the excavated area, close to Trench 2, was presumably also owned by Beard. The land on either side of Beard's property belonged to Sir Hugh Smyth. A plan of the Severn levels prepared in 1835 by Sturge for the Commissioner of Sewers (Glos. R.O., D 272/9/1) includes the field containing the Seabank site but does not give its name or indicate the owner. The surrounding fields belonged to the Smyth family. The 1840 tithe award for Henbury parish (Bristol R.O. EP/A/32/22) records that J Allen then owned the field containing the Seabank site. The tithe map shows the buildings of Seabank Farm, although, strangely, no owner is listed, and also recorded in 1822 the structure in the vicinity of Trench 2.

The 25" OS map of 1881 (Glos.LXVII.6 and 10) shows the same field boundaries in the area of Seabank as those recorded in 1835 and 1840. It also shows the buildings of Seabank Farm and indicates that a pond south of Trench 2 once formed part of a field boundary ditch (Figs.1-2).

According to a plan of 1911, part of a sales brochure for various farm properties in the Henbury Parish (Glos. R.O., SL 420), a straight road (possibly Chittening Street) south of the site, running inland from the coast and terminating at Crook's Marsh, was a Roman road. No evidence exists for such a road in the Bristol Sites and Monuments Record.

The available map evidence, beginning in 1773 records only minor changes in the field pattern of the area before the First World War as adjoining fields were combined or occasionally as smaller enclosures were created. The majority of the plots in the area remained open land until industrial development began north of Avonmouth docks after 1918. The field boundaries within the Seabank site remained unchanged until the 1960s when the Hydrocarbon Reforming Plant was constructed and a road (A403) was built along the seabank parallel with Chittening Wharth. This development resulted in the destruction of Seabank Farm, the main buildings of which stood to the rear of the present Seabank administration block (BaRAS Report BA/D221).

ARCHAEOLOGICAL BACKGROUND

Archaeological study of the North Avon Severn Levels has been relatively limited compared with that of the Gwent Levels. Important research undertaken on the Severn Levels has highlighted their geoarchaeological importance and demonstrated how the geomorphology and archaeology of the area have been mutually influential, but archaeological interpretation of the North Avon Severn Levels has been based largely on hypothetical parallels with the Gwent Levels and on the extensive study undertaken prior to the construction of the second road bridge over the lower Severn estuary, the Second Severn Crossing, and its approach roads (Barnes et al 1993).

The first major archaeological work in the area of the Seabank site was undertaken in the early 1980s at Crook's Marsh Farm. Here a watching brief during the extraction of clay for the Severn Valley Brickworks revealed evidence of Romano-British settlement dating from the 2nd to the 4th centuries A.D. and possibly continuing into the 5th century. The site was sealed by 0.5m of alluvium supporting the hypothesis that in the period after the Roman occupation the levels had become subject to flooding (Everton and Everton 1981).

The most important archaeological work on the North Avon Severn Levels in the early 1990s was associated with the construction of the Second Severn Crossing. A series of evaluations was carried out along the routes of the approach roads to the new bridge by the Glamorgan-Gwent Archaeological Trust (GGAT) (Lawler et al 1992), and it was followed by large-scale excavations at Hallen Marsh, where various phases of Iron-Age occupation were discovered sealed by 0.8m of alluvial silts. Study of the recovered samples revealed that the site existed in low energy estuarine conditions and that a degree of crop processing had taken place on the site (Barnes et al 1993).

Further important discoveries during work on the Second Severn Crossing came from trial pits and auger surveys. At Awkley Lane, near Olvestone Common, a 4m deep trench was excavated revealing a sequence, 1.15m deep, of orange-brown silty clays similar to the sealing deposit at Hallen Marsh (Barnes and Newman forthcoming). The lowest layer in the sequence was dated by associated pottery to the 5th century and the upper layers have been laid down after 1600. Below the sequence were darker silty clays dated to the Romano-British and Iron-Age

periods. The upper sequence has indicated that accumulations of sedimentary material took place throughout the period after the 5th century and were not merely confined to the period between the 4th and 7th centuries as previously thought. Analysis of the stratigraphy has shown that the most rapid deposition took place after 1350. This view is supported by the fact that at least twice in historic times, in 1563 and 1607, devastating breaches of the sea wall occurred (Lawler 1993; Rippon 1993). Flooding caused by these breaches could have resulted in a considerable depth of alluvial deposition in areas of the levels and possibly was a significant contributor to the silts which sealed the artefacts at Crook's Marsh and Hallen Marsh.

Auger surveys undertaken during the evaluations for the Second Severn Crossing have also provided information concerning the peat bands within the Wentlooge Formation. Numerous bands were identified and provided radiocarbon dates from 6,500 to 2,500 radiocarbon years BP. Cross-referencing of the stratigraphic sequence of peats from each auger borehole revealed that individual peat bands vary in depth across the area. This suggests that the prehistoric topography was more undulating than that of today and may explain the varying depths of alluvial material that seal archaeological deposits of a similar date.

Two archaeological evaluations have been carried out in the vicinity of the Seabank site. The first was in a field on the site's southern boundary (BaRAS Report BA/D221) and the second was beyond the sea wall at Stup Pill south of the site (BaRAS Report BA/D181). Neither evaluation indicates any significant archaeological activity.

The Bristol Sites and Monuments Record (BSMR) lists twenty-three sites in the area (Fig.3 and Table 1). Most of them contain post-medieval farm buildings or undated agricultural features. The two nearest Seabank both contain post-medieval buildings shown on 19th- and 20th-century maps; BSMR 9226 is 50m north of Trench 2 and BSMR 9227 is c50m south of Trench 2. Two sites of possibly earlier date are within a kilometre south of Seabank; Worthy Farm was recorded from 1241 (BaRAS Report BA/D166) and Chittening Farm was known by the name 'Chitnend' in 1658 (Smith 1964).

The BSMR sites within a kilometre north and east of Seabank are chiefly undated and fall into two types; deserted farmsteads, most of which are likely to ba post-medieval in origin, and undated enclosures. One (BSMR 9225) is listed as containing three buildings of an abandoned farmstead recorded from 1830 and three other deserted farmsteads have been identified. No date earlier than the 18th century can be ascribed to any of these sites. Some farmsteads in the vicinity of Seabank are likely to have an earlier origin. Stowick Farm, listed as an abandoned farmstead, stood at a place known in the 13th century as 'Stonwyk' (Smith 1964). Minor's Farm is undated but the nearby Minor's Lane was known by that name by 1690 and is the site of a possible medieval fishpond first recorded in the 13th century. The Sites and Monuments Record lists three undated enclosures in the vicinity of Seabank. Little is known about these earthwork features. Similar enclosures on the Somerset Levels may represent new settlement on the wetlands after the Roman period. Recent work on one enclosure at Puxton on the Somerset Levels has produced 10th-century pottery (Rippon forthcoming). BSMR 2994, within 1km east of Seabank, underlies ridge and furrow, but the enclosure appears to have an earlier origin than that suggested by its relationship with later agricultural earth-works and Rippon's theory. A recent watching brief during cable laying through the enclosure recovered Romano-British pottery from the dark silty fill of a ditch and from the adjacent fields (BaRAS Report 263/1997).

Number on plan	BSMR Number	O.S. Nat. Grid.	Description
1	9226	ST 53388264	Post-medieval building
2	9227	ST 53348253	"
3	6711	ST 53288237	"
4	9228	ST 53148219	"
5	9220	ST 53308212	Bank Farm
6	9229	ST 52908175	Green Splott Cottages
7	9221	ST 53648200	Worthy Farm
8	9222	ST 53578190	Chittening Farm
9	9223	ST 53558176	post-medieval building
10	9225	ST 53558282	deserted farmstead
11	9224	ST 53978274	Stowick Farm
12	2995	ST 54258252	deserted farm
13	2992	ST 53878305	post-medieval building
14	2994	ST 54048230	undated enclosure underlying ridge and furrow
15	6716	ST 54618255	post-medieval building
16	5226	ST 54308210	undated enclosure
17	4896	ST 54008180	Crooks Marsh Roman remains
18	6162	ST 54308172	undated enclosure
19	9251	ST 54378167	Minor's Farm
20	5797	ST 54508170	medieval fishpond reference
21	6390	ST 54328046	Hallen Iron Age remains
22	2991	ST 53708120	deserted farmstead
23	2993	ST 53908100	deserted settlement

Table 1 BSMR sites

The Sites and Monuments Record lists two archaeological sites near Seabank; a Romano-British site at Crook's Marsh c1km to the south-east and an Iron-Age site at Hallen Marsh just over 2km to the south-east.

Rippon's theory on the historic landscape of the Gwent Levels demonstrates two broad patterns of field layout; planned and irregular. A variety of planned landscapes includes the common regular, rectangular field boundaries that are assumed to date from the inclosures of the 18th and 19th centuries, while irregular landscapes are possibly indicative of earlier field patterns (Rippon 1996). Study of the Commissioner of Sewers' plan of the Gloucestershire Lower Levels in 1835 and of other later surveys reveals that the fields around Seabank and throughout the tithing of

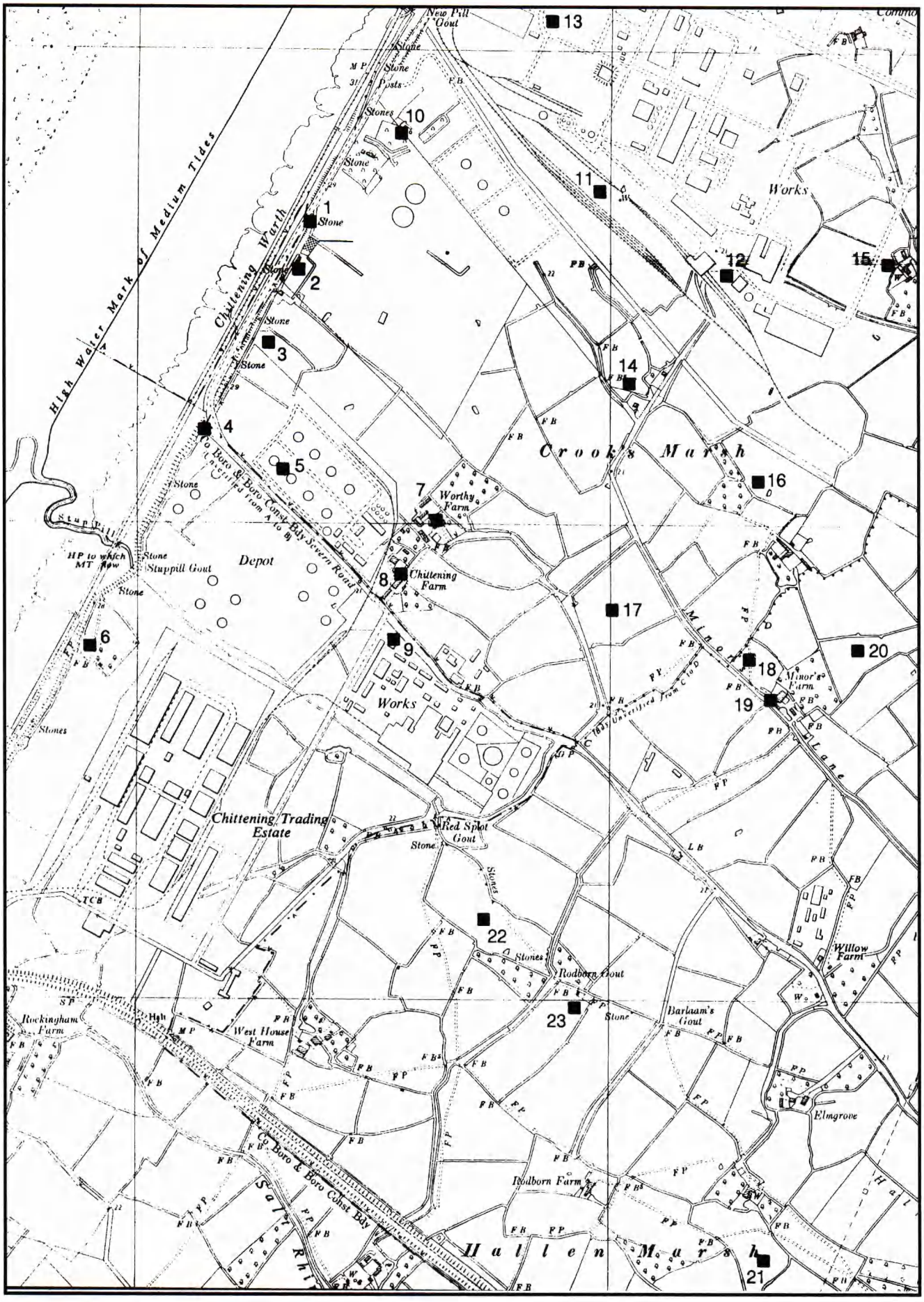

Fig.3 1955 Ordnance Survey plan showing BSMR sites

Stowick display an irregular pattern while those north of the Red Rhine in the historic tithing of Compton Greenfield and in the tithing of Aust show a regular pattern. The field pattern of the tithings north of Stowick, Redwick and Northwick, on the other hand, is of an intermediate type. If Rippon's theory is correct, the field boundaries in Stowick are in general a pre-inclosure feature of the landscape. The ditches that form the field boundaries could conceivably be medieval in origin.

THE EXCAVATION

Methodology

Two trenches were dug by machine and the revealed archaeological features were excavated by hand. In Trench 1, in which no features were revealed, the underlying alluvial clays were machine excavated to retrieve samples from the organic peat deposits. Excavation of Trench 2 involved a written, drawn and photographic record of the archaeological deposits and the removal of bulk samples from the ditch fills and organic deposits for palaeoenvironmental study. The main area of Trench 2 containing the ditches was machine excavated to a greater depth than the rest of the trench. This revealed the bottom of the ditch cuts, as recorded in Figure 6, and allowed easier interpretation of the various Periods. In conjunction with these analyses, an auger survey was carried to show the extent of the deposits over a wider area than that covered by the excavation. This work was done by Geodrive Ltd using a powered auger soil sampling system. A grid was laid out and surveyed in, with six cores being taken to 4 metres depth and 4 cores to 6 metres. Logging and soil description was carried out by Keith Faxon and the results are shown in Figure 5.

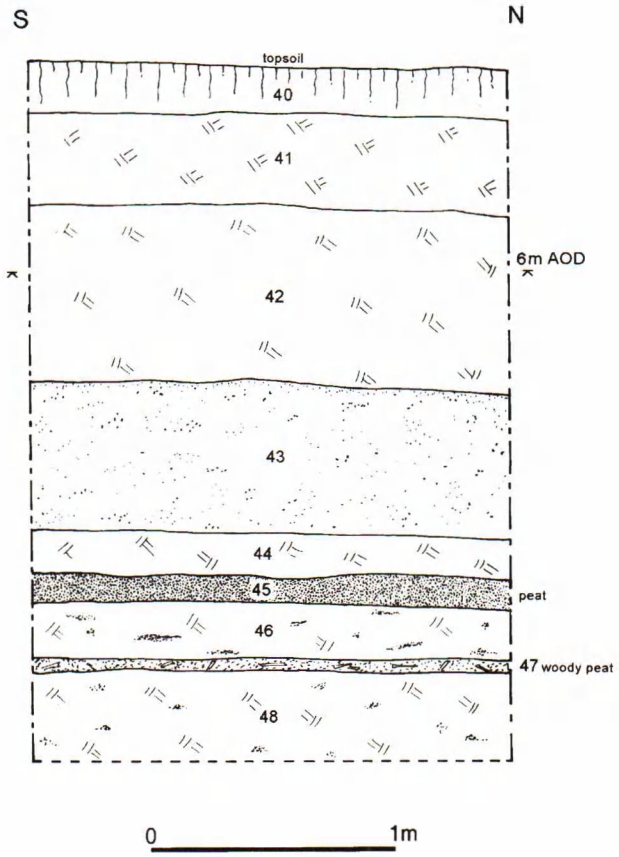

Fig.4 Section in Trench 1

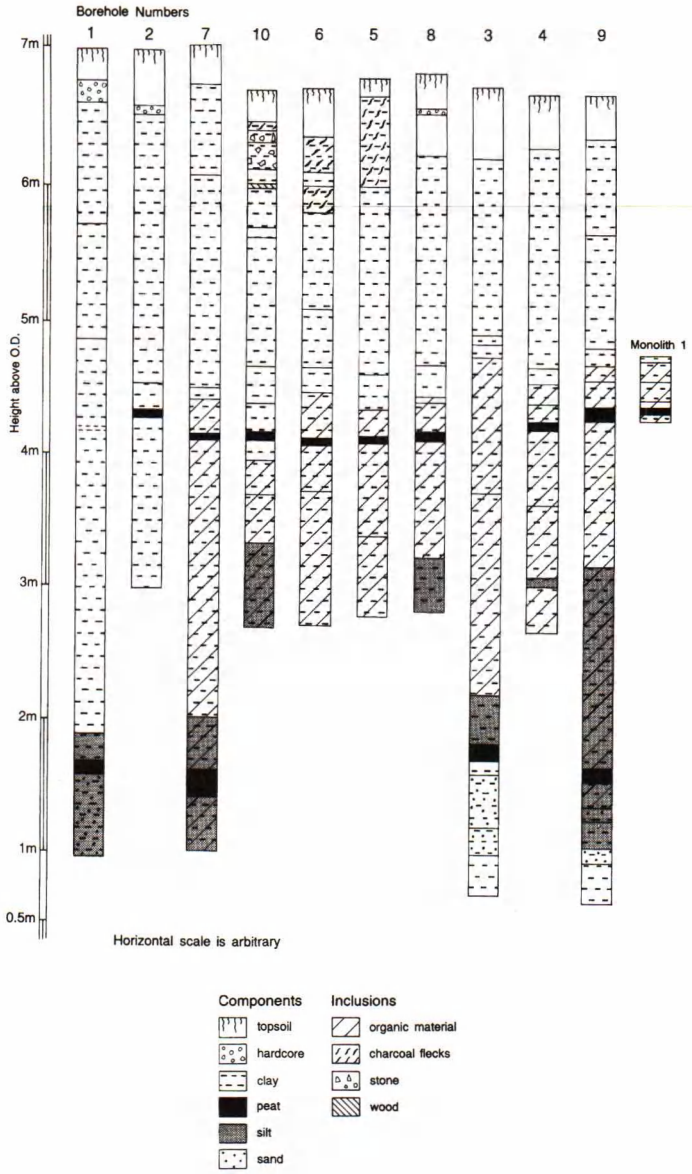

Fig.5 Peat levels diagram

Trench 1

Removal of topsoil revealed a mid-brown silty clay (41) which contained no archaeological features. The trench was therefore excavated by machine in arbitrary spits and revealed eight alluvial silt deposits of the Upper Wentlooge Formation to a depth of 2.8m (4m above OD). The sequence contained dark clays and organic beds (Fig. 4) through which a monolith was taken from a vertical section for environmental reconstruction (see below, The

Plate 1 12th century pottery at the northern terminus of 133 (from the evaluation), viewed from the east

Palaeoenvironmental Analyses). The lowest layer encountered was a dark olive-grey clay with fragmented plant matter (48) and it underlay a 300mm thick layer of peat (47) lying at 4.32-4.29m above OD. Above (47) there were 0.5m of olive-black to dark olive-grey clays with fragmented plant matter (46, 45 and 44) and overlain by 0.62m of blue silty clay with brown manganese stains (43). Above 43 were two deposits of mid brown silty clay with varying degrees of dark-brown manganese staining. These two deposits (42 and 41) were 0.71m and 0.38m deep respectively.

Trench 2

Trench 2 revealed the same organic deposits and also a buried soil horizon within the upper silts of the Wentlooge Formation. This layer (140) was 100mm deep and was recorded 1m above the lowest organic bed (156) at 5.2-5.3m above OD and c1.4m below the present ground surface. There were no finds present, and a bulk environmental sample produced rush seeds and charcoal flecks.

Six archaeological Periods were also revealed. They were represented principally by a ditch and its successive recuts that formed a 'T'-shaped plan across the trench, running in a north-south direction. Towards the northern limit of the trench the medieval and post-medieval cuts and fills turned in a westerly direction towards the coast, the post-medieval fills also turned to run in a south-easterly direction. The fill of each recut was found to contain artefactual remains and the stratigraphic relationships between each cut formed the basis of the Period subdivisions. However, the artefacts merely date the infilling of the ditch and not the formation of the drainage system; for example only one sherd of pottery was recovered from the Period 1 ditch and it would seem likely that this feature may have been open for some years before being infilled. Later features dated to the 19th and 20th centuries were also found in the northern end of the trench and were probably associated with Seabank Farm.

Plate 2 Trench 2 after phase 1 of machining, viewed from the north

Period 1: The 11th-Century Ditch

The earliest and most westerly of the ditches (120) was only recognised after the trench had been machine-excavated to a depth of 5m above OD; the resulting section from this work revealed the ditch to have been cut from a similar height as the later ditches. The ditch terminated to the south (Fig.6) but continued into the north section of the deeper machined area. The cut for the ditch, at this depth, was narrow and shallow (0.2m wide and 0.2m deep) with the fill (119) being a silty clay that was very similar to the alluvial silts through which it cut. A single sherd of 11th-century pottery was the only find. The study of samples from the ditch suggests that it existed in a lower to middle saltmarsh environment and was open to the sea and linked with other ditches carrying fresh water from inland. Very few fishbones were recovered from the ditch, but those that were found were from stickleback, indicating that the ditch was part of a freshwater system. This suggests that the ditch was primarily intended to drain the surrounding land, and that a drainage system was in existence on the North Avon Levels by the end of the 11th century at the latest. The southern end of the ditch terminated either at an entrance to an enclosure or was a method of drainage control similar to the function of the 12th-century ditch discussed below. No other archaeological features were revealed from this Period.

Period 2: The 12th-Century Ditch

The upper part of the 12th-century ditch (133) was almost completely removed by later ditch cuts. At the northern end of the deeper machined area the ditch was found to terminate at the cut for the evaluation trench and further excavation of this feature revealed a large quantity of pottery sherds representing semi-complete vessels. Context 133 was a narrow linear feature c0.3m wide and 0.25m deep with a 'V'-shaped profile. Beyond the terminus of the ditch, hand excavations of a section north of the deeper machined area revealed a similar ditch containing identical pottery and a fragment of unworked, poorly preserved oak timber.

Context 133 also terminated in the southern area of the deeper machined area and beyond this, on the same alignment, were a number of slots (see Fig.6, Pl. 3). Most

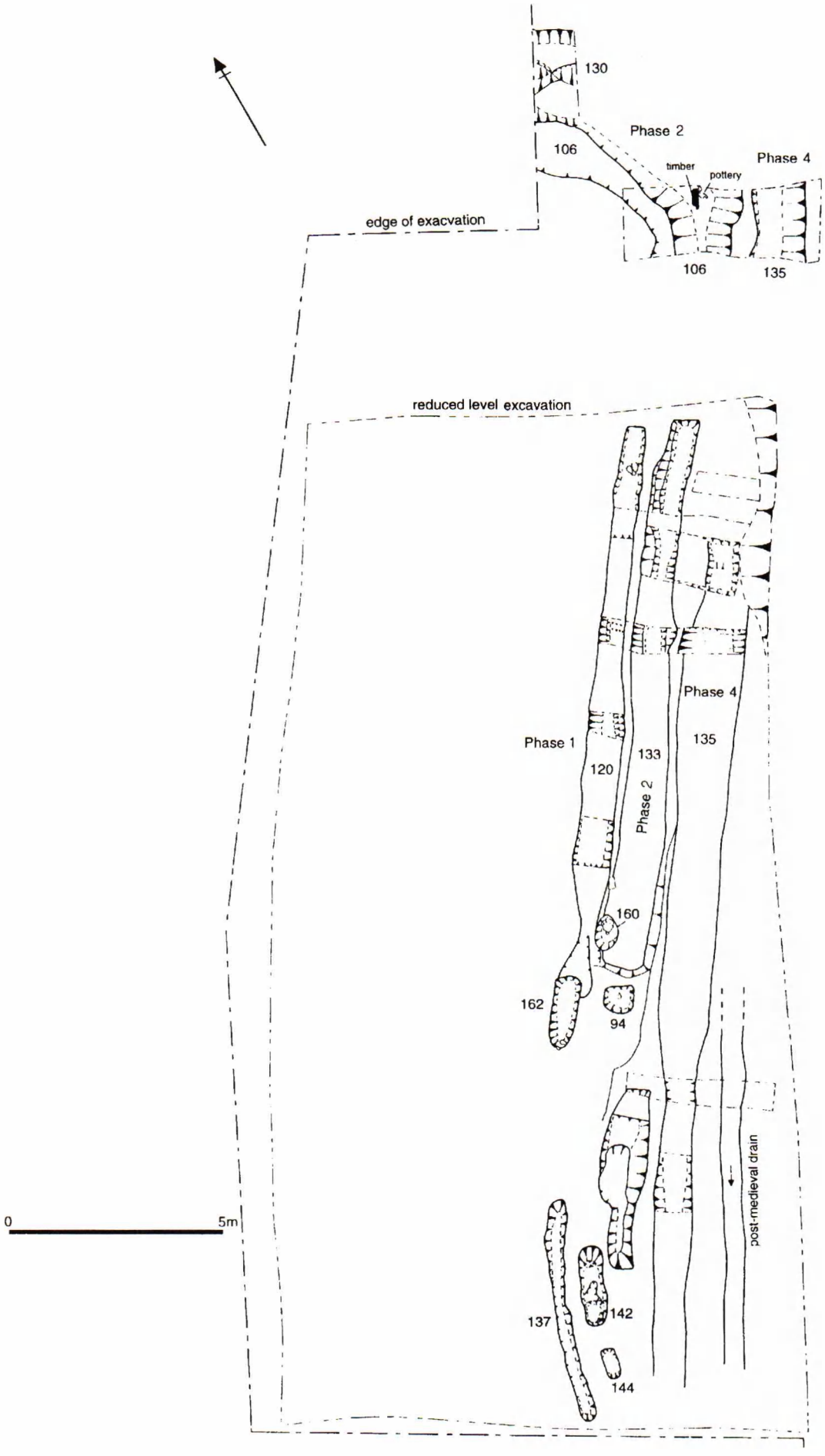

Fig.6 Medieval features in Trench 2

Plate 3 Curving ditch and 'scoops' in the southern area, viewed from the south

were ovalute in shape with steep sides and c0.3m deep. One, however, appeared as a curving gully (137). These 'scoop-like' features produced few finds but their alignment and relationship to the Period 2 ditch suggest they are associated with it. One explanation for these 'scoops' would be the provision of a primitive gout system maintaining water within the ditch at a constant level whilst allowing seasonal flooding to drain away.

Context 133 had a primary fill of blue silty clay (126) that produced few finds and limited palaeoenvironmental information. The secondary fill (132) of dark ash contained a large quantity of pottery of 12th century date; types present included Ham Green cookpots. Context 132 was also rich in charred cereal remains which are likely to have been placed in the ditch. It also produced the most fishbones with eel and stickleback being the most common; both species could have been living in the ditch. Evidence of food debris amongst the assemblage include several burnt bones as well as roker and herring. Forams and diatoms recovered from sampling context 132 suggest a lower saltmarsh environment with the ditch experiencing regular fluctuations in water salinity as freshwater draining from the land mixed with brackish and marine waters from occasional tidal inundations.

Associated with this Period was a gully (102) 0.4m wide and 0.2m deep with a 'V'-shaped profile. It was aligned north-west/south-east and drained away from the ditch. It contained early 12th-century material including a fragment of quern stone (SF2) of coarse grit-fine conglomerate, common to the Long Ashton and Portishead areas. A similar quern fragment was found unstratified nearby. As the gully drained away from the ditch it probably formed part of an irrigation system, of which the 'scoops' in the bottom of the ditch possibly also formed an essential part.

Period 3: The 13th-Century Ditch

The 13th-century ditch (139) was a continuous feature draining south with a distinctive flat bottom. At 5m above OD the cut for the ditch was c0.4m wide, filled with a brown silty clay containing late-13th century pottery such as Bristol/Redcliffe ware. Little of the fill survived. Analysis of samples from the ditch suggest similar conditions to the 12th-century ditch, with a mixture of freshwater, brackish and marine forams and diatoms and only the bones of eel and stickleback present.

Period 4: The 14th-Century Ditch

The latest medieval ditch (135) was a wide cut 1.5m across with a rounded bottom and steepening sides (Fig.6). It was filled with a dark-brown silty clay (131) containing 14th-century pottery and an annular brooch (SF6, Fig.10) of 13th-14th century date (cf. Wheeler 1940). Diatoms were absent from the samples taken from the ditch, while the forams recovered are typical of a middle saltmarsh environment. Elphidium oceanensis is indicative of standing water and its presence in the samples may suggest a partial obstruction at the seaward end of the ditch preventing it from draining completely.

A gully (80) with similar dimensions to 102 in Period 2 was found west of the ditch c0.8m to the north and parallel with it. The gully contained early 14th-century material such as Bristol/Redcliffe and Ham Green cookpots, and it may indicate a secondary phase of irrigation.

Period 5: The Post-Medieval Ditch

The post-medieval ditch cut (28) followed approximately the alignment of the earlier ditches although it turned inland in an easterly direction. It measured c2m across and between

Plate 4 Northern section through ditches, viewed from the north

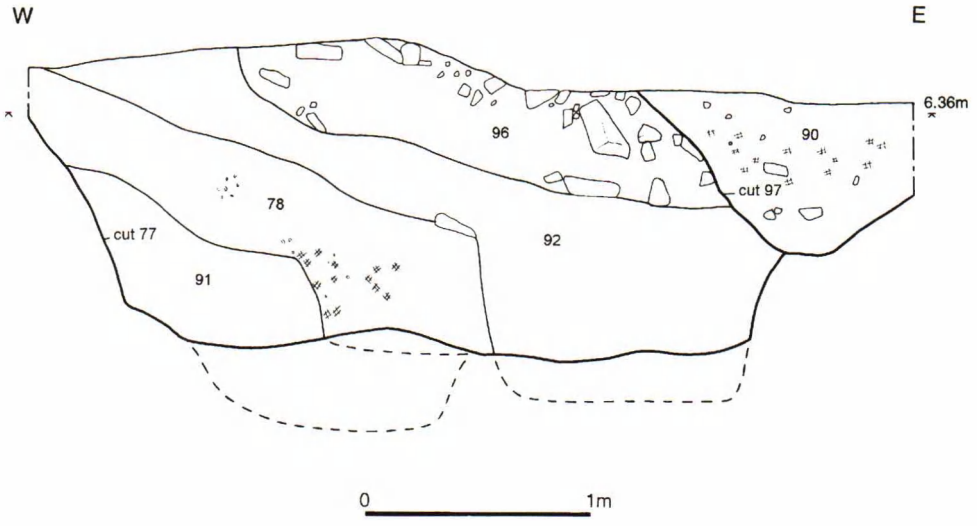

Fig.7 Section through north-south ditch

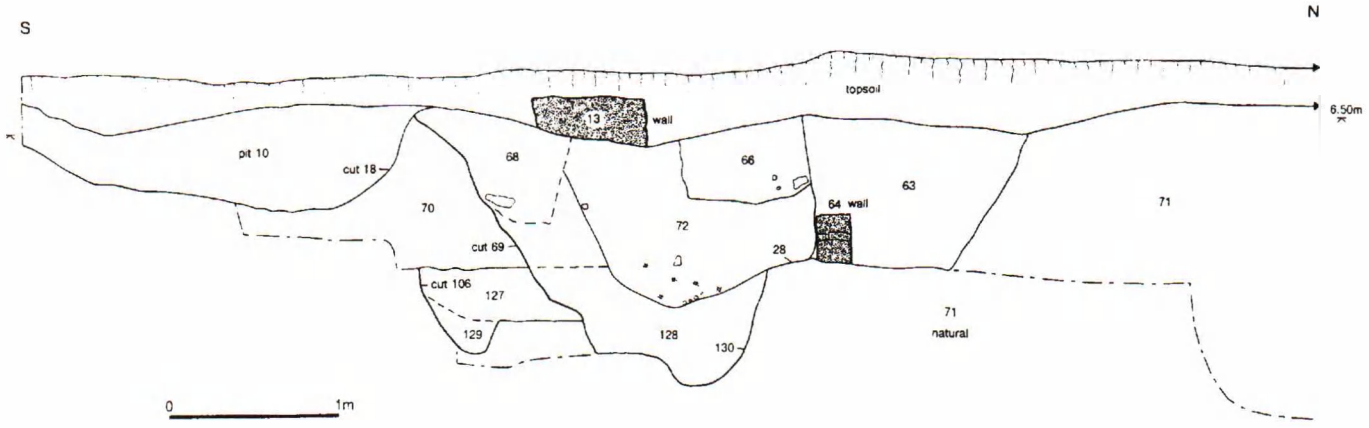

Fig.8 Section through east-west ditch

1m and 1.5m deep, draining to the south. The cut had two fills. The earlier Period 5a was a dark silty clay (29 and 53) containing domestic debris including bone, oyster shell, charcoal and pottery of 16th to earlier 17th century date. Bulk and column samples from this lower fill produced charred plant macrofossils indicative of a hay meadow environment, and a limited number of forams. The sparse forams suggest a marsh creek environment with free-flowing conditions and strong diurnal salinity fluctuations with the flood and ebb of the tide. The later fill of the ditch (Period 5b), a mid brown silty clay (27), contained pottery of 18th-century date.

A gully was also found associated with this period running parallel with, and of similar dimensions to, 80 and 102 in Period 1 and Period 2. Unlike the medieval gullies, this feature drained into the ditch.

Period 6: 19th and 20th-Century Features

In the northern area of the trench a major feature was a sub-circular pond (11) that measured 10m in diametre, lined on the bottom with blue clay and filled with black ashy material (Pl. 2). It contained pottery of 19th-century date including slipwares, red wares, and willow pattern, farm refuse, rusted iron tools, and a variety of glass bottles. Context 11 was cut by the construction trench for a rectangular brick-built cess tank (7) measuring 2m by 1.5m across and 0.5m deep.

West of the pond was a rectangular pit (23) 2m long by 1m across and 1.5m deep filled with similar material to 11. It contained numerous glass bottles of 19th-century date and lay at the junction of two contemporary walls (13 and 14) aligned east-west and north-south. The walls, which were of limestone and pennant sandstone in a grey lime and ash mortar, were shallow-founded with only between one and two courses surviving; both were roughly faced. Wall 13 was cut by pit 23 and had been rebuilt and supported by a brick construction. It continued west beyond the section and was 5.5m long and 0.5m wide. Wall 14 measured only 2.2m

in length and there was no indication that it had continued further north or south. A penny with a date in the 1830s was recovered from the wall.

South of wall 13, running beneath the west section, was a rectangular pit (10) measuring 2m square and 0.45m deep. It was filled with mortar, ash and a large number of pan roof tiles of 19th-century date.

Three features of 19th and 20th-century date were recorded in the eastern area of Trench 2. Two were east-west parallel linear features (15 and 16) of nearly identical dimensions, measuring 5-10cm in depth and c1.5m across and interpreted as agricultural furrows. They extended beyond the eastern limit of the area and both terminated at their western ends at a shallow north-south ditch (34) 0.35m deep. The ditch contained dark silt and ash with glass, iron and pottery of 20th-century date. At its northern end the ditch turned east into a wider and deeper cut, 2m across and 1.3m deep, that ran beyond the east section. The dimensions of this larger east-west ditch are comparable to the existing rhines in the area and probably represents a late field boundary that drained into an earlier ditch. The east-west ditch can be traced today as a shallow depression in the grass on the east of Trench 2 and its level is further marked by three willow trees.

THE POTTERY

by Rod Burchill

The ceramic material recovered from excavated contexts was quantified by sherd count and weight. The fabrics were visually examined, using a hand lens (x10) and, where necessary, a binocular microscope (x30). In order to assist the identification and dating of the pottery the fabric types were compared to the three principal local type series: Bristol (BPT) (Ponsford 1988; Burchill forthcoming), Charlton - Elm Farm (CEFT) (Burchill 1989) and Gloucester (GTF) (Vince and Goudge). Only the Bristol and Charlton type series proved relevant. The pottery assemblage consisted of some 2,277 sherds weighing 47.635kg of which 214 sherds (9%) were unstratified. Medieval material accounted for 71.4% of the assemblage. There were 12 sherds of Romano-British date (0.5% of the assemblage). Coarsewares dominated the medieval Periods with fine wares accounting for only 3% of material of this date. The assemblage contained only 7 sherds of non-native imported pottery: two of these were of medieval (late 13th/14th-century) date and five were of the early to mid-16th century. The post-medieval wares were those commonly found throughout the region and were identified by comparison to the Bristol pottery type series. The medieval pottery included a number of unusual fabrics and a site specific type series was constructed for both the medieval and Romano-British pottery. Each distinct fabric type was assigned a number prefixed with the code SBT (Seabank Type); details of which are included below.

The Pottery

The pottery was allocated to groups of broadly contemporary contexts associated with the various Periods of site development as defined in the excavation report.

Period 1

A single sherd of pottery was recovered from a Period I context. The sherd, from Context 119, was in fabric SBT 3, a type dating no later than the third quarter of the 11th century.

Period 2

A group of some 294 sherds mostly 12th-century wares included Ham Green cookpots (SBT 1 and 2) and flint-tempered wares (SBT 11). The group also included a number of 11th- century sherds, all probably residual.

An almost complete vessel in fabric SBT 22 was recovered from Context 123. The vessel, a jar or cookpot, was sooted and had a possible residue on its internal surface. It may have been deliberately placed in the ditch. The fabric is a type found in Bristol where it is dated to between 1080 and 1120.

Period 3

The pottery in this group (36 sherds) was similar to the material in Period 2. A single sherd of Bristol/Redcliffe ware (SBT 6) from Context 91 provides a late 13th-century date for the group. Also from the same context was a single sherd of Romano-British date (SBT 17).

Period 4

A large group of 639 sherds was recorded. The presence of wheel-thrown wares from north-west Wiltshire containing fragments of oolitic limestone (SBT 7) dates the group to between 1300 and 1500, but the absence of pottery from the Malvern Chase kilns may suggest an end date for the group no later than 1400. Although few in number, the appearance of fine wares including Bristol/Redcliffe jugs (SBT 6), Bristol/Redcliffe cookpots (SBT 38) and South Gloucestershire quartz gritted jugs (SBT 48) suggests that the status of the site may have risen during this period.

The group includes a large number of coarsewares, including Ham Green cookpots and flint-tempered micaceous wares. Most of these must be residual.

Period 5a

A group of 295 sherds dated from the late 16th to the early 17th century. During this period the assemblage is dominated by the products of the Malvern Chase kilns along with smaller quantities of Somerset wares, including Wanstrow, Nether Stowey and Donyatt types. Black-glazed Falfield cups in the Cistercian tradition were also recovered from a number of contexts.

The pottery from this group included a small number of imported vessels. Context 53 yiellded single sherds of Beauvais mottled green, Frechen stoneware and a south-west French chaffing dish. Context 85 contained a fragment of a Werra Ware dish.

The group included a considerable quantity of residual pottery.

Period 5b
A small assemblage of 58 sherds included Wanstrow and Nether Stowey green-glazed jars. The presence of North Devon gravel-tempered wares and yellow combed and trailed slipware of probable Bristol manufacture would date the group to the late 17th or early 18th century, but the absence of other typical 18th-century wares suggests that a date in the second half of the 17th century is more likely.

Period 6
Two assemblages comprising 57 and 152 sherds respectively. The pottery was typical of the 19th century but included many 18th-century fabrics and forms.

DISCUSSION

The Seabank pottery can be divided into three groups: Romano-British sherds - (all residual in these context), medieval and post-medieval wares of types found throughout the region and an exclusively early medieval group of coarsewares that appear specific to the north Bristol fringe.

The commonest types of pottery recovered at Seabank were Ham Green cookpots, produced on the south side of the Avon river, and a quartz and limestone-tempered fabric (SBT 12). Ham Green cookpots (SBT 1-2) can be dated to between 1120 and 1300 depending on fabric and form (Ponsford 1992; Burchill 1995). Fabric SBT 12 is earlier; it was very common at Mary-le-Port and Peter Street, Bristol, where it may date as early as 950 (Vince 1985; Burchill forthcoming) terminating c1080. Other local common wares included a ubiquitous flint-tempered ware SBT 11, a quartz gritted ware SBT 31 and north-west Wiltshire lime gritted wares SBT 7. Medieval glazed wares were few in number: they included residual Ham Green B-type jugs, Bristol/Redcliffe jugs and a single jug in quartz gritted fabric of possible South Gloucestershire origin (SBT 48).

The post-medieval wares were those typically found throughout the area. Malvern and Somerset wares dominated the early post-medieval period whilst from the late-17th century onwards the assemblage consisted entirely of Bristol and Staffordshire wares. The small number of imported vessels - a medieval south-west French jug and four post-medieval vessels - (a south-west French chaffing dish, Frechen stoneware drinking jug, Beauvais dish and a Werra Ware plate) - were only remarkable because of the otherwise low quality of the pottery assemblage.

Seabank is important for producing a group of quartz and lime gritted wares many of which had not previously been noted in the Bristol area. Some of the types associated with this group had been found at Elm Farm, Charlton some three miles north-east of the Seabank site (Burchill 1989) and at Harry Stoke (Burchill 1995), but they appear to be restricted to the northern fringe of the modern city of Bristol. The dating of this material is problematic however. Some of the pottery can be assigned to the 11th-12th century whilst the rest remains undated except when it is found in association with dated Bristol wares.

The previously unrecorded coarsewares identified at Seabank remain an enigma. Some were directly comparable to pottery found at Elm Farm, others were similar to Elm Farm types but were clearly not the same. The distribution of these wares appears to be restricted to the south-west corner of South Gloucestershire. Many of the fabrics are broadly similar and this, together with their very restricted distribution, suggests that the pottery may be the result of small-scale local production perhaps on a seasonal basis.

Although many of the vessels showed evidence of sooting or heat damage and a number contained calcareous residues, no conclusions could be reached on their use other than as conventional cookpots.

SEABANK POTTERY TYPE SERIES (SBT)

The pottery recovered from excavations at the Seabank site included a number of fabric types not previously recognised from excavations in the Bristol/South Gloucestershire area. A site specific type series of only Romano-British and the medieval wares was produced as all of the post-medieval pottery was typical of that found throughout the region.

To assist in the dating of the material the pottery types were compared to other local type series in particular Bristol (Ponsford 1988, Burchill forthcoming), Charlton - Elm Farm (Burchill 1989) and Gloucester (Vince & Goudge). Only the Bristol and Charlton type series proved relevant.

SBT 1 Hard red sandy fabric containing abundant quartz.
Ham Green cookpot fabric.
Dated to 1120-1300 depending on form.

SBT 2 Hard, grey, gritty fabric with abundant quartz and sparse limestone.
12th century, Ham Green (Vince's Proto Ham Green).

SBT 3 Hard fabric with brown surfaces and grey-black core. Contains common quartz and sparse limestone and shell. Slight pitting of some internal surfaces.
Similar to BPT 3 which is dated in Bristol to 1000-1080.

SBT 4 Hard 'soapy', grey fabric with buff surfaces tempered with white and grey limestone and rare iron ores. Some sherds have pitting.
Hand-built cookpots similar to CEFT 22 and BPT 2.
Dated to 1000-1070 on basis of comparisons.

SBT 5 Hard, gritty, black cored grey fabric with common quartz, moderate limestone and sparse iron ores.
Cookpots.

SBT 6 Bristol/Redcliffe wares.
Same as BPT 118. 1250-1350.

SBT 7 Minety type wares.
Same as BPT 18 and 84.
Dated 1080-1500 depending on form and potting technique.

SBT 8 Hard `soapy', grey-black fabric with abundant limestone, rare shell and very rare quartz.

Laminated fabric. Heavy surface protrusion with some leaching of limestone.
Cookpots similar to CEFT 18 which was probably pre-Conquest.

SBT 9 Hard sandy fabric with buff-brown surfaces and black core. Inclusion of abundant very fine quartz and sparse to moderate mica. Traces of green glaze.

SBT 10 Not issued.

SBT 11 Hard, calcareous grey fabric, often with a buff surface containing abundant fine mica and quartz fragments with sparse to moderate flint (coarser fabrics usually considered earlier).
Same as BPT 46, CEFT 11 and 35, Bath A, Cheddar J. In Bristol dated to 1150-1250, earlier in Bath and Cheddar. Cookpots, jars, west country dishes, rarely jugs.

SBT 12 Grey fabric with a hard, buff surface containing variable amounts of quartz, moderate limestones, sparse sandstones, rare chert and iron ores.
Hand made cookpots same as BPT 309 and CEFT 34.
Dated in Bristol to ?950-1080.

SBT 13 Hard, gritty, grey fabric with brown surfaces containing common sub-round to rounded clear and coloured quartz, sparse ?Dolomite and rare iron ores. Open, laminar fabric with surface protrusion.

SBT 14 Hard, smooth, grey-brown fabric with black surfaces containing common fine quartz. Surfaces are wiped and dusted with very fine crushed quartz.
Romano-British.

SBT 15 Hard, white buff fabric with sparse to moderate quartz.
South-west French jugs. Dated to 1250-1400.
Same as BPT 157.

SBT 16 Hard well-fired dark coloured fabric with common quartz, rare iron ores and fine calcareous grits. Inclusions very variable.
Similar to BPT 5 which is dated 1080-1120.

SBT 17 Brown, moderately hard, smooth fabric with no visible inclusions.
Romano-British.

SBT 18 Hard, gritty fabric with grey core and buff surfaces. Fabric tempered with common quartz, rare quartz sandstones and iron ores and very rare quartzite. Protrusion of quartz on surface gives sparkle.

SBT 19 Ham Green jugs.
Dated to 1120-1300 depending on fabric and form.
Same as BPT 26 and 27.

SBT 20 Moderately hard, smooth, grey fabric with buff surfaces containing common limestone, rare iron ores and ?fine calcite. Some surface pitting and lamination of core.
Similar to SBT 4 but probably the same as CEFT 45.

SBT 21 Hard, sandy grey/black fabric with grey/brown surfaces containing abundant limestone, very common quartz, moderate opaques (?iron ores) and rare quartzite. Fabric is laminated with heavy pitting, sometimes appears burnished. Very thick walled vessels.
Date uncertain but certainly pre-Conquest.

SBT 22 Hard, sandy dark coloured fabric with abundant quartz and rare limestones.
Possibly variant of SBT 16. Similar to BPT 5 dated 1080-1120.

SBT 23 Hard, gritty, black fabric with grey surfaces containing common quartz, moderate limestone and rare iron ores.
Cookpots.

SBT 24 Moderately hard, slightly sandy grey black fabric with buff colour coat. Matrix includes rare very fine quartzite and very rare, very fine quartz. Surfaces are dusted with mica.
Romano-British.

SBT 25 Hard, pimply, grey/buff fabric with common limestone, moderate quartz and very rare iron ores. Surfaces are cracked and pitted with limestone protrusion.

SBT 26 Hard, greasy, brown fabric containing moderate limestone and sparse iron ores and quartz in a matrix containing crushed quartz. Inclusion visible on surface with some pitting.

SBT 27 Hard, grey fabric, buff externally with moderate clear and coloured quartz and rare iron ores and limestone.
Surface sparkle from crushed quartz. Few dark grits also visible on surfaces.

SBT 28 Hard, grey fabric containing sparse quartz, rare quartzite and very rare iron ores in a matrix containing crushed quartz. Surface sparkle. Surfaces probably wiped.

SBT 29 Hard, grey fabric with pimply surface. Moderate quartz, sparse iron ores and flint. Some surface protrusion.
Possible variant of SBT 11.

SBT 30 Hard, gritty, grey fabric with orange surfaces containing common limestone, rare to sparse iron ore and rare quartz. The quartz is visible on surface.

SBT 31 Hard, sandy grey fabric with orange brown surfaces. The fabric contains abundant quartz, variable limestone and sparse shell. Some spalling of internal surfaces.
Same as BPT 20. 1070-1100

SBT 32 Hard, sandy grey to orange fabric with orange brown surfaces. Fabric contains abundant quartz, sparse limestone and shell and rare carbonized organic matter.
Very similar to SBT 31 except for organic matter - may be from same source.
?1070-1100

SBT 33 Hard, sandy, grey fabric with buff surfaces containing common quartz, rare quartzitic

sandstones, rare ?quartzite and iron ores. Matrix contains crushed quartz.
Chaotic fabric with frequent voids.

SBT 34 Hard, smooth, grey fabric with buff surfaces containing common (fine) dark red grits, rare quartz and very rare quartzite. External surface sparkles and is usually wiped.

SBT 35 Hard, sandy, rather laminar dark grey fabric with buff to orange brown surfaces. The fabric contains common quartz and limestone, rare shell and very rare feldspar. Surface protrusion of limestone with voids.

SBT 36 Hard,smooth dark brown fabric with grey surfaces. Inclusions of abundant quartz, rare flint and ?quartzitic sandstone. Limestone only visible on surface.

SBT 37 Hard, greasy grey black fabric with abundant limestone and rare quartz. Surfaces wiped, with some pitting.
Similar to BPT 2. 11th century.

SBT 38 Hard, sandy fabric with abundant quartz and rare iron ores. Slightly calcareous.
Similar to BPT 74. Probably 1275-1400.

SBT 39 Hard, sandy grey fabric containing abundant quartz, moderate iron ores and sparse limestone. Romano-British - Greyware.

SBT40 Hard, smooth grey fabric with moderate iron ores, sparse quartz, quartzite, limestone and small stones. Matrix reacts strongly with HCl.
Romano-British - Greyware

SBT 41 Hard, sandy, brown fabric with common quartz, rare quartzite, rare iron ores, and very rare limestone.
Similar to CEFT 40. Probably Saxo-Norman.

SBT 42 Hard, gritty grey fabric with brown surfaces. Fabric contains moderate quartz, rare iron ores and very rare limestone. Heavy surface protrusion. Coarse open, rather chaotic fabric.

SBT 43 Hard, sandy brown fabric with abundant quartz, sparse ?mica or crushed quartz, rare iron ores and very rare calcite.

SBT 44 Hard, buff fabric containing abundant Jurassic limestone, common red grits (?iron ores) and sparse mica. Surface protrusion of limestone and iron ores with pitting.
Variant of CEFT 45

SBT 45 Hard, sandy grey fabric with buff surfaces. Inclusions of common white grits, common dark grits and rare quartz. Mica dusted surface. ?colour wash internally. Biconical vessel.
Romano-British.

SBT 46 Hard, gritty, grey fabric with orange brown external surface. Inclusions of abundant quartz, common dark grits (?iron ores) and moderate limestone.

SBT 47 Hard, gritty dark brown fabric with common quartz and red iron ores. Chaotic fabric with wiped surfaces.

SBT 48 Hard, gritty grey fabric with abundant quartz. Jugs with thin patchy green glaze and wavy comb decoration.
Same as BPT 121. 1300-1350.

SBT 49 Same as SBT 47.

SBT50 Hard, gritty, black laminar fabric with light grey(?colour coat) on external surface. Inclusions of abundant quartz and common limestone. Heavy surface protrusion.

SBT 51 Hard, slightly sandy grey fabric with orange buff surfaces. Few visible inclusions - rare quartz and iron ores. Mica dusting to surface. Matrix may contain very fine crushed quartz or mica. ?Traces of internal glaze.
Romano-British.

SBT 52 Romano-British Oxford Colour Coated ware.

SBT 53 Hard, sandy grey fabric with buff to red brown surfaces. Inclusions of abundant limestone, sparse iron ores, rare quartz and small stones, very rare quartzitic sandstone. Laminated fabric with heavy surface pitting. Strong reaction to HCl.
Variant of SBT 12 (BPT 309). 11th century.

CATALOGUE OF ILLUSTRATED POTTERY SHERDS (Fig.9)

1. Upright simple rim with rounded profile.
   SBT 37; Period 1/2.
2. Upright simple rim with external bead. Twin thumb indentations on lip.
   SBT 12; Period 2.
3. Upright simple rim with external bead.
   SDT 12; Period 2.
4. Wheel stamp decoration.
   SDT 12; Period 2.
5. Lower profile of a rounded cookpot with sagging base. Some sooting externally. Calcareous deposit internally - probably limescale.
   SBT 12; Period 2.
6. Simple upright rim with external bead. Sooting to shoulder.
   SBT 12; Period 2.
7. Simple upright rim with external bevel and internal grooves. Sooted internally.
   SBT 12; Period 2.
8. Everted, rather flattened, hammer-head rim with applied strip below.
   SBT 21; Period 4.
9. Curved, simple rim with slight external bead and internal groove.
   SBT 2; Period 4.
10. Simple everted rim, slightly rounded externally. Heavy external sooting.
    SBT 2; Period 4.
11. Slightly everted simple rim with external bead.
    SBT 1; Period 4.
12. Upright simple rim. Pot has a rounded profile.

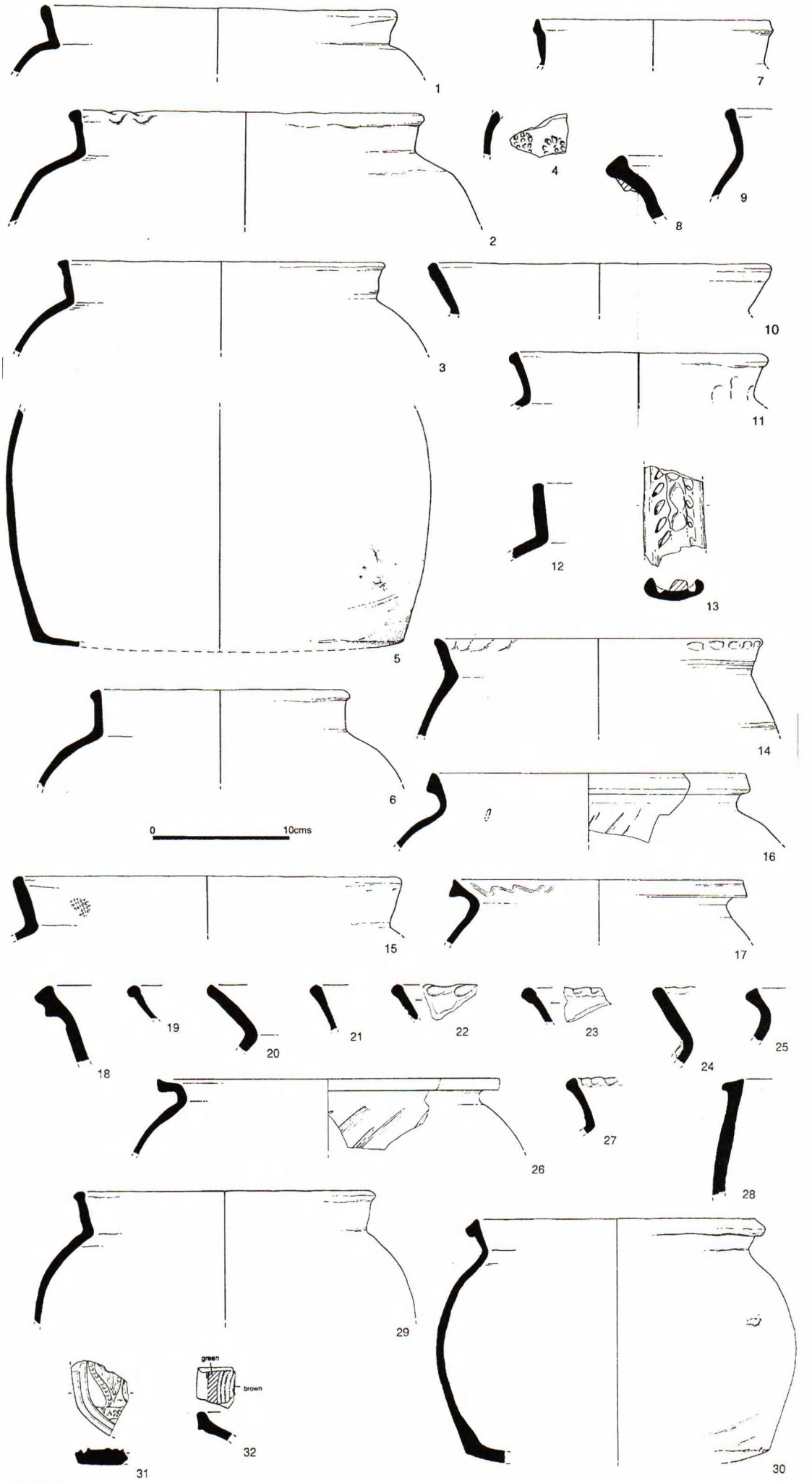

Fig.9 The pottery

SBT 2; Period 4.

13. Grooved strap handle with central applied strip and teardrop stab decoration.
    SBT 7; Period 4.
14. Upright simple rim with thumb-pinched top and external 3T comb decoration.
    SBT 1; Period 4.
15. Slightly everted simple rim with grid stamp decoration internally.
    SBT 12; Period 4.
16. Acutely curved hammer-headed rim.
    SBT 38; Period 4.
17. Strongly curved hammer-headed rim with internal wavy comb.
    SBT 38; Period 4.
18. Everted squared-edge rim with angular applied strip below. Sooted externally.
    SBT 21; Period 4.
19. Strongly everted rim with crude external bead and internal fold.
    SBT 2; Period 4.
20. Strongly everted simple rim.
    SBT 2; Period 4.
21. Simple everted rim with slight internal bevel.
    SBT 2; Period 4.
22. Everted rim with external bead and thumb indents on inner lip. External wavy comb.
    SBT 2; Period 4.
23. Everted rim thumb-pinched internally with external fold.
    SBT 2; Period 4.
24. Simple everted rim with applied strip to shoulder.
    SBT 2; Period 4.
25. Simple curved rim, externally rounded. Concave internally.
    SBT 2; Period 4.
26. Strongly curved squared almost flange-top rim. Diagonal comb to shoulder of vessel. Splashed green glaze externally and over rim top.
    SBT 7; Period 4.
27. Slightly everted rim with external fold. Thumb-pinched edge.
    SBT 42; Period 4.
28. Cylindrical cookpot. Upright rim with external bevel.
    SBT 21; Period 4.
29. Simple rim with slight evert. Externally sooted.
    SBT 11; Period 4.
30. Rounded profile cookpot with everted externally bevelled rim and sagging base. The vessel displays signs of heat damage to the lower body and rim.
    SBT 35; Period 5a.
31. Part of a decorative motif. Possible medallion from chafing dish. Motif includes inscription ?'TARO'. Green and brown glaze.
    South-West France; Period 5b.
32. Rim fragment of a Werra Ware dish with typical turquoise and manganese decoration. Period 5b.

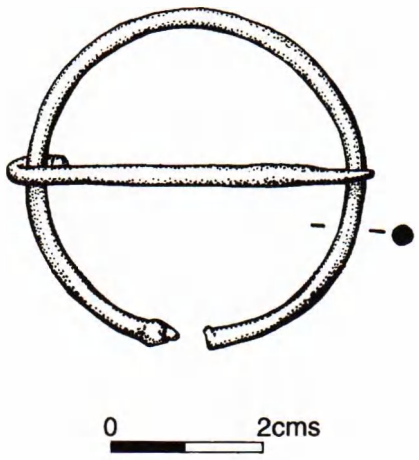

Fig.10 The 14th century brooch

THE PALAEOENVIRONMENTAL ANALYSES

by Julie Jones

The excavation at Seabank confirmed the same sequence of drainage ditches revealed during the evaluation there by John Brett in 1995. As part of the evaluation a palaeoenvironmental assessment was carried out on deposits from the 12th-century ditch where the fragmented remains of a pot were recovered associated with clay containing charcoal flecks. The results from the assessment showed that this deposit was relatively rich in plant macrofossil remains with charred grain, chaff and weed seeds recovered as well as the waterlogged remains of rushes giving some indication of the local environment. Several hundred fragments of animal and fish bone were also recovered. The full results are shown in Jones (1995).

In view of the results of the evaluation work a programme of palaeoenvironmental analyses was planned to help establish the nature of the excavated ditches as well as the type of environment into which they were cut. It was hoped that analysis of the diatoms (unicellular algae with frustules of silica) and foraminifera (single celled protozoans with shells of calcium carbonate or silica) would provide information on salinity levels in the ditches, and that analysis of bulk samples for plant macrofossils would allow the reconstruction of the local vegetation and might give an indication of human occupation and influence in the immediate area.

The individual specialist reports were carried out by Nigel Cameron (diatoms), Mike Godwin (foraminifera), Heather Tinsley (pollen) and Julie Jones (plant macrofossils). In view of the poor preservation and low concentrations of the diatoms, forams and pollen, analysis was only carried out to assessment level, but full counts were made on the plant remains from the ditch fills in Trench 2. Full details of the assessments and methodologies

used by each specialist are included in their archive reports, but their results are incorporated into the summary discussion of the environmental reconstruction.

Methodology

In Trench 1 a 50cm monolith was taken through the peat and clay in order to obtain a radio-carbon date for placing the deposits into the sequence shown elsewhere along the Severn Levels. Analyses of forams, diatoms, pollen and plant macrofossils were also carried out to show the sequence of sediment accumulation and provide information on both the local and regional vegetation development. Details of the plant macrofossils and pollen are given in Table 2.

Bulk samples were recovered from Trench 2 during the excavation for the analysis of the plant macrofossil remains. Previous work in these sediment types has shown that concentrations of macrofossil remains tend to be very low and so large samples, averaging 32.4kg/17.7 litres were taken. The samples were sieved in a flotation tank to a 500 micron residue size and a 250 micron float. Despite the large initial sample size the resulting floats and residues after sieving were relatively small, averaging 8.41 grams (float) and 451 grams (residue). Both residues and floats were dried before sorting under a low-powered microscope. The range of material recovered is shown in Table 3 and the charred and waterlogged plant remains recovered in Table 4. Nomenclature and habitat information is based on Stace (1991).

Results from Trench 1.

The top of the monolith lay at 4.72m OD. The following stratigraphic sequence was recorded - all measurements are from the top of the monolith.

0-4cm	Dark olive grey (2.5GY 4/1) clay (44)
4-19cm	Olive black (7.5Y 3/2) clay with fragmented plant matter. Higher concentration of organic matter than below (45)
19-37cm	Dark olive grey (2.5GY 4/1) clay with fragmented plant matter (46)
37-39cm	Olive black (7.5Y 3/1) clay with fragmented plant matter (165)
39-43cm	Black (5YR1.7/1) peat. This lies at 4.32-4.29m OD. (47)
43-50cm	Dark olive grey (2.5GY 4/1) clay with fragmented plant matter (48)

Samples for forams and diatoms were recovered from the clay above and below the peat and for pollen from the top and bottom of the peat itself. In association with this a series of bulk samples were taken at 5cm intervals through the whole sequence for plant macrofossil assessment. Sample size varied from 2kg/1.3 litres to 3.4kg/2.8 litres. A sample was also taken at 42-43cm from the base of the peat for radio-carbon dating (see below, Discussion, The Organic Beds). The results discussed below are based on assessment counts only.

43-45cm: Below the peat band (48)

The only diatoms recovered (43-44cm) were two highly dissolved fragments comparable to the marine species Pseudopodosira westii, a taxa typical of the Severn Estuary. No forams were preserved.

39-43cm: Peat band (47)

Two bulk samples were taken from this band for the recovery of plant macrofossil remains (41-43cm and 39-41cm). Despite the relatively large sample size (2kg/1.3litres and 1.75kg/0.8 litres), the floats after sieving were small. Pollen samples were also taken at 39-40cm and 42-43cm.

The bulk samples from 41-43cm were well humified with predominantly finely fragmented and unidentifiable plant remains. However over 500 seeds of rushes were present, together with the aquatic water crowfoot (Ranunculus subg. Batrachium) and water plantain (Alisma sp) and damp ground species celery-leaved buttercup (Ranunculus sceleratus), marsh pennywort (Hydrocotyle vulgaris) and bulrush (Typha sp). Charcoal fragments were also noted. 99 pollen grains were counted from 42-43cm, half were Poaceae (grasses) and just less than half Chenopodiaceae. The latter are a type with 12 pores per facet, the group including Atriplex, Salicornia, and some Chenopodium species (Andrew 1984). There were only occasional tree pollen grains. 15 spores of an undetermined bryophyte were noted. The sample was full of charcoal, 813 fragments greater than 50 microns were recorded in the 5 traverses counted and smaller fragments were so frequent that the slide appeared black. The concentration of pollen in this sample is high, but preservation generally is very poor with a high proportion of corroded (thin) grains. As a result the grains identified and counted should not be considered a representative pollen spectrum as differential losses will certainly have occurred.

The macrofossil sample from the top of the peat (39-41cm) produced a very small float and consisted predominantly of rush seeds, as well as a few water plantain, celery-leaved buttercup and water mint (Mentha sp). The presence of these plants suggests a predominantly freshwater environment. Of the 98 pollen grains counted from 39-40cm more than 75% are Poaceae, all other types are represented by occasional grains only. Tree pollen types together account for 14% of all grains. Only 2 grains of Chenopodiaceae were recorded. One grain of Eryngium (sea holly), a very distinctive Apiaceae grain, was noted. Fern spores are frequent (48) and 12 spores of an undetermined bryophyte were noted. Charcoal is also frequent in this sample, 230 fragments greater than 50 microns were found in the 4 traverses carried out and smaller fragments were abundant. The concentration of pollen is high but the preservation of the grains is generally poor, all grains (including those positively identified) show marked thinning and some loss of surface features. Some grains have swollen and then ruptured and collapsed. There will almost

certainly have been differential loss of pollen due to poor preservation.

37-39cm: Above the peat band (165)
A low concentration of poorly preserved diatoms was present in this sample containing marine, brackish and freshwater taxa. Marine species include many fragments of Paralia sulcata, fragments of Podosira stelligera and Rhaphoneis sp. The brackish water species include Diploneis interrupta which is tolerant of desiccation and is often found in brackish, semi-terrestrial habitats such as saltmarshes. A freshwater component is suggested by Pinnularia major, although this can also be found in terrestrial habitats such as soils. Only a limited middle salt-marsh foram assemblage was recovered with one species Jadammina macrescens being tolerant of desiccation.

2-22cm: Above peat band, from clay with higher organic content (45)
A further series of bulk samples were taken from the band where the concentration of organic material in the clay appeared to be greater than elsewhere. However, only very small organic floats were recovered and these were well humified, consisting mostly of unidentifiable fragments. The seeds which survived consisted predominantly of rush, with mint and celery-leaved buttercup. Small woody fragments were noted in 12-17cm and 7-12cm associated with single examples of elder. The pollen from 18-19 cm is dominated by sedges which form over half the total of 115 grains counted. Chenopodiaceae form 20% of the total pollen with grasses less than 10%. Tree pollen forms 17% of the total pollen and this is largely Quercus (oak). Only occasional charcoal fragments occur in this sample and the overall preservation is fair. The sample from 4-5cm is dominated by pollen of Chenopodiaceae (51%) with Poaceae also frequent making up about a third of all pollen counted (34%). Tree pollen accounts for 13% of total pollen, mainly Quercus and Corylus (hazel). Occasional charcoal fragments are found. The pollen preservation is not good. Although only 30 corroded grains are recorded, many of the grains that were identified showed some deterioration and it is likely that there have been differential losses of pollen.

Interpretation
Owing to the poor preservation of the diatoms, forams and pollen any interpretation has to be treated with caution. The poor preservation of pollen suggests that this material may have been subjected to periodic drying out followed by oxidation. However, the samples do show some marked variations.

Only diatoms were preserved from below the peat band and these suggest estuarine conditions. The lowest pollen sample from the base of the peat bed has a spectrum which suggests brackish water or salt marsh conditions with the high percentages of grasses and Chenopodiaceae. Plants of this family include many tolerant of brackish conditions and some true halophytes such as Salicornia (glasswort) and Atriplex (orache). The plant macrofossils from this level however suggest freshwater conditions with aquatic and marsh species, although rushes can be found in a wide range of habitats. It seems likely that this represents the onset of freshwater conditions allowing peat accumulation.

The pollen sample from the top of the peat is completely dominated by grasses and has few Chenopodiaceae which suggests less brackish conditions Tree pollen values are a little higher than in the basal sample. The plant macrofossils suggest a continuation of freshwater conditions. Both samples from the peat contained a concentration of charcoal fragments which may suggest human activity at this time.

The limited foram and diatom assemblages present in the clay which accumulated above the peat band suggest the onset of more estuarine conditions with marine and brackish species present. The pollen sample from the base of the upper organic clay at 18-19cm is dominated by sedge pollen with a return to fairly high Chenopodiaceae values possibly suggesting more halophytic conditions which could be linked to inundation. There are a number of sedges which thrive in estuarine and brackish water conditions (one example is Bolboschoenus maritimus, sea club-rush). The uppermost sample from the monolith has even higher Chenopodiaceae values but the sedges have declined and grasses have increased. The macrofossils are again predominantly rush, with a freshwater component suggested by water mint.

Results from Trench 2 - the local environment of the ditches - evidence from the diatoms, forams and waterlogged plant macrofossils.
The samples examined for diatoms and forams were restricted to the primary ditch fills, to give an indication of the nature of the ditches, such as whether they contained standing water, with additional information on salinity levels. The results were only taken to assessment level as preservation was variable, with diatoms only preserved in the 12th and 13th ditches and concentrations of forams low throughout. The waterlogged plant remains only are discussed here as being relevant to the natural environment of the ditches. The charred material is interpreted as being representative of domestic waste deliberately placed in the ditch and is discussed later in more detail.

Period 1: The 11th-Century Ditch. (Context 119)

25-26cm: The foram fauna is typical of a marsh creek possibly in the lower salt marsh where strong fluctuations of salinity occur on a diurnal basis. The presence of two marine species suggest an uninterrupted connection to main estuary. There is also an indication of freshwater movement from further inland.
9-10cm: The forams suggest an open marsh creek environment at middle saltmarsh level with the marine species Fursenkoinia fusiformis again demonstrating an open connection to the estuary.

Diatoms were not preserved in this ditch. The waterlogged macrofossil remains are predominantly rush seeds with the aquatic water-crowfoot which can grow in shallow water or on bare mud. Both of these species can tolerate both freshwater and brackish conditions. The presence of the egg cases of water fleas are more indicative of freshwater conditions.

Summary:
The ditch was apparently open to the estuary with foraminifera from lower to middle saltmarsh levels, as well as marine species being washed in. The lower saltmarsh forms an area which is covered by the tide for 50% of the day, resulting in a high concentration of salt in the sediment. However, there is an indication of freshwater suggested by both the plants, water flea egg cases and a thecamoebian (an amoebae) which demonstrates the movement of freshwater through the system from further inland.

Period 2: The 12th-Century Ditch (Context 126)

102-103cm. The forams were typical of a lower saltmarsh creek fauna with the presence of Ammonia beccarii forma limnetes suggesting rapidly fluctuating salinities. No diatoms were preserved in this sample.
86-87cm: The single species of foram (Elphidium oceanensis) recovered here is typical of shallow, sub-tidal conditions and occurs in pools, ponds and lagoons. A brackish water species of ostracod was also present which most commonly occurs in lower saltmarsh tidal levels. It appears that the ditch had become blocked at its seaward end creating an artificial pond and was probably permanently inundated with at least a few centimetres of water and without a circulation of fresh marine waters, was probably stagnant. Diatoms were not preserved at this level.
62-63cm: A low concentration of poorly preserved diatoms occurred at this level. The most abundant are two species of brackish water taxa living on or near the bottom substratum (benthic) or possibly growing on aquatic plants living in the ditch. Also present are the valves of two benthic freshwater species (Gomphonema angustatum and Synedra ulna). The freshwater species Hantzschia amphioxys is also tolerant of desiccation and is common in ephemeral aquatic environments such as ditches. Two valves of marine taxa are also represented. The forams include a species which prefers an open, unvegetated muddy habitat, such as marsh creeks and pools and is tolerant of a wide diurnal salinity range.

Summary:
It would appear that a simple silting up process occurred here with the base of the ditch foram fauna indicating an environment similar to a free-flowing marsh creek. This appears to have begun to silt up perhaps towards the estuary end of the ditch, the reduction in water flow making the ditch more pond-like as the water became more shallow and stagnant. The forams and diatoms recovered range from freshwater, to brackish and marine suggesting an area where

WATERLOGGED PLANT MACROFOSSILS							
		peat	peat	clay	clay	clay	clay
Depth (cm)		41-43	39-41	17-22	12-17	7-12	2-7
Sample size (kg/litres)		2/1.3	1.75/1.5	2.75/1.5	2.8/1.5	3.4/2.9	3.4/2.8
Ranunculus sceleratus L.	Celery-leaved Buttercup	**	**	*			
R. subg. Batrachium (DC.)A.Gray	Water Crowfoot	*					
Hydrocotyle vulgaris L.	Marsh Pennywort	**					
Mentha aquatica L.	Water Mint		*				**
Sambucus nigra L.	Elder				*	*	
Alisma sp	Water Plantain	*	*				
Juncus spp	Rush	***	***	***	***	***	**
Poaceae indet		*					
Typha sp	Bulrush	*					
Wood fragments					p	p	
Charcoal fragments		p					
* = few, less than 5. ** = frequent 5-20. *** = abundant 100+ p = present							
POLLEN							
		peat	peat	clay			clay
Depth (cm)		42-43	39-41	18-19			4-5
Pollen counted		99	98	115			108
Pinus (pine)		2		1			
Betula (birch)			1				1
Alnus (alder)		1	5	3			2
Corylus (hazel)		4	4	3			5
Quercus (oak)			3	12			6
Tilia (lime)			2				
Poaceae (grasses)		49	77	10			34
Cyperaceae (sedges)			2	61			5
Chenopodiaceae		42	2	23			51
Asteraceae *Cirsium* type (thistle)		1					
Asteraceae *Taraxacum* type (dandelion)				1			
Apiaceae undifferentiated			1				
Apiaceae *Eryngium* (sea-holly)			1				
Saxifragaceae *Chrysosplenium* type (golden saxifrage)				1			
Rosaceae *Agrimonia* type (agrimony)				1			
Rubiaceae			1				1
SPORES							
Filicales undifferentiated (ferns)		2	48	3			6
Polypodiaceae (polypody fern)		1		2			1
Pteridium aquilinum (bracken)		2		7			6
Bryophytes undifferentiated (moss)		15	12				
Crumpled grains		15	13	1			8
Corroded grains		139	60				30
Degraded grains		4	8				
Obscured grains				2			
Traverses		5	4	7			7
Charcoal fragments > 50 microns		813	230	occ			occ

Table 2 Assessment of plant macrofossils and pollen from Trench 1

brackish and marine waters from occasional tidal inundation became incorporated with freshwater runoff from the land

The bulk samples from the lower clay fill of this ditch (context 126) contained the waterlogged remains of rush and duckweed both species also tolerant of freshwater and brackish conditions, although duckweed will only thrive in still water conditions.

The upper ashy fill (context 132) also contained abundant rush and duckweed seeds, but primarily consisted of a rich deposit of charred cereal and weed remains together with other domestic waste which is likely to have been deliberately deposited in the ditch.

Period 3: The 13th-Century Ditch (context 138)

Two samples were taken from the primary fill of this ditch

	DITCH FILLS							BURIED SOIL HORIZON	
	Period 1	Period 2	Period 3	Period 4	Period 5	Period 5a/5b	pre-13th		
		lower fill	upper fill						
CONTEXT NO	119	126	132	138	131	53	136	140	154
SAMPLE SIZE kg/litres	49.9/34	7.75/4	37.35/20	44.5/22	13.7/7.5	45.6/23.8	18.3/10	48.6/24	25.7/14
RESIDUE grams	221	185	780	795	216	285	215	513	850
FLOAT grams	5.15	1.8	36.8	3.8	4.4	13.9	2.03	5.26	2.6

MATERIAL RECOVERED FROM SAMPLES									
Waterlogged plant macrofossils	*	*	*	*	*	*	*	*	*
Charred plant macrofossils	*	*	*	*	*	*	*		
Animal/fish bone	*		*	*	*	*	*		
Egg shell	*		*	*		*			
Molluscs	*				*	*			
Cladoceran ephyppia	*			*					
Daub/fired clay			*			*			
* present									

Table 3 Details of sample size and materials recovered from samples in Trench 2

(35-36cm and 19-20cm). Diatoms were only preserved in the 19-20cm sample and the forams recovered from both samples were similar although numbers recovered were very low. Single specimens of Elphidium excavatum forma lidoensis and Ammonia beccarii forma limnetes suggests lower saltmarsh, and the ostracod Cyprideis torosa is a common brackish water species often abundant at lower saltmarsh tidal levels. The diatoms from the upper sample contained a low concentration of poorly preserved valves. The most common was a brackish water species (Bacillaria paradoxa) with a single fragment comparable to the marine species Actinoptychus undulatus. The freshwater species, (Hantzschia amphioxys), typical of ephemeral aquatic conditions, also found in the 12th-century ditch, was again present.. The waterlogged plant macrofossils consisted of an abundance of rush seeds, with fragmented remains of hemlock (Conium maculatum), a plant of damp habitats such as stream margins and ditches. These are likely to be more suggestive of the ground surface in the area around, rather than in the ditch. Over 100 cladoceran ephyppia were also noted. These are the egg cases of the water fleas (Cladocerans), small crustaceans, which are important in the economy of fresh water and are found in all types of standing water such as ponds, ditches and small temporary pools.

Summary:
It would seem that this ditch was affected by the flushing of brackish waters from lower saltmarsh levels although a freshwater element is still present.

Period 4: The 14th-Century Ditch. (context 131)

Two samples were taken from the primary fill of this ditch. Diatoms were absent from both samples.
60-61cm: The forams from this level are more indicative of upper to middle saltmarsh levels. Trochammina inflata is tolerant of a wide salinity range but is generally indicative of low salinity levels.
36-37cm: This foram assemblage is typical of a middle saltmarsh. However the presence of Elphidium oceanensis is indicative of standing water in the ditch. This may indicate partial obstruction at the seaward end of the ditch which did not allow it to drain completely, although it appears to have been well flushed. Waterlogged rush seeds are again present, and the presence of the aquatics duckweed and water crowfoot may suggest still or ephemeral waters.

Period 5: The 17th-Century Ditch (context 53).

Only one sample from the primary fill of this ditch was recovered (47-48cm). No diatoms were preserved. Although sparse the forams are typical of a marsh creek with free-flowing conditions expected in the ditch and therefore subject to strong diurnal salinity fluctuations with the flood and ebb of the tide. The waterlogged plant remains are again dominated by rush, with a few duckweed and chara oospores.

All of the ditches, from all periods, produced a similar range of waterlogged plant remains consisting predominantly of rush seeds with varying amounts of duckweed, water crowfoot, stonewort and hemlock. Juncus is typically a species of damp ground such as marshes and wet meadows but of 28 species, six occur in brackish or saltmarsh environments. The aquatic water-crowfoot is mostly confined to still or slow flowing, often shallow water or on wet mud, but two species of this sub-genus, brackish water-crowfoot (Ranunculus baudotii) and fan-leaved water-crowfoot (R. circinatus) can occur in slightly brackish ponds and ditches. Similarly one species of duckweed, fat duckweed (Lemna gibba) occurs in rich, often brackish waters in ponds and ditches. These aquatic small-flowering plants often carpet water surfaces with their green floating leaves and grow only in still water. The macroscopic green algae Chara (stonewort), which anchors itself to a soft muddy or sandy substrate is usually found in shallow, clear water, although also often occurs in brackish localities. The egg cases of water fleas (cladoceran ephyppia) also occurred in the earliest and 13th century ditches. These are more typical of fresh standing water. It seems likely from the waterlogged macrofossils recovered that these ditches contained shallow standing water which was predominantly freshwater, but with occasional incursions of brackish water from high tides, which could be tolerated by some of the plant species mentioned. This may represent an area of upper saltmarsh close to the transition to dry land which was affected by both partial flooding during high tides with plants able to cope with the low salinity levels, but also

	CONTEXT NO:	119	126	132	138	131	53	136	140	154	HABITAT
CHARRED PLANT REMAINS.											
Grain											
Triticum sp	Wheat	8		35	10		13	6			
c.f. *Triticum* sp		1		10	2		2				
Triticum sp (tail grain)				34	3		1				
Hordeum sp	Barley	2		51	7		1	6			
Hordeum sp (hulled)		2		4							
Hordeum sp (straight)				8	2						
Hordeum sp (hulled/straight)							1				
Hordeum sp (tail grain)				23							
Hordeum sp (tail grain/straight)				5							
c.f. *Hordeum* sp		1	1	13			1	2			
Avena sp	Oat	7		109	20			7			
c.f. *Avena* sp				20	4						
Cereal indet		3	2	60	13		3	3			
Chaff											
Triticum sp (rachis internode base)				4	1						
Hordeum sp (rachis internode)				12							
Hordeum sp (rachis internode base)				10							
Avena sp (pedicel)					1						
Avena sp (awns)				**							
Cereal indet (embryo)				3							
Cereal culm nodes				7							
Silicified chaff											
Triticum/Hordeum awns	Wheat/ Barley			**							
Cereal indet (silicified frags)				**							
Poaceae indet (culm nodes)	Grasses			*							
Charred weeds											
CHARACEAE											
Chara sp (oospores)	Stonewort						1				A
RANUNCULACEAE											
Ranunculus acris/repens/bulbosus				4			5				DG
R. flammula L.	Lesser Spearwort						2				MPRw
R sardous Crantz	Hairy Buttercup				1						CDW
R. subg *Batrachium* (DC.)A.Gray	Water Crowfoot						1				APR

Table 4 Waterlogged and charred plant macrofossils from Trench 2

	CONTEXT NO:	119	126	132	138	131	53	136	140	154	HABITAT
CHENOPODIACEAE											
Atriplex spp	Orache	2		80	27		2	2			CDn
Chenopodium album L.	Fat-hen	1		4							CDn
C. ficifolium Smith	Fig-leaved Goosefoot			2							CD
C. polyspermum L.	Many-seeded Goosefoot			1							CD
CARYOPHYLLACEAE											
Stellaria media (L.)Villars	Common Chickweed			2			1				CD
POLYGONACEAE											
Polygonum aviculare L.	Knotgrass				1						CD
Rumex spp	Dock	1		3	2		28	2			
MALVACEAE											
Malva sp	Mallow			1							DW
BRASSICACEAE											
Brassica c.f. *nigra* (L.)Koch	Black Mustard						12				DRWs
ROSACEAE											
Prunus avium (L.)L.	Wild Cherry						1				HW-edge
Prunus spinosa L.	Blackthorn						1				HSW
Rubus sect *Glandulosus* Wimmer & Grab	Bramble						1				DHSW
FABACEAE											
Lathyrus/Vicia spp (1)	Vetch			12	1						
Lathyrus/Vicia spp (2)				6							
Lathyrus/Vicia spp (3)				6	8		1				
Lathyrus/Vicia spp (4)				3	10		4				
Lathyrus c.f. *nissolia* L.	Grass Vetchling				1						G
Medicago c.f. *lupulina* L.	Black Medick						1				GR
Medicago/Trifolium spp	Medick/ Clover				6	1	63	1			G
Trifolium c.f *dubium*							18				Gu
Vicia faba L.	Broad Bean						1				#
Vicia c.f. *tetrasperma* (L.)Schreber	Smooth Tare				1						G
APIACEAE											
Pimpinella major/saxifrage	Greater/ Burnet-saxifrage						2				GHW-edge
LAMIACEAE											
Prunella vulgaris L.	Selfheal						9				DG
PLANTAGINACEAE											
Plantago lanceolata L.	Ribwort Plantain			1			17				G
P. major L.	Greater Plantain			2	1						CDGo
SCROPHULARIACEAE											
Rhinanthus minor L.	Yellow Rattle			1							G

Table 4 (continued) Waterlogged and charred plant macrofossils from Trench 2

affected by fresh water run-off from the land. The transition from the top of the upper saltmarsh region is often marked by the presence of sea rush (Juncus maritimus), which grows on the high water spring tide mark, which gives way to a freshwater marsh where sedges, particularly sea clubrush (Bolboschoenus maritimus), are common. Charred fruits of sea clubrush were recovered from the ashy fill of the 12th-century ditch and may suggest the exploitation of such a reed and sedge covered environment.

The Buried Soil Horizon

Vertical sections at the southern end of the trench showed two thin bands of organic clay thought to represent an old land surface. Samples were taken from these bands (133-134cm and 132-133cm) as well as from the clay below (134-135cm) and the clay above (131-132cm). Diatoms were absent from all four samples assessed. A bulk sample from the old land surface produced over 1000 rush seeds and a few charcoal flecks.

134-135cm: Only 3 forams were recovered and suggests a semi-permanently inundated marsh pool in the lower salt-marsh surface, which was possibly stagnant in the summer during periods of low tides.

133-134cm: Only one foram Elphidium willaimsoni a lower saltmarsh species was present. No pollen was found in this sample, although a few fern spores were observed (see Table 5) and one spore of Sphagnum plus occasional charcoal fragments. However, tiny pink stained fragments of organic material were fairly frequent in the preparation.

132-133cm: Preservation was poor with a meagre assemblage of a lower saltmarsh forams. No pollen was found in this sample with again just a few fern spores, 4 Sphagnum spores and occasional tiny charcoal fragments. Very few pink stained organic fragments occurred in this preparation.

131-132cm: No forams were preserved.

	CONTEXT NO:	11 9	12 6	13 2	13 8	13 1	53	13 6	14 0	15 4	HABITAT
RUBIACEAE											
Galium aparine L.	Cleavers			5		1	1				CHSo
DIPSACACEAE											
Dipsacus fullonum L.	Wild Teasel			1							DRW
ASTERACEAE											
Anthemis cotula L.	Stinking Chamomile	10		27 1	47		1	8			CDd
Anthemis sp (receptacle)	Chamomile			1							
Centaurea nigra L.	Common Knapweed						1				DG
Chrysanthemum segetum L.	Corn Marigold			1							Ca
Hypochaeris radicata L.	Cat's Ear						1				GW
Leucanthemum vulgare Lam	Oxeye Daisy						1				G-rich soil
Picris echioides L.	Bristly Oxtongue			1							DHWc
Tripleurospermum inodorum (L.)Schultz-Bip	Scentless Mayweed	1		17	1						CD
Tripleurospermum sp	Mayweed			9							
ALISMATACEAE											
Alisma sp	Water Plantain										APR
Alismataceae indet				1							
JUNCACEAE											
Juncus spp	Rush						6				GMRw
CYPERACEAE											
Bolboschoenus maritimus (L.)Palla	Sea Club-rush			16							ws
c.f. *B. maritimus*				15							
Carex spp	Sedge			24	1		20				
Eleocharis palustris/uniglumis	Spike-rush		1	13 4							MPw
Eleocharis palustris/uniglumis (silicified)	Spike-rush			11 0							MPw
POACEAE											
Anisantha c.f. *sterilis* (L.)Nevski	Barren Brome				1						CDGo
Bromus racemosus/hordaceus/secalinus spp	Smooth/Soft /Rye Brome				4		1				
Bromus sp	Brome							1			CD
c.f. *Bromus* sp	Brome							2			
Cynosurus cristatus L.	Crested Dog's-tail						14				G
Danthonia decumbens (L.)DC.	Heath-grass						1				Lw-sandy/peat
Lolium temulentum L.	Darnel			1							CD
Phleum/Poa spp	Cat's-tails/ Meadow-grass	1					15 2				
Phleum spp	Cat's-tails						33				
Poaceae indet			2		36	9	55				
Indet				27			15				

Table 4 (continued) Waterlogged and charred plant macrofossils from Trench 2

The poor preservation of environmental evidence from the buried soil horizon is disappointing. There is certainly organic material present which was noted on the pollen slides from the organic bands, and this and the few fern spores noted suggest that these samples may come from the lower horizons of a buried soil which has suffered erosion of its upper layers. Fern spores are frequently differentially preserved in lower soil horizons and may survive when all pollen has been lost through oxidation.

Economic evidence from the charred plant remains

There is a broad similarity between the plant macrofossils recovered from the fills of the ditches sampled from all periods. There seem to be two distinct groups of evidence which can be seen. The waterlogged plant remains, discussed above, are likely to give an indication of the local environment in which these ditches were placed, whereas the charred material, together with any bone, egg shell and artefactual material, such as the large quantities of pottery

	CONTEXT NO:	11 9	12 6	13 2	13 8	13 1	53	13 6	14 0	15 4	HABITAT
WATERLOGGED PLANT REMAINS											
CHARACEAE											
Chara spp	Stonewort					*	*				A
RANUNCULACEAE											
Ranunculus acris/repens/bulbosus	Meadow/ Creeping/ Bulbous Buttercup							*			DG
R. sardous Crantz.	Hairy Buttercup							*			CDW
Ranunculus subg. *Batrachium*(DC.)A.Gray	Water Crowfoot	*				**		*			APR
URTICACEAE											
Urtica dioica L.	Common Nettle		*								DGHWp
APIACEAE											
Conium maculatum L.	Hemlock				**			**			Bw
LEMNACEAE											
Lemna spp	Duckweed		*	**		*	*				AP
JUNCACEAE											
Juncus spp	Rush	**	*	**	**	*	**	**	**	**	GMRw
CYPERACEAE											
Eleocharis palustris/uniglumis	Spike-rush			*				*			MPw

HABITATS:
A: Aquatic
B: Bankside
C: Cultivated/Arable
D: Disturbed
E: Heath/Moor
F: Fens/Bogs
G: Grassland
H: Hedgerow
M: Marsh
P: Ponds/Ditches - stagnant/slow flowing water
R: Rivers/Streams
S: Scrub
W: Woodland

a: acidic
c: calcareous
d: dry soils
n: nitrogen rich soils.
o: open habitats
p: phosphate rich soils
s: coastal
w: wet/damp soils

Table 4 (continued) Waterlogged and charred plant macrofossils from Trench 2

recovered from the 12th-century and post-medieval ditches are more likely to represent material which had been placed in the ditches, presumably from a nearby settlement. Although no evidence of a settlement was found during the excavation, it is thought that this lies to the west of the Seabank ditches.

Period 1 - The 11th-Century Ditch (Context 119).

Charred grains of wheat, barley and oats, were recovered with a small range of arable weeds including stinking chamomile (Anthemis cotula), scentless mayweed (Tripleurospermum inodorum) and fat-hen (Chenopodium album). A quantity of bone and a few fragments of egg shell were also noted.

Period 2 - The 12th-Century Ditch. (Context 126 and 132).

Three samples were recovered, from the lower clay fill (context 126), from the upper ashy fill (context 132) and from the fill of a curving ditch at the southern end of the trench (context 136) dated to before the 13th century. Context 126 only produced a single charred barley grain and two unidentifiable grains.

Context 132 proved very rich and as well as a range of charred material also contained a quantity of fish and mammal bone, egg shell, and daub, the fragments of daub forming approximately 10% of the greater than 2mm residue. Grains of wheat, barley and oats were present with

rachis internodes and internode bases of barley. Much of the remaining grain was in very poor condition and it was not possible to identify it to species. Over 100 oat grains were found, as well as oat awns, but as no floret bases were preserved it was not possible to say if these represented wild or cultivated oats. Many of the chaff fragments as well as wheat/barley awns and grass culm nodes were preserved in a silicified form. This type of preservation requires high temperature oxidising conditions to burn out all the carbon and leave only the silica skeleton of remains such as these chaff elements (Robinson & Straker 1991). Such conditions are typical in a bonfire that has burnt down to a heap of glowing charcoal.

The presence of four seeds of Celtic bean (Vicia faba) may represent a further crop. The other species of vetch (Lathyrus/Vicia) recovered were in very poor condition with the absence of the hilum making identification difficult but these have been separated into groups based on size and suggests that four species may be represented. These are most likely to be species of grassy places such as grass vetchling (Lathyrus nissolia) and smooth tare (Vicia tetrasperma), identified in the 13th-century ditch.

A range of charred weeds, many typical of cultivated ground were present. Stinking chamomile was the most abundant, an annual weed typical of heavy clay soils. Other weeds often associated with arable land include scentless mayweed, cleavers (Galium aparine), common chickweed (Stellaria media), darnel (Lolium temulentum) orache (Atriplex spp), fat-hen, and fig-leaved goosefoot (Chenopodium ficifolium). A few species more typical of grassland such as ribwort plantain (Plantago lanceolata), yellow rattle (Rhinanthus minor) and buttercup (Ranunculus acris/repens/bulbosus) are present in small numbers.

Sea club-rush (Bolboschoenus maritimus) also recovered, is typical of wet muddy places in estuaries while spike-rush, (found in a charred and silicified form), is more typical of marsh, Eleocharis uniglumis preferring more open vegetation. Spike rush nuts were also recovered in a waterlogged form, together with duckweed and over 500 rush seeds. It seems likely that these species reflect the local marsh environment although the fact that charred and silicified examples were also present suggest that these rushes were gathered and utilised in some way.

Period 3 - The 13th-Century Ditch. (Context 138).

The primary fill of this ditch (context 138) produced mammal and fish bone, egg shell and a similar range of charred cereal and weed remains as found in Period 2. Wheat, barley and oat grain were recovered in small quantities with the arable weeds stinking chamomile, scentless mayweed, orache and knotgrass (Polygonum aviculare). Grassland species again include vetches of a similar size range to those recovered in Period 2 together with clover/medick (Trifolium/Medicago) and grasses (Poaceae indet).

Depth (cm)	133-134	132-133
Pollen counted	none	none
SPORES		
Filicales undifferentiated (ferns)	8	10
Polypodiaceae (polypody fern)	2	6
Trilete spore undifferentiated	4	3
Sphagnum	1	4
Crumpled grains	4	3
Corroded grains		2
Degraded grains		1
Traverses	12	12
Charcoal fragments >50 microns	occ	occ
Lycopodium (exotic marker)	17	47

Table 5 Pollen assessment from the Buried Soil Horizon

Period 4 - The 14th-Century Ditch (Context 131).

The primary fill (context 131) only produced sparse remains including animal bone, a limited assemblage of snails and two charred seeds of cleavers and clover/medick.

Period 5 - The Post-Medieval Ditch (Context 53).

The primary fill of this ditch (context 53) produced a distinctive pot group dated to the late 16th/early 17th century. It was also rich in other remains including mammal and fish bone, egg shell, small fragments of oyster and an assemblage of molluscs. Other finds recovered in the residue included pottery sherds, glass and daub.

A few charred grains of wheat and barley, together with a single Celtic bean are the only cultivated crops present. Arable weeds are less common than in the earlier ditch with only single examples of scentless mayweed, common chickweed and cleavers.

Many of the other weed species recovered are more typical of grassy places. As well as vetches they include clovers/medicks, lesser trefoil (Trifolium dubium), ribwort plantain, black medick (Medicago lupulina), selfheal (Prunella vulgaris), common knapweed (Centaurea nigra) and ox-eye daisy (Leucanthemum vulgare) as well as several species of grasses including crested dogs-tail (Cynosurus cristatus), meadow-grass and cats-tails (Poa spp and Phleum spp). This assemblage is similar to the Cynosurus cristatus-Centaurea nigra grassland (MG5, knapweed and crested dogtail meadow - Rodwell 1992), a typical hay meadow community. Today the Centaureo-Cynosuretum is a species-rich grassland of grazed hay-meadows on circum neutral soils in lowland Britain. Traditionally these meadows would have been grazed until

the end of April after which the animals would have been removed and the hay would have been allowed to develop before cutting in June when the stock was allowed to return and graze on the stubble. This hay meadow type community would not tolerate flooding with salt water and would require reasonable drainage conditions.

Conclusion.

The charred remains from all the ditches are likely to represent material deliberately placed there and reflect activities occurring in nearby settlements, or to a more limited extent, material washed in from elsewhere. All the ditches contain varying quantities of charred cereal remains including wheat, barley and/or oats, with associated chaff and weed seeds. The two richest deposits, from the ashy fill of the 12th-century ditch and the primary fill of the post-medieval ditch were also associated with other domestic waste such as animal and fish bone, egg shell, daub and broken pot fragments.

The 11th- and 12th-century ditches contained limited numbers of grains of wheat barley and oats, but little chaff to determine, for example, whether the oats were wild or cultivated. Celtic beans were present in the 12th-century ditch suggesting the use of this vegetable as part of the staple diet. No other food remains were recovered. Many of the weeds from these ditches are typical of arable habitats, stinking chamomile, an annual typical of heavy clay soils, being particularly abundant.

All of the ditches from the 12th century onwards contained a limited number of grassland species such as clovers and vetches but in the primary fill of the post-medieval ditch (context 53) were many other species typical of a hay meadow community. This assemblage may represent sweepings of hay originally intended for animal fodder and latterly used for tinder mixed together with remains left from crop processing. The silicified chaff remains recovered from the 12th-century deposit is certainly indicative of high temperature oxidising conditions such as found in the embers of a fire.

The cereals and the hay crop are unlikely to have been collected from the immediate vicinity, as other evidence suggests the site lay in an area of transition between upper saltmarsh and drier land but affected by brackish waters at periods of high tide. The hay meadow community recognised here would not tolerate flooding with salt water and would require reasonable drainage conditions. This type of grassland grows on land which is also suitable for arable farming so both activities may have been carried out in close proximity to each other and perhaps at no great distance from the Seabank site, but away from the influence of saline waters.

Little research has been carried out on the North Avon Severn Levels which is relevant to the medieval period. There is however documentary material on the parish of Henbury in which Seabank lies and it seems that by the early medieval period most of the Levels was under monastic control. In the early 14th century 45% of the Henbury Estate was winter sown wheat and 35% spring sown barley (Dyer 1980) and it has been suggested that parts of the extensive ridge and furrow that survives on the Levels is from this period. By the early post-medieval period however, pastoralism had become dominant (Dyer 1980, 113-195). In view of this, it is interesting that the material recovered from the post-medieval ditch (context 53) contained the remains of a typical hay meadow assemblage which is likely to have been used for stock rearing purposes.

DISCUSSION

The Organic Beds

The auger survey revealed a series of intercalated silts, clays and organic clays with two bands of peat. A thin upper band of peat (47), ranging from 30-100mm in thickness was revealed at heights between 4.32 and 4.04m AOD generally falling in height towards the coast (Fig.5). Plant macrofossil remains from the peat suggest a predominantly freshwater environment. Above and below this peat band were organic clay deposits of the Upper Wentlooge Formation (46 and 48) including a band containing a higher concentration of organic material (45) approximately 200mm above the peat.

The basal 1cm of the peat (47) was sampled in Trench 1 at 4.29m AOD and has been radio-carbon dated at the University of Waikato, New Zealand, with a conventional age result of 3730±40BP (Lab. code Wk 5119) and a calibrated two sigma age range (95% confidence intervals) of 2290-2030 BC. The calibration by Alex Bayliss of English Heritage, used the maximum intercept method and data of Pearson & Stuiver (1986).

In four of the auger cores taken to 6 metres (1,3,7,9) a further peat band varying in thickness from 10 to 20cm was recorded at levels between 1.47 to 1.83m OD. This is underlain by clays, silty clays and sandy clays. No dating or analysis was undertaken on this material.

It is useful to consider the sedimentary sequence shown in the auger survey and excavation of Trench 1 in the light of other deposits which have been radio-carbon dated in the North Avon Levels. Table 6 shows results from sites in this area ranging from Green Lane, near the Severn Tunnel, in the north to the Avonmouth M5 Bridge in the south. Figure 11 plots the calibrated 2 sigma age ranges BC against the OD heights from the sites listed in Table 6.

Due to problems caused by compaction it is not possible to correlate peat or other deposits purely on the basis of OD heights. As Figure 11 shows, although there is clearly an episode of peat formation between c3500 and 2000 cal BC, these deposits lie between 2.5 to 3.5m AOD and relate to a wide range of wetland environments. This problem is illustrated by the upper band of peat at Seabank (AV8), with a date c2000 cal BC, but which lies at a higher level (4.32-4.29m AOD).

The other sites shown include assessments carried out by Glamorgan Gwent Archaeological Trust in advance of work on the Second Severn Crossing (SB1 and EF1). Assessment of both peats and clays in a number of trial pits showed a

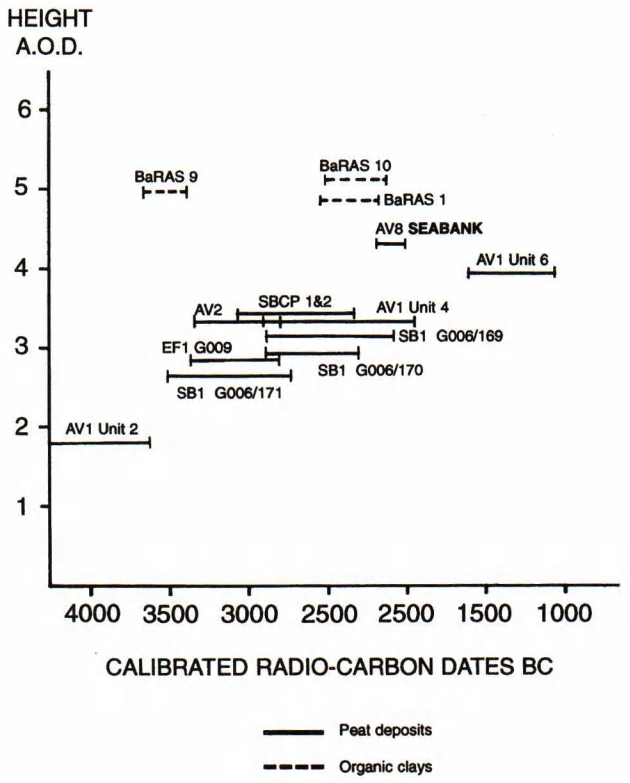

Fig.11 The organic beds - calibrated 2 sigma age ranges BC plotted against OD heights, referring to sites in Table 6

Site ID	Grid Ref	Site	OD (m)	uncal date BP	Lab Code	Cal date BC	Environment	Ref code
RW	ST5003 8565	Redwick	4.05-3.95	No dating			woody peat	3
Severn Beach								
SB1	ST 5440 8534	Green Lane G006/169	3.17	3940±100	GU 3116	2900-2100	saltmarsh/ brackish	3
SB1		G006/170	2.95	3960±60	GU 3117	2900-2300	reedswamp/ raised bog	3
SB1		G006/171	2.60	4400±110	Gu 3118	3500-2750	*Phragmites* peat	3
Severn Beach Caravan Park								
SBCP 1	ST 5395 8465	Severn Beach	3.38	4030±50	Wk 5807	2860-2450	Saltmarsh	6
SBCP 2			3.32	4330±50	Wk 5828	3090-2870	Saltmarsh	6
Avonmouth								
AV1	ST 5461 8334	ICI Unit 6	3.96	3110±100	St 3257	1650-1100	reedswamp	1,2
		ICI Unit 4	3.35	3905±100	St 3275	2900-2000	saltmarsh	1,2
		ICI Unit 2	1.73	5100±100	St 3276	4250-3650	saltmarsh/ reedswamp	1,2
AV8	ST 5335 8259	Seabank (monolith 1)	4.29	3730±40	Wk 5119	2290-2030	saltmarsh/ reedswamp	4
Elmtree Farm								
EF1	ST 5561 8211	G009/227	2.80	4420+90	Gu 3121	3370-2890	reedswamp/ pools	3
Avonmouth to Seabank (Wessex Water Pipeline)								
BARAS 1	ST 534 802	Wessex water pipeline	4.72	3930 –50	Wk 5804	2580-2290	Black organic horizon	5
BARAS 9	ST 534 805		4.94	4780±90	Wk 5805	3780-3360		5
BARAS 10	ST 534 804		5.04	3920±60	Wk 5806	2580-2200		5
Avonmouth								
AV2	ST 5234 7752	Avonmouth M5 Bridge	3.45	4305±100	St 3277	3350-2600	reedswamp/ alder carr	1

Reference Codes (for Table 6 and Fig.11)

1. Heyworth, A & Kidson, C 1982 *Sea-level changes in south-west England & Wales*. Proceedings of the Geologists Association 93 91-111
2. Gilbertson, D.D, Hawkins, A.B, Mills, C.M, Harkness D.D & Hunt, C.O. 1990 *The Late Devensian and Holocene of industrial Severnside and the vale of Gordano; stratigraphy, radiocarbon dating and palaeoecology*. Proceedings of the Ussher Society.
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4. Insole, P ???Seabank
5. Jones, J *Watching brief on the Wessex Water Effluent Pipeline between Avonmouth Sewage Works and Seabank Power Station, Severnside, Bristol*. Report for Bristol & Region Archaeological services
6. Jones, J. *Palaeoenvironmental assessment of deposits at Severn Beach Caravan Park*. In Seawall Caravan Park, Severn Beach, S. Glos. BARAS report 410/1997

Table 6 Results from palaeoenvironmental analysis and radio-carbon dating from organic deposits on the North Avon Severn Levels

range of environments from raised bog, reedswamp, disturbed open ground and brackish/saltmarsh communities. The Seabank peat band contained a typical freshwater plant macrofossil assemblage. A band of organic clay thought to represent an old land surface (context 140) was also found at Seabank. Preservation of environmental evidence from this deposit was poor but it was thought this may have represented the lower horizons of a buried soil which had suffered erosion of its upper layers. The organic clay horizon found along the route of the Wessex Water Pipeline (BARAS 1, 9, 10) may also represent a period of soil development but no analyses were undertaken to look at the degree of soil formation.

The only trial pit from the GGAT assessment which produced peats at a similar level to the Seabank peat was G007 at Redwick (ST50030 85658). Here a 10cm band of silty, highly humified peat with well preserved woody macroscopic remains was recorded between 4.05 and 3.95m OD which graded into organic clays above and below. Unfortunately, although samples were taken for pollen assessment, this was not undertaken at the time (Lawler et al 1992, 49) and radio-carbon samples were not obtained.

The lower band of peat recorded in the Seabank auger survey ranged in thickness from 10-20cm and lay between 1.47-1.83m OD. The closest correlation here, is the site at ICI Avonmouth (AV1 Unit 2) at a height of 1.73m OD which gave a radio-carbon date of 4250-3650 cal BC on a salt-marsh/reedswamp peat.

The sedimentary sequence and changing environmental conditions during the prehistoric period (approx 4000-2000 cal BC) are clearly fairly complex and not as yet fully understood. However radio-carbon dating and biostratigraphic analyses from sites such as Seabank and other excavations and evaluations will provide valuable data to contribute to the interpretation of past sequences of environmental and sedimentary change in the North Avon Levels.

The Buried Soil Horizon

Despite the limited information available it is possible to suggest a date for the buried soil horizon (140) in Trench 2 based on comparable deposits locally. Buried soil horizons are known from archaeological work throughout the North Avon Severn Levels and it is generally believed that these deposits date to the Iron Age or the Romano-British period. These horizons have been sealed by later silts of the Upper

Wentlooge formation as a result of the rise in sea level since the Iron Age. At Hallen Marsh the buried soil horizon into which the Iron-Age features were cut was revealed at a depth of 0.8m below the surface (Barnes et al. 1993). At Awkley Lane a test pit revealed a buried soil horizon 0.7m below the surface at 7.38m AOD. At Crook's Marsh the Romano-British remains were found 0.5m below the ground surface (Everton and Everton 1981) and at Northwick a horizon was found at a depth of 0.45m, approximately 6m AOD (Barnes and Newman forthcoming). Of all these sites Seabank is the nearest to the coast and would probably have received more alluvial deposits in the period since the Iron Age.

The buried soil horizons of the Iron Age and the Romano-British period in the area occur at variable depths, indicating that the landscape in these periods was more undulating. If this is the case the buried soil horizon in Trench 2 could date to either period, but its depth at 1.4m and residual Romano-British material found in contexts at a higher level suggest that (140) is more likely to have been deposited during the Iron Age.

The Ditches

The excavation revealed five successive ditches running N-S through the Seabank site, all of them turning west to drain into the Severn, at the northern end of Trench 2. They followed a similar alignment and were cut from a level close to the present ground surface.

Each ditch was aligned slightly to the east of its predecessor (Fig.6) suggesting that they were infilled from the west. The line followed by these ditches appears to have been maintained from the 11th to the 18th century. The line of the western branch of the E-W ditch has maintained into the 20th century and is shown on the OS plans of the 19th and 20th centuries. Clearly it formed a boundary between fields and the unusual nature of the two earliest cuts suggests that it may have had a greater importance in the 11th and 12th centuries (Periods 1 and 2).

The richest deposit recorded during the excavation was the secondary fill (132) of the 12th-century ditch. It produced a large quantity of ceramic and environmental information suggesting that by the 12th century the local environment was stable enough to allow domestic activity to take place on the saltmarsh.

Palaeoenvironmental analyses of the samples from the ditches has shown a very slight trend of a decrease in the salinity of the environment. The earliest ditch (Period 1) produced forams from a lower saltmarsh environment while the 14th-century ditch (Period 4) contained upper to middle saltmarsh indicators. However, all the ditches revealed evidence to suggest they were open to the sea and drained the surrounding land.

Indications are that the ditches revealed by the excavation have always been as close to the coast as they are now. They provide no evidence that there was a setback in the sea defences along this stretch of the North Avon Severn Levels. The ditches run parallel with the present sea defence, and the presence, from Period 4 in particular, of varieties of fish, such as small flatfish and young conger eels, which inhabit shallow inshore waters and rock pools, suggests that the ditch in the 14th century lay close to the coast. The large quantity of ceramic material recovered from the ditches, particularly from the 12th-century (Period 2) ditch, and the total absence of finds from the area immediately to the east suggests the nucleii of any settlement lay probably to the west, perhaps beneath the present Avonmouth to Severn Beach Road (A403).

ACKNOWLEDGEMENTS

We would like to thank the excavation team and volunteers for their efforts and the staff at British Gas, Seabank, for their forebearance, particularly David Jeckles, David Barr, and Martin Reagon. Thanks are also extended to the post-excavation team - Rod Burchill (pottery), Geraldine Barber (animal bone), Alison Locker (fish bone), Julie Jones and Vanessa Straker (palaeoenvironmental evidence), Nigel Cameron (diatoms), Mike Godwin (foraminifera), Heather Tinsley (pollen), Geodrive Ltd and Keith Faxon (auger survey) and Ruth Myers (help and encouragement).

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THE HORSEFAIR BURIAL GROUND REVISITED

by Rod Burchill

with contributions by Sophie Lamb and Geraldine Barber

INTRODUCTION

In the late summer of 1997 the Planning, Transport and Development Directorate of Bristol City Council undertook the construction of a new road layout and "gateway" to Bristol's Broadmead shopping centre to be known as St.James' Place. As part of this project the writer was commissioned by Bristol and Region Archaeological Servics to carry out archaeological monitoring of the groundworks.

The site, a former traffic island, centred on NGR ST 58960 73385, stood at around 9.5m aOD and sloped to the west and south. It was located southeast of the church of St.James, close to the west end of the Horsefair and immediately southwest of the site of a large group of burials which were recovered in 1954 (Mason 1957) during the construction of the department store formerly occupied by John Lewis Partnership (Fig.1). The geology is Triassic sandstones (British Geological Survey 1:163360).

The building works involved the creation of a new pedestrian area and associated architectural gateway to Broadmead and the realignment of the Union Street/Haymarket junction. Other less intrusive work

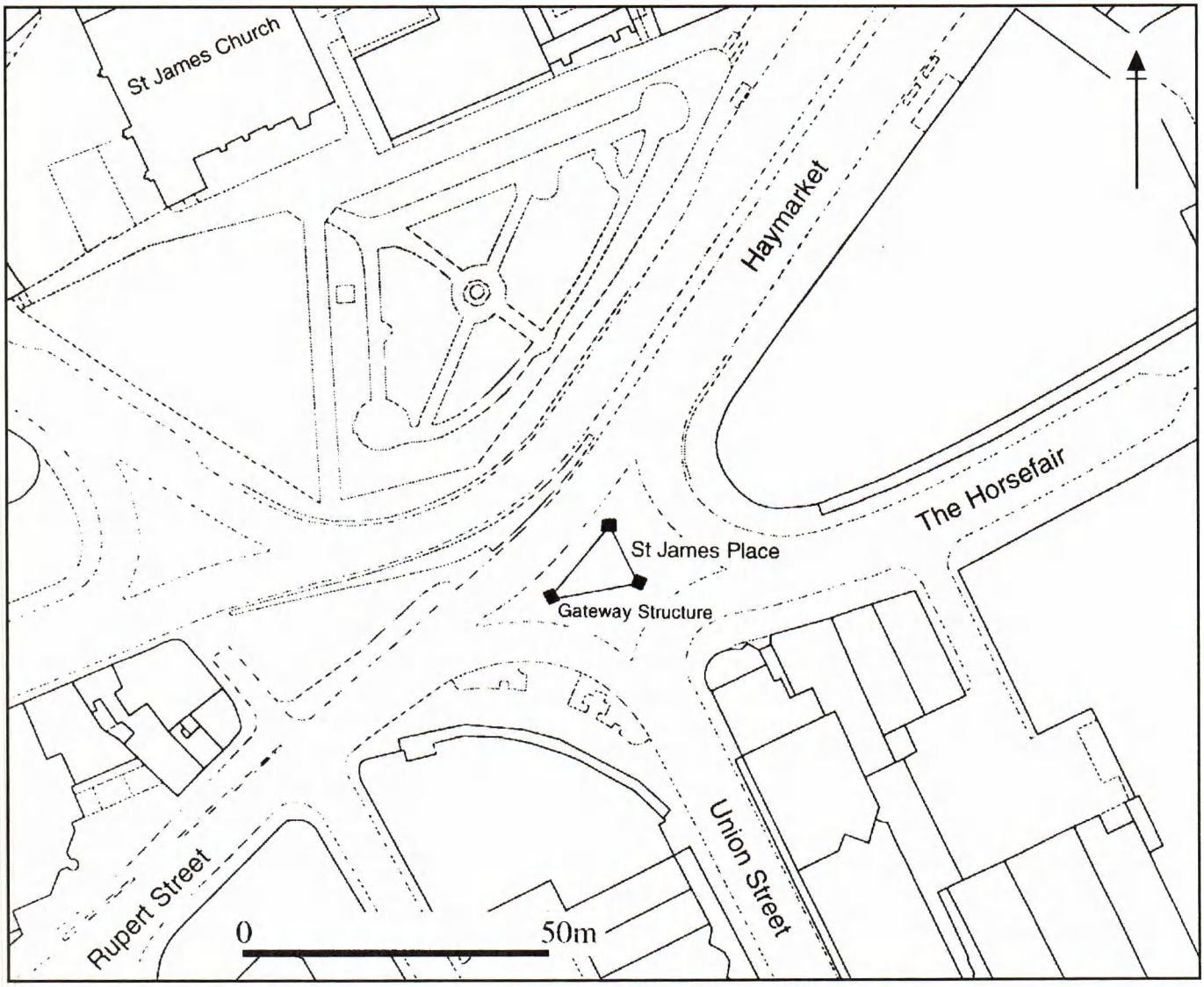

Fig.1 Site location plan (reproduced under Ordnance Survey Licence No. LA090554)

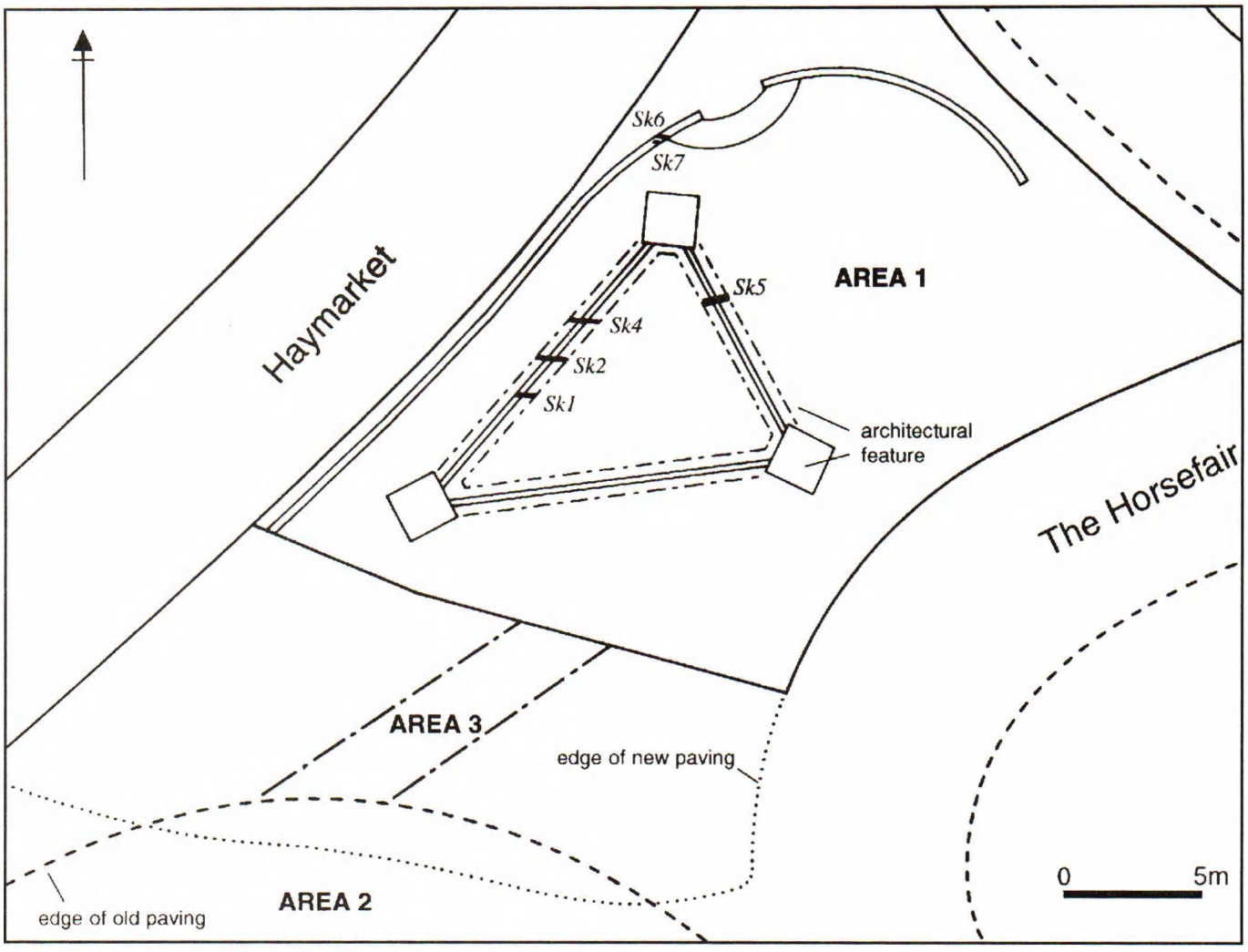

Fig.2 Trench location plan

included the removal of flower planters and the replacement of pavements.

The site was thought to lie within the cemetary of the parish of St.James. As part of a wider study of both the parochial burial ground and the priory of St.James, previously excavated by by the City Museums Archaeology Unit in 1988 and by BaRAS in 1994-5, the human remains recovered during this current project were examined by Sophie Lamb and Dr.Geraldine Barber formerly of the Bristol University Division of Medicine, and were radiocarbon dated at the University of Waikato, New Zealand.

The site archive has been deposited with Bristol City Museum and Art Gallery under the museums accession number (BRSMG) CMAG 1997/41.

HISTORICAL BACKGROUND

The priory of St.James was founded by Robert, Earl of Gloucester as a cell to the Benedictine Tewkesbury Abbey probably between 1125 and 1130 and was certainly completed by the time of Robert's death in 1147.

A burial ground for the priory had been created to the east of the priory church probably soon after its founding - head-niche burials excavated east of the church in 1994 can be shown on diagnostic and ceramic evidence to be not later than 1200AD (Jackson forthcoming).

It is not clear when the parochial burial ground to the south of the church was first used - the nave of the church had certainly acquired a parochial use by the first half of the 14th century and St.James' Fair is recorded as having been held in St.James' Churchyard from 1238AD. Untii around 1455, the burial ground also served the neighbouring parishes of St.John and St.Lawrence.

After the priory was dissolved in 1539 only the parochial buildings survived the redevelopment of the site by Henry Braine and his decendants (Bryant 1993, Jackson forthcoming). The graveyard, however, continued in use until the 19th century.

The extent of the burial ground is uncertain however; excavations by John Bryant in 1995 at the west front of the church probably found its northern boundary (Jackson forthcoming) and it is clear that the area now occupied by Bentall's department store also formed part of the graveyard. Mason (1957) thought that a lane, known as St.James' Churchyard, formed its eastern boundary. The present

works appear to have defined the southern boundary of the burial ground, however the location of its western boundary remains unclear

The burial ground continued as the site of the annual St.James' Fair until 1837 when it was abandoned. During its heyday the fair lasted 15 days and attracted traders, performers and visitors from all over Britain and continental Europe.

THE GROUNDWORKS

The principal groundworks occupied three areas: Area 1 - the traffic island south of the former John Lewis building, containing Morley's statue; Area 2 - the paved area on the south side of Union Street; Area 3 - the highway between Areas 1 and 2.

Area 1

Work in this area involved the relocation of a statue and base commemorating the MP and philanthropist Samuel Morley and the removal of a raised area of grass. Five trenches and three pits were then dug into the underlying deposits to take the foundations for a large ornamental structure and associated boundary walls (Fig.2).

Removal of the raised garden revealed a pre-existing tarmacadam road surface. This overlay a red sandy subsoil and decayed red sandstone brash with some modern disturbances.

Articulated human remains were exposed in Trenches 1, 2, and 4 on Fig.2. All the burials lay within the red sandy subsoil with the lowest burials resting on the sandstone bedrock. No evidence was detected for grave cuts or the remains of coffins or coffin furniture. Parts of five articulated skeletons were found in Trench 1 and Trench 2 and two in Trench 4, along with disarticulated bone from Trench 1 - see skeletal report below. No other archaeological features were observed.

Area 2

Groundwork in Area 2 involved the relaying of utility services. Removal of the public footpath and modern road surface revealed a number of backfilled cellars of unknown date but probably associated with the 19th-century development of the area. All the area exposed was very disturbed. No archaeological features were found.

Area 3

A 30m wide cut was excavated across the public highway linking the former traffic island with the footpath on the south side of Union Street. This revealed very disturbed ground with no surviving archaeological features.

THE HUMAN REMAINS

The skeletal material comprised seven articulated human skeletons with their heads to the west, with a minimum of five other individuals represented by disarticulated bone.

Parts of six articulated burials were removed after recording as they lay within the new foundation trenches, the seventh (Sk3) was left *in situ* as it lay lower than the constructors' formation level. Complete skeletons were recorded as they all either extended beyond the excavated area or had been truncated by later burials. The depth of the burials, some 0.5 to 0.7m below modern ground level were not indicitative of their original depth since it was obvious that the medieval land surface had been considerably reduced by 19th century and later development. No remains of coffins, coffin furniture or grave cuts were detected.

With the exception of Sk4 the bodies had been laid on their backs with their arms folded across their chests. Sk4 appeared to have been laid face down, possibly the result of careless burial.

Trench 1 (Plate 1)

Burial Sk1

Fragment of upper body only : remainder of skeleton beyond eastern section of trench. Base of skull at 8.6m aOD.

Burial Sk2

Lower part of skeleton only. Arms were crossed at groin. Base of skeleton at 8.81m aOD.

Burial Sk3

Burial 3 lay immediately below Sk2; only the lower half of

Plate 1 Skeletons 1, 2 and 4 (foreground)

the skeleton was visible, the remainder extended beyond the western limit of the trench. This burial was beneath the contractors' formation level and was not removed. Top of bones 8.595m aOD.

Burial Sk4 (Plate 2)
Incomplete. Position of bones suggests the body may have been interned face-down. Base of skeleton at 8.715m aOD.

A sample taken from Skeleton 4 was radiocarbon dated at the University of Waikato, Hamilton, New Zealand. This produced a conventional age result of 560 ± 40 BP (lab code Wk 6139). This date has been calibrated to a two sigma age range (95% confidence) which produced a date of 1290-1440 AD.

A group of disarticulated bone found at the southern end of Trench 1 may represent burials disturbed by the insertion of a late-19th-century drain.

Trench 2
Burial Sk5
Burial 5 consisted of a large group of disarticulated bone found together, possibly a single skeleton. It is possible that the burial was disturbed by the contractor.

Trench 4
Burial Sk6
Partially complete skeleton - feet beneath section and not recovered. Arms folded across body. Base of skeleton 9.2m aOD

Burial Sk7
Part of skull only. In the following pathological report this was considered with the disarticulated material.

ANALYSIS OF THE HUMAN BONE

by Sophie Lamb & Geraldine Barber

Introduction

Five articulated human skeletons and a relatively large amount (75 pieces) of disarticulated bone was examined. Generally the material was in a fair condition. Each articulated skeleton was studied separately. The material was identified, and where possible aged and sexed according to standardised anthropological methods (Brothwell 1981, Bass 1987). Visible skeletal pathology has been described and a probable diagnosis given when appropriate.

Results

Skeleton 1
Sk1 was only 5% complete, and the remains were in a fragmentary state. The condition of the bone however, was fair although a little light and papery. The skeleton consisted of skull and mandible fragments, three of the cervical vertebrae and the left humeral shaft. The skeleton was that of an adult male, although no age can be estimated as all of the lower molars were lost ant-mortem. The lower

Plate 2 Detail of Skeleton 4

incisors were lost post-mortem, only the lower canines and lower left pre-molars remained, both pre-molars being affected by carious cavities.

Skeleton 2
Sk2 was also in a fragmentary state, although the bone was in better condition and approximately 45% of the skeleton was present. The skull, majority of the upper body (with the exception of fragments of the upper limbs) and fragments of the pelvis, fibulae, hands and feet were missing. The skeleton was that of an adult male, no age could be assigned due to lack of data, and no pathology was noted.

Skeleton 4
Sk4 was 35% complete and the condition of the bone fair, although quite crumbly. The skeleton was that of an adult male. Most of the pelvis was present, as were both legs (with the exception of the fibulae) 30% of the spine, the majority of the right arm, the left humerus and radius and four metacarpals. The stature was estimated at 171cm using measurements of the tibia.

The articular surface of the right femoral head and the acetabulum of the pelvis had eburnation and pitting of the articular surface, with osteophytes at the articular margins. This is diagnostic of osteoarthritis of the hip (Rogers et al 1987), and is a common condition affecting around 2% of the older adult population (Klippel and Dieppe 1994).

Skeleton 5
Although only 15% of skeleton 5 was present the bone was in good condition. The skeleton was that of an adult male aged between 25-35. 75% of the mandible and 20% of the skull was present, along with both tibiae and fragments of humerus and fibula. The stature was estimated at 174cm using measurements of the tibia. Of the lower dentition the first right molar was lost ante-mortem and the second right pre-molar was missing post-mortem. All the remaining teeth showed evidence of enamel hypoplasia, which are lines of arrested growth of the enamel when the teeth are formed. This has been linked to periods of malnutrition during

childhood, and is a common finding in past populations (Brothwell 1959). Carious cavities were present on both of the lower incisors.

Evidence of osteoarthritis (eburnation and joint surface pitting) was present on the left patello-femoral joint of the knee. Both the left and right knees show evidence of bone death known as ostechondritis dessicans (OCD). The aetiology of OCD is not completely understood, though it is believed to be caused in some cases by trauma during youth (Klippel and Dieppe 1994). Osteoarthritis of the ankle was also noted on the left distal tibia. Osteoarthritis of the ankle is not as common as most other sites in the body, and is secondary to some other pathology, usually trauma.

It is unusual to see osteoarthritis in such a young individual, unless it is caused by trauma, which given the presence of knee OA and OCD, is the most likely aetiology in this case.

Skeleton 6

Sk6 was 65% present, although the bone was in a fragile and papery condition and very fragmented. The skeleton was that of a female aged 25-35 (probably under 30). The skull was in a very fragmentary state, most of the long bones and the spine, the pelvis, 6 ribs and fragments of the hands were present. All of the teeth showed signs of enamel hypoplasia (see skeleton 5). The lower right wisdom had not yet erupted, the upper left first and second pre-molars both had carious cavities, and there were possible abscesses on the upper left second pre-molar and the upper right second incisor. The stature was estimated at 163.5cm using measurement of the femur.

This skeleton had substantial pathological changes to its right proximal femur and the acetabulum of the hip. The femoral head was missing, leaving a smooth, flat stump. The articulating acetabulum of the hip was deformed, and osteophyte had grown over the original articular surface. A new secondary articular surface had been formed above it. There was no evidence for infection, nor fracture. This is the classic appearance of a dislocation hip, probably congenital in origin (Ortner and Putschar 1985).

The Disarticulated Material

The disarticulated material recovered was as follows:

Adult:

10 fragments of femurs (4 male, 4 female, 2 unidentified)
3 fragments of humerus (1 male, 2 female)
2 fragments of sacrum (1 female, 1 unidentified)
4 fragments of pelvis (3 female, 1 male)
3 fragments of scapula (2 female, 1 unidentified)
2 fragments of 1st rib (1 male, 1 unidentified)
5 fragments of vertebrae
4 fragments of mandible (1 adult male, 1 female aged 17-25, 2 unidentified aged 17- 25)
4 fragments of maxillae (2 aged 25-35, 1 aged 17-25, 1 unaged)
6 identifiable skull fragments (5 female, 1 male)
1 molar
4 pre-molars
5 incisors

Sub-adult:

2 fragments of femur.

From the disarticulated material a minimum of 5 individuals were represented, 4 adults and a child. No pathology was noted on any of the fragments.

Discussion and Conclusion

The watching brief at St.James' Place produced the remains of 5 articulated human skeletons (4 male and 1 female), and a minimum of 5 others (4 adults and 1 child) within the disarticulated material. Due to the small number of individuals few conclusions may be made about the group, but they will provide more information when compared with the data from the St.James' Priory skeletal remains (Loe et al forthcoming). Only two could be aged with any accuracy, and an estimated stature calculated for three individuals.

It is interesting to note the high frequency of pathology on these skeletons, although none of the pathologies noted were exceptionally rare.

CONCLUSION

The inhumations recovered during the archaeological monitoring at St.James' Place were clearly a continuation of a much larger (some 300) series of burials recovered during the construction of the former John Lewis building in 1954 (Mason 1957). These in turn were considered part of the parochial burial ground for the nearby church of St.James.

The 1954 burials were mostly undated; however, one skeleton was accompanied by two copper-alloy buckles thought to be 14th-century in date and used to attach boot-straps or hose suggesting that this body had been fully clothed at burial (Mason 1957). This date compares well with the 14th/early-15th century radiocarbon date for Sk4 from the present site which is thought to be typical for the group as a whole.

The human remains from the 1997 fieldwork showed similarities to those recovered in 1954 - all were shroud burials with no evidence for coffins being found. However, the horizontal distances between the burials of both groups, at least 1.2m, would suggest they were placed in individual rather than communal graves.

Although in the monastic graveyard east of the church (Jackson forthcoming) burials dating from after c.1200 were all placed in coffins, the lack of coffins in the parochial burial ground to the south was not unexpected as the use of coffins for the less wealthy did not become common until the late-17th century (Mason 1957).

The burials recovered from St.James' Place appear to represent the southern limit of the parochial burial ground during the later medieval period and it is unlikely that further burials of that date will be found in the direction of Union Street; however, to the west the boundary remains unclear.

ACKNOWLEDGEMENTS

Rod Burchill would like to acknowledge the assistance of Simon Cox during the watching brief, Dr Alan Hogg of the University of Waikato for his forebearance during communication by facsimile and Vanessa Straker of the Dept of Geography, Bristol University for undertaking the callibration of the date. Thanks must also go to the on-site staff of Stansell's for their co-operation during the monitoring process.

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ARCHAEOLOGICAL RECORDING AT ST.MICHAEL'S ON THE MOUNT WITHOUT, UPPER CHURCH LANE, BRISTOL, 1997.

by Jonathan G P Erskine

SUMMARY

The foundations of two buildings and a contemporary paved yard, dating from the late 19th century, had been preserved by demolition rubble. The western building probably had its origins in the 17th century (Millerd 1673), but the coal cellar appears to be a later addition. Larger earlier walls can be identified as the late-17th century boundary walls, possibly

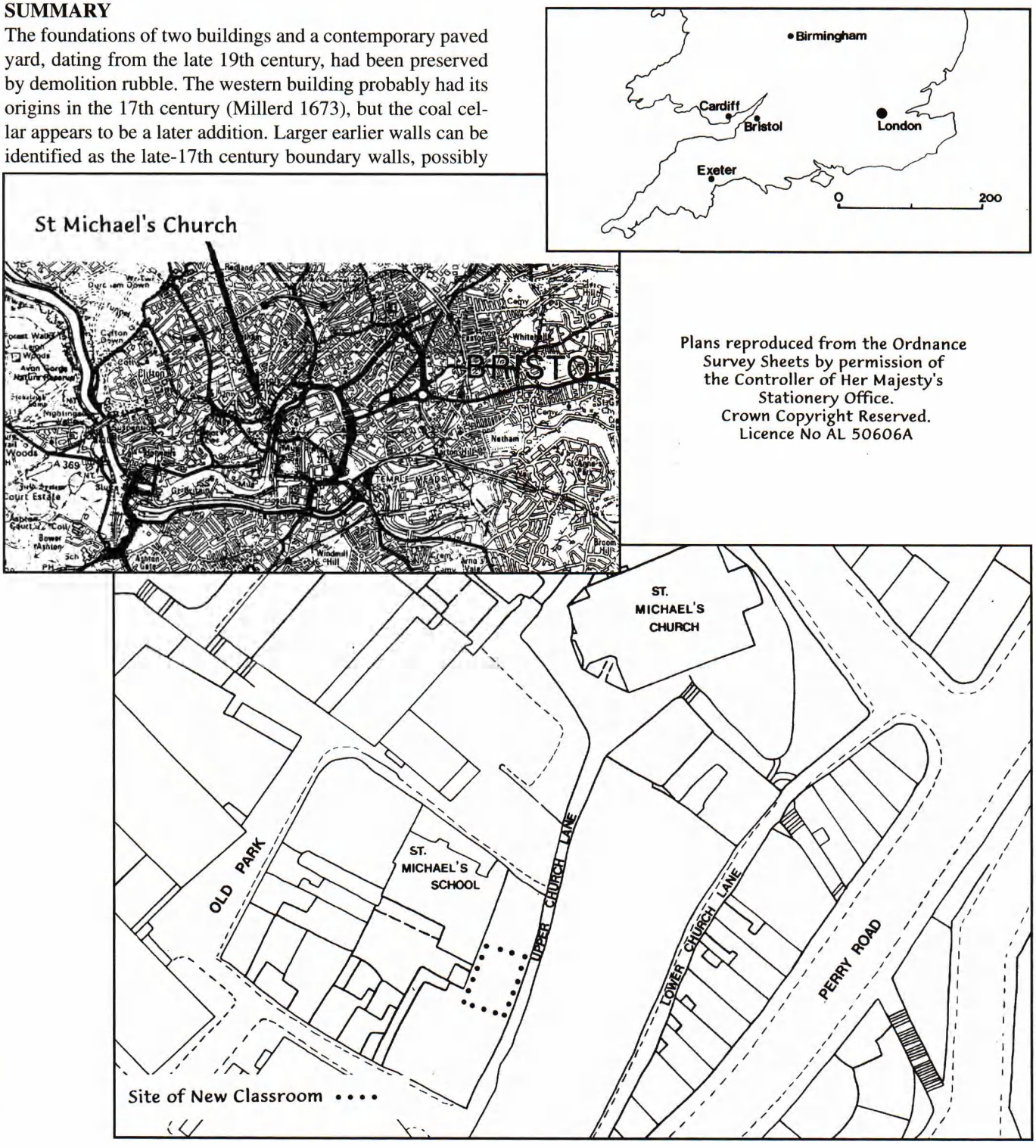

Fig.1 Site location plan

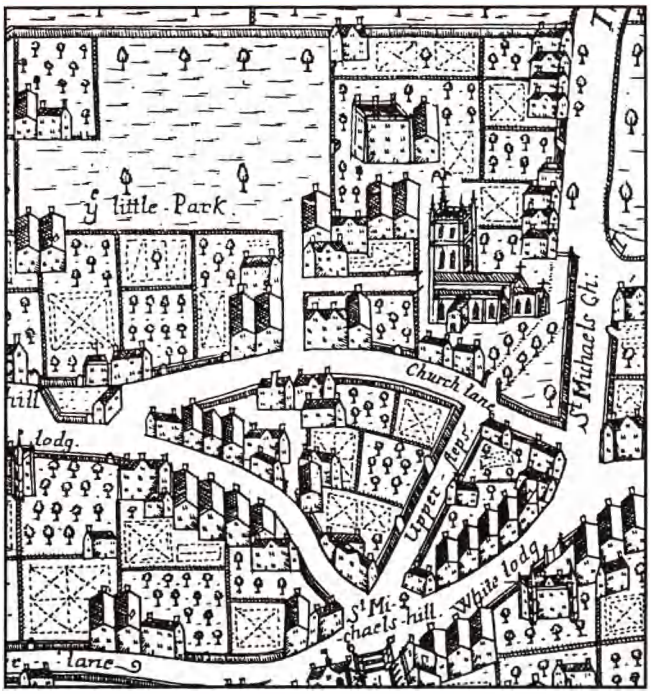

Fig.2 Millerd's map of 1673

used to terrace the formal garden and also to divide the building plots.

INTRODUCTION

A programme of archaeological recording during construction was carried out in July 1997 on the site of a new Reception Classroom at St Michael's Church of England Primary School (NGR ST 585 733), St Michael's Hill, Bristol (Fig.1).

The area is one of known post-medieval dwellings as evidenced, for example, from maps from the late-17th century (Millerd 1673) in the area of the Little Park (Fig.2).

Adjacent structures of similar date have been noted by Bryant (Williams 1993, 35) on the south side of Upper Church Lane. No previous desktop research had been carried out on the present site.

CARTOGRAPHIC STUDY

A brief study of the existing cartographic evidence concluded that the district of Little Park in the 16th century (Hoefnagel 1581) had been built on by a century later (Millerd 1673) and the basic layout of a large walled garden fronting on to Upper Church Lane survived until the beginning of the 19th century (Ashmead 1828). At about that same time, the plot was divided by a boundary wall and the rear of the site was occupied, probably after 1837, by the first of the school buildings. These were later replaced in 1895, as evidenced by a commemorative plaque still extant in the school yard. For the late Victorian layout of the site see Fig.3.

ARCHAEOLOGICAL EVIDENCE

The strip foundation excavations for the new classroom extended some 3.1m below the level of Upper Church Lane (44.47m aOD), some 4.8m below the level of the school garden. These foundations, and the coal cellar, are now filled with concrete.

Above a stiff red stony clay making up the undisturbed natural substratum (contexts 15, 20, 36 and 45), an original buried ground surface was sampled by machine in two places (contexts 35 and 44). These deposits contained bone shell and pottery sherds dated to the late-17th century.

Above this was a thick layer of red stony clay, similar to the natural, but containing bone, shell and pottery, dated in this instance to the 18th century (contexts 14, 19, 34 and 43). It is concluded that this layer represents an infill or terracing deposit.

In a separate location, some 2m to the north-east, the original ground surface and the infill layer had been cut away by the insertion of a possible wooden drain (context 21) and a cesspit containing context 18. Pottery in this cesspit which included several chamber pots, has been dated to the 18th century.

Higher layers of rubble and mortar deposits (contexts 16, 17, 25, 31-3, and 40-2) formed the basis of a partly-paved yard with the remains of a stone drain. To the west was the corner of a building with a coal cellar and to the north a sub-basement of a lean-to building attached to the school (Fig.3). The mortared stone wall (9) which formed the front of this cellar had been constructed in a trench cut through the infill clay layer (context 14) and had a mortary loam-filled construction trench behind it (context 22) containing pottery of late-17th-century date (Fig.4).

The boundary wall (10) perpendicular to Upper Church Lane had been butted on to the Upper Church Lane frontage wall (7) and was therefore later than the frontage. A fourth

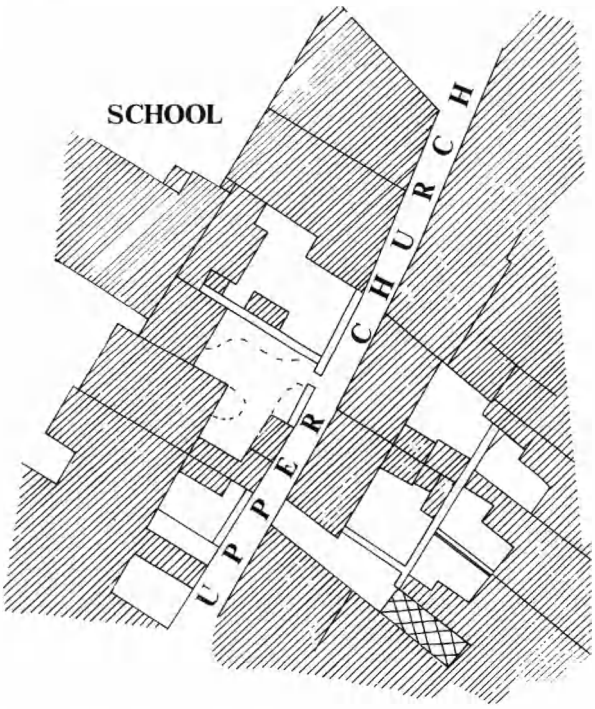

Fig.3 Buildings and garden from the 1882 Ordnance Survey plan, from the 1:500 Sheet BRO 97a

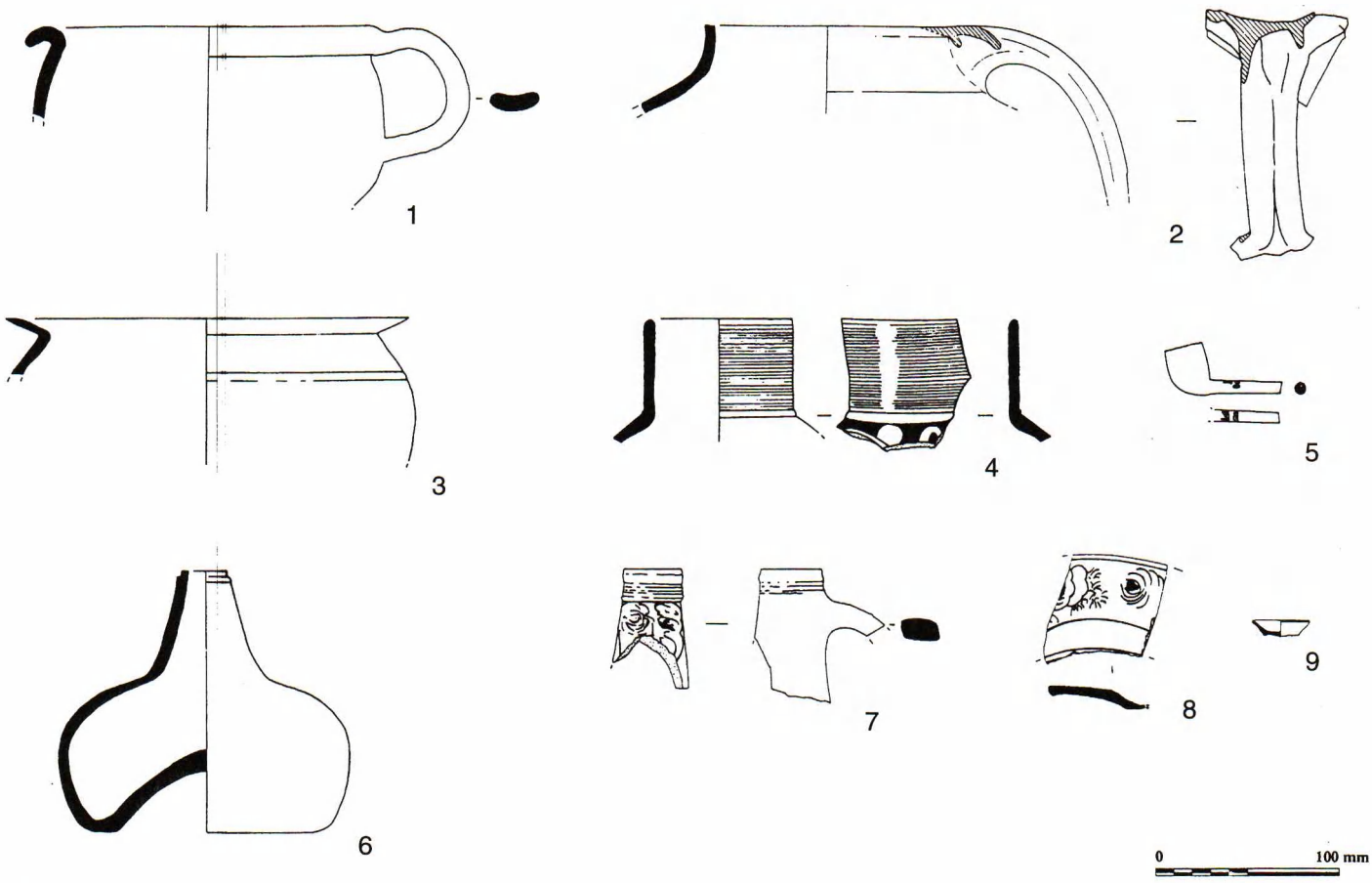

Fig.4 Finds illustrations

wall (8), at an angle of about 45 degrees to wall 10 was of similar construction, but could not be associated archaeologically with any other feature.

The rubble and mortar layers below the walls (context 6) of the western building did not provide any dating evidence, neither did the rubble and coal dust fill of the coal cellar.

At some time before 1956, as evidenced by the OS plan of that date, probably in the late 1940s, these buildings were demolished but the rubble was not removed (context 3). The rubble consisted of many machine-made common bricks stamped "AV" for Ashton Vale, a coal, iron and brick works functioning in south Bristol from the middle of the 19th century until the Depression. It was also found to contain a collection of moulded bottles, dated to the 1940s and 1950s. A small shed, covering a brick and concrete lathe base, was constructed in the rubble, as was a brick foul sewer junction box leading to the main sewer in Upper Church Lane. The shed, with its asbestos-sheet roof, was in turn demolished and the area laid to lawn and asphalt-surfaced carpark, with the addition of a small amount of scalpings and topsoil, where appropriate.

FINDS

The pottery assemblage (Fig.4) was assessed by Rod Burchill of Post-Excavation Services and was found to consist of a typical urban collection, dating mainly from the late- 17th century, although there were some earlier sherds, including Spanish Amphora and early Malvernian ware and South Midlands Cistercian ware from 1500 to 1700. The close proximity of St Michael's Church would account for these residual pieces. Animal bones, identified by Dr Geraldine Barber, were typical of food residues, with many bones bearing butchery marks. Sheep, cow, horse, dog, pig and hen were all represented together with many oyster shells.

The majority of the middle-20th-century beverage bottles were moulded, with well-known local names. Two galvanised iron paint kettles were also recovered.

BPT = Bristol Pottery Type devised by Bristol City Museum

No 1 Staffordshire chamberpot: early/mid-18th century, BPT 340. Context 18

No 2 North Devon pitcher: AD 1600-1800, BPT 112. Context 14

No 3 Bristol tin-glaze earthenware chamberpot: 1650-1780, BPT 99. Context 18

No 4 Westerwald drinking jug: mid 17th-18th century, BPT 95. Context 34

No 5 Clay tobacco pipe: 20th century. St Omer, Pas de

Calais, France. Context 3

No 6 Glass onion bottle: 17th century. Context 3

No 7 Bartmann jug: 17th and 18th century, BPT 277. Context 22

No 8 Bristol tin-glaze earthenware plate: 1650-1780, BPT 99. Context 18

No 9 Miniature English porcelain: no date. BPT 203. Context 3.

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FURTHER EVIDENCE OF A ROMANO-BRITISH AGRICULTURAL SETTLEMENT AT FILWOOD PARK, BRISTOL, 1998.

by Simon Cox

SUMMARY

An excavation at Filwood Park (NGR ST 59000 69000; Fig.1), 400m to the south east of Inns Court, revealed evidence of an enclosed Romano-British farmstead dating from the 2nd to the 4th century. A possible double ditch with a stone bank bounded an area of rubble and stone paving, with evidence of metal working, pottery kilns and a possible infant or foetus burial in a stone container. The closest parallel for this is Catsgore in Somerset (Leech 1982), where a number of such enclosed farmsteads lined the main thoroughfare to form a small village. Unfortunately the sprawl of housing estates to the north and west, and the landscaping of the playing fields and airfield to the east and south, have almost certainly removed any further remains of the farmstead.

THE SITE

The excavation area lay on the western side of Filwood Park, bounded to the north and west by housing at Inns Court, and to the south by Hengrove Way. At the time of the excavation the former playing fields to the east were being redeveloped as the South Bristol Business Park. The site lay at approximately 59m above Ordnance Datum. The underlying geology is lias limestone of the Jurassic period.

ARCHAEOLOGICAL BACKGROUND

Previous excavations at Inns Court and Filwood Park had revealed evidence of a large 2nd-4th century Romano-British farming settlement spreading south-east towards Whitchurch. Rescue excavations during landscaping at Filwood Park in 1982 (Williams 1983), c.100m north of the excavated area, revealed a 2nd to 4th century farmstead. This consisted of stone founded buildings and areas of cobbling, with evidence of metal working, bounded by a double ditched enclosure with a stone and earth bank which may have been surmounted by a wooden fence. A similar farmstead, enclosed by a large curving ditch, was revealed during excavations at Inns Court in 1997 (below pp78-9), again dated from the 2nd to 4th centuries with limited evidence of earlier Iron Age and 1st century activity (Jackson pers comm). A number of Romano-British finds and an enclosure to the south-east at Bamfield point to a large farming settlement, possibly stretching along an unknown road aligned on a north-west/south-east axis.

INTRODUCTION AND ACKNOWLEDGEMENTS

The initial excavation was carried out over a two week period in late March and early April 1998 in advance of the

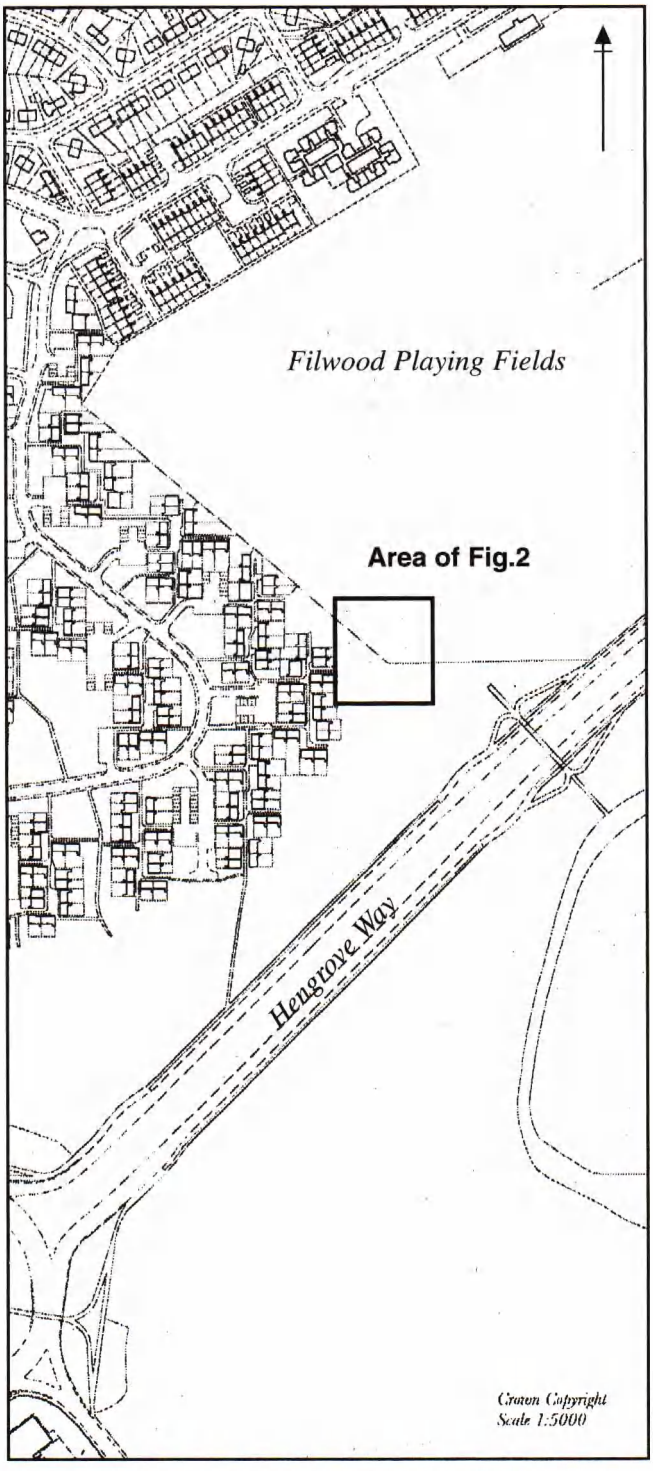

Fig.1 Site location plan (reproduced under Ordnance Survey Licence No. LA090554)

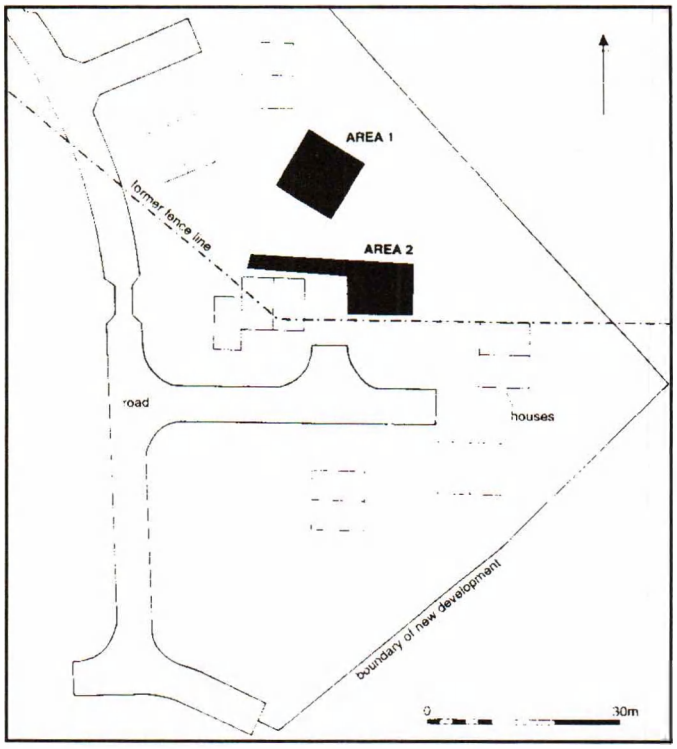

Fig.2 Trench location plan

development of affordable housing on a strip of land along the western edge of Filwood Park. The aim of the excavation was to define the extent and function of a ditch containing late 3rd/early 4th-century pottery located during an evaluation carried out by BaRAS in early 1997. That evaluation, together with other recent trial trenching over Filwood Park had suggested that very little evidence of Romano-British activity had survived the 1982 landscaping and levelling works. However, having stripped the overburden it quickly became clear that an area in the south-west corner of the playing fields outside the area of the evaluation had survived destruction. Numerous features were revealed and further funding was made available by developers Lovell Homes for the excavation of a further area to the south of the main excavation, the location of which was determined by the site of proposed building plots rather than on a purely archaeological basis.

Thanks are extended to Richard Crew, Geoff Thomas-Williams and Tony Brown of Lovell Homes for their generous assistance during the excavation. Thanks are also owed to the site staff, John Turner, Jayne Pilkington, David Etheridge, Andrea Cox and Patrick Watson who worked tirelessly despite the often appalling weather conditions, and to volunteers Duncan Wright, Martin Parsons and Tina Cox.

The excavation archive will be stored at Bristol City Museum under Accession Number CMAG 1997.0012.

METHODOLOGY

A 10m² area (Area 1) was stripped using a 180 degree rubber wheeled mechanical excavator. Approximately 600mm of overburden was removed, much of which comprised redeposited natural clay resulting from the 1982 landscaping works. In the subsequent excavation a smaller area (Area 2) to the south was stripped by a 360 degree tracked excavator, and part of the trench extended westwards toward the adjacent building plot. The trenches were then cleaned by hand, photographed and recorded in plan at 1:20 and section at 1:10, all features being levelled relative to an Ordnance Survey Bench Mark. The excavation areas were located accurately on a 1:500 scale plan (Fig.2).

SUMMARY OF SITE PHASING

The site was broken down into three main periods mainly on the basis of the pottery evidence, Period I being sub-divided further on the stratigraphical evidence. Whilst the Romano-British deposits of Period I were clearly stratified it was only possible to divide this into two phases. Post-medieval disturbance from Periods II-III, combined with a lack of time for more detailed excavation, made attempted further sub-division of Period I dangerous although it seemed highly possible that an earlier phase may have existed in unexcavated areas.

The pottery fell mainly within a date range of late 2nd to mid-4th century, and was generally dominated by mostly local grey wares and vessels in the south-east Dorset Black Burnished Ware tradition, with a significant lack of fine table wares as at Inns Court. Fragments of box flue tile suggested the possibility of a higher status building in the vicinity.

Summary of Chronology:

Period I:	Romano-British;
	Phase 1 - late 2nd/early 3rd centuries
	Phase 2 - late 3rd/early 4th centuries
Period II:	Post-medieval (mainly later than 18th century)
Period III:	Modern (mainly relating to 1982 landscaping)

STRUCTURAL EVIDENCE

Period I - Romano-British

Phase 1 (late 2nd/early 3rd centuries)

The Phase 1 occupation in Area 1 (Figs.3 & 4) consisted of a number of stone features and ditches which had been disturbed by later activity from Periods 2 and 3. The level of disturbance from these periods makes interpretation of these features extremely tentative, although it seems probable that most of the main rubble spread (102) (Plate 1) relates to the north-west corner of a stone building with a roof of pennant sandstone tiles. To the west of this building lay a linear stone feature (132) 5m long and up to 1m wide, running parallel with the edge of (102). This feature lay between two parallel ditches (147) and (146), delineating the western boundary of the farmstead. The ditches became very shallow and ill-defined in the area of features (102) and (132), with the Phase 2 fills (103) and (101) spread over the stonework.

Two stone features (134) and (145) lay to the west of (132). Feature (145), a circular spread of large flat lias slabs, appeared at the base of fill (103) which was very shallow at

Plate 1 Area 1, Period I, Phase 1. Rubble spread (102), looking north

Fig.3 Plan of Area 1, Period I, Phase 1

Plate 2 Stone container (SF5), looking east

this point. Stratigraphically this appeared to be contemporary with feature (132), suggesting that (103), and probably (101) were a Phase 2 ploughsoil. Feature (134), a line of flat lias slabs running north-east/south-west, was cut by a Phase 2 land drain (133).This may have been the bottom course of a low wall, perhaps supporting part of a small timber structure. Feature (133) had also truncated a deposit of dark-grey clay with charcoal flecking (120) to the north of (134). This contained late 2nd/early 3rd-century pottery, suggesting an association with Phase 1, although it had been truncated by Period 2 ploughing and the form of the feature was not discernable. To the north-west of this no Period 1 features were apparent.

To the north, ditch (146) was well-defined by a broad U-shaped cut up to 260mm deep, oriented north/south. The east side had been cut halfway up by a shallow, oval feature (148) containing a fill (124) of metal working slag, sealed by fill (103). To the east lay another north/south ditch (112), again a broad U-shape, which terminated short of features (102) and (132). Another narrow V-shaped ditch (131) lay between (146) and (112), again on a north/south axis. Its fill (119) contained mid-3rd/mid-4th-century pottery, suggesting that (131) was roughly contemporary with the other Phase 1 ditches, but was heavily contaminated with Period 2 finds and cannot therefore be ascribed to Phase 1 with any great degree of certainty.

To the east of rubble spread (102) lay a more consistent area of lias paving slabs (141), again suggesting the interior of a large building spreading under the trench edges to the east. This had been truncated by a cut for the Period 3 land drain (140), removing its relationship with (102) with which it was certainly contemporary. Interestingly, the backfill (123) of (140) contained 2nd-century pottery and a quern stone (SF9), perhaps suggesting an origin slightly earlier than the late 2nd century for the building (based on the dangerous assumption that the cut was backfilled with the material taken from it).

A section through features (102) and (132) (Fig.4) along the south-eastern trench edge revealed that these were extremely shallow features overlying the natural yellow/brown lias clay. Feature (102) appeared to be nothing more than a rubble spread in this part of the trench, which was confirmed by the position of a small carved stone container (SF5)(Plate 2) with a handhold on one corner, possibly for a foetus burial, lying above the rubble. Whilst the coffin-like form of the container remained intact, the bottom had fallen through and no trace of skeletal remains survived. This confirmed the view that the rubble spread and overlying deposits (101) and (103) were the result of either Phase 2 or later ploughing. This had resulted in the container, which originally may have contained a burial placed within the wall of the building, coming to rest on the surface of the heavily ploughed remnants (102) of the building.

Most of the archaeology in Area 2 (Figs.6 & 7, Plate 3) consisted of cut features and ephemeral occupation layers, all heavily disturbed by Period II-III field drains and trackways. No continuation of the stone features or ditches of Area 1 was evident, and most of the pottery was contemporary with the second phase of Period I in Area 1. With little in the way of stratigraphical evidence it was impossible to ascribe any of the cut features, apart perhaps from (410), accurately to Phase 1. The majority of cut features are therefore placed within Phase 2.

Cut (410) was sub-circular in plan with a V-shaped profile. Revealed in a small sondage to a diameter of 800mm it had steeply shelving sides and was at least 350mm deep. This was interpreted as either a waste pit or the terminus of a ditch extending southwards. The fill (368) of dark-grey/brown clay with occasional charcoal flecks was the only context to be securely dated to the early third century.

Phase 2 (late 3rd/early 4th centuries)

Phase 2 in Area 1 (Figs.4 & 5) consisted primarily of deposits sealing the stone structures and filling the ditches belonging to Phase 1. These tended to be darkish-grey clays oriented on north/south axes, and were generally cut by Period II plough marks on the same alignment.

Deposits (101) and (103) sealed much of the stonework over the south of the excavation area. Deposit (101) was a friable mid-grey brown silty clay up to 160mm deep and covering an area of at least 3m by 6m. The western boundary of (101) merged with deposit (103). Deposit (101) filled a shallow north/south depression along the western edge between (102) and (132), which may have been a truncated Phase 1 ditch. Deposit (103), a 260mm deep, mottled, light-grey/brown silty clay with frequent flecks of iron staining, filled the Phase 1 ditch (146). To the south-east this had spread over feature (132), probably as a result of later ploughing either in Phase 2 or Period II, which would explain the merging boundary with (101).

Cut into the side of ditch (146) was an oval feature (148) 290mm in diameter and 40mm deep. This was filled (124) by a friable grey/black charcoal and slag deposit which was sealed by deposit (103). This was the only stratigraphical

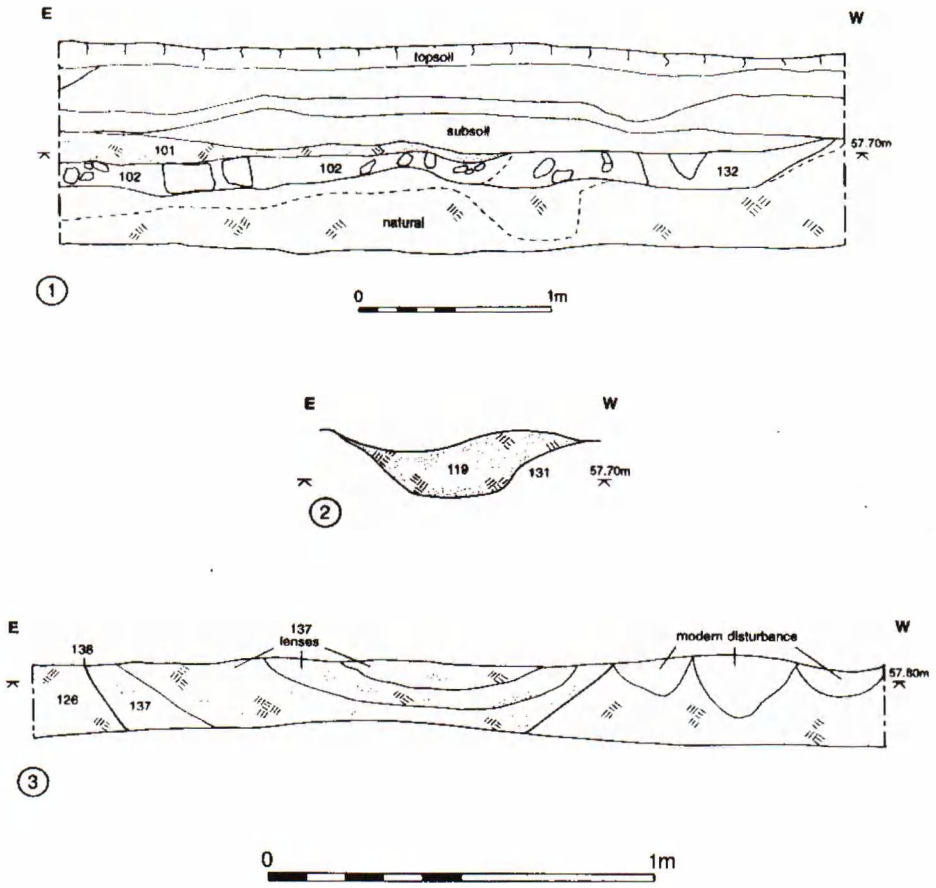

Fig.4 Area 1 section drawings, Period I

evidence of activity between Phase 1 and 2, although the pottery evidence suggested it was closer to Phase 2.

To the east Phase 1 stonework (141) was sealed by a friable light-yellow/brown clay deposit with occasional charcoal flecks (125). This was 50mm to 100mm in depth and produced pottery of late 3rd to early 4th century date. Its relationship with (126) to the west was truncated by a Period III land drain. Deposit (126), a friable brown/black silty clay, also contained late 3rd/early 4th century pottery and was again sealing Phase 1 stonework (143). Both deposits contained a number of small finds including quern stones and copper alloy pins.

A curving, cut feature (138) was partially revealed in a sondage to the north of (143) with a fill of compact dark grey/brown silty clay (137) containing small fragments of lias limestone and iron staining. This feature was not fully excavated, although it appeared contemporary with Phase 2.

A linear stone feature (133) may have belonged to Phase 2, and was sealed by a deposit (104) of mottled grey/brown clay containing 3rd/4th-century pottery. Oriented north/south, feature (133) was constructed from roughly hewn boulders of lias limestone, and appeared to be a field drain. It was 600mm wide and at least 5.5m in length, and cut Phase 1 feature (134), although it appeared to have been truncated by a Period II stone feature (110) to the south, where post-medieval pottery was recovered. The dates of feature (133) and deposit (104) therefore remain dubious, although it is postulated that both belong to Phase 2.

The fill (111) of Phase 1 ditch (112), a dark-grey/brown silty clay up to 300mm deep, contained late 3rd/early 4th-century pottery, matching the finds from the same ditch in the original evaluation trench. The fill (119) of Phase 1 ditch (131), a compact dark-grey/brown silty clay with iron staining and charcoal fragments again contained 3rd/4th-century pottery, although it was also heavily contaminated with modern finds and therefore cannot be placed into Phase 2 with certainty.

In Area 2 the main features of Phase 2 (Figs.6 & 7, Plate 3) were four large ditches or pits, which were not always particularly well defined. A large irregular ditch or pit was revealed running roughly east/west along the northern trench edge, apparently stopping at the western end. The ditch was sectioned in three places, with the cuts (372), (387), (391) and fills (373), (388), (390) assigned different context numbers in each section. A feature (337) half-sectioned on the western edge of the trench may have been part of this ditch or pit, beyond which point its limits could not be clearly defined. Cut (372) had been largely truncated by a cut for the Period II field drain (361/374). It was at least 150mm deep with gradually sloping concave sides. The fill (373) was a pliable grey/brown silty clay with frequent iron staining, and contained late 3rd/4th-century pottery. To the

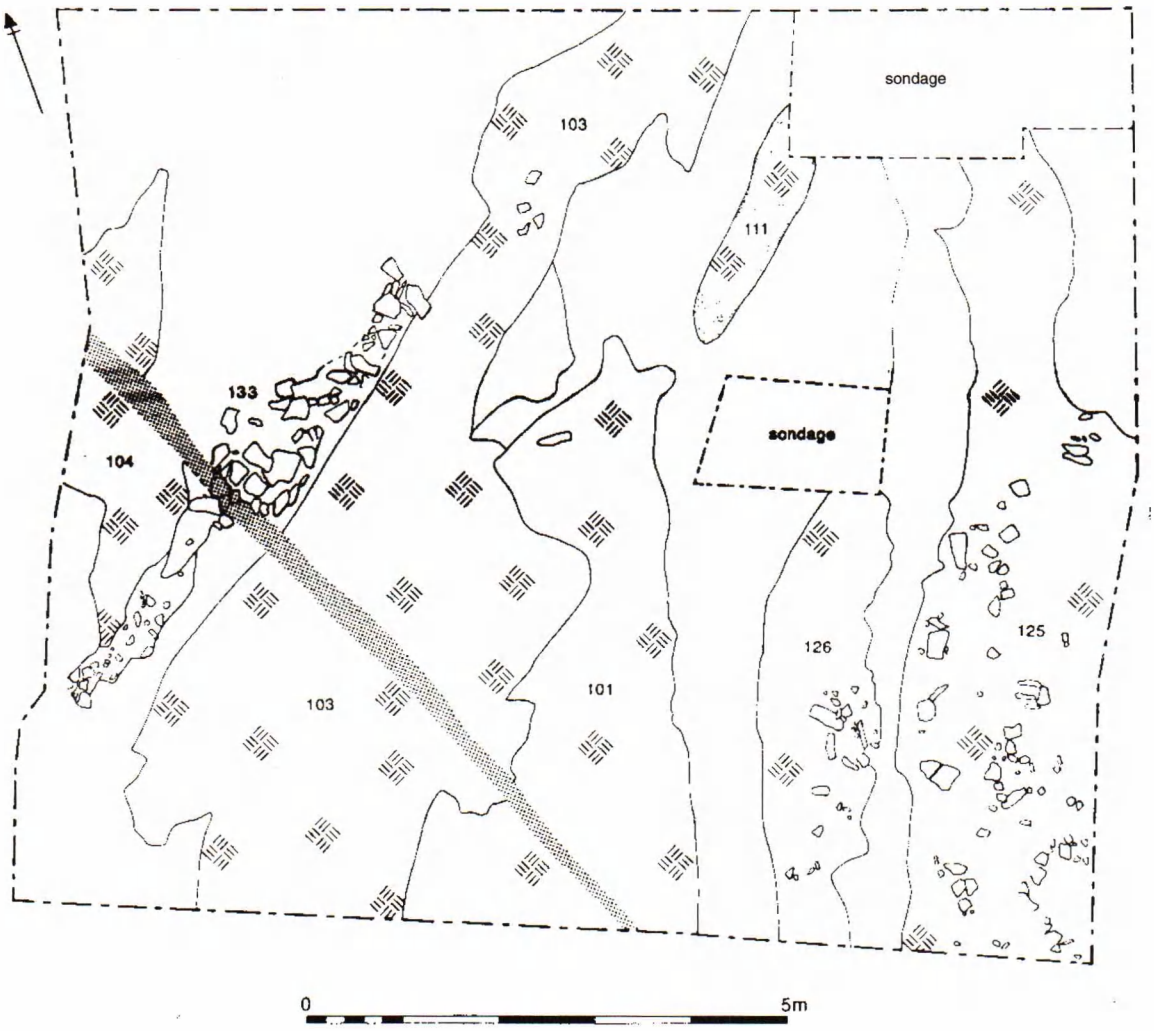

Fig.5 Plan of Area 1, Period I, Phase 2

east the cut (387) turned slightly to the north-east before returning sharply to the south. Here it was 1.3m wide and up to 100mm deep, with a sharp break of slope at the top and gently sloping sides. The base of the cut was rounded and the overall profile was a broad U-shape. Again the fill was a pliable mottled grey-brown clay with iron staining and occasional charcoal flecks. To the west the cut (391) was up to 220mm deep and 1.1m wide, although the northern edge lay beneath the trench section. The sides were gently sloping, with the base lying beneath the northern trench edge. The fill was the same grey/brown silty clay (390) with frequent iron staining, occasional charcoal flecks and some burnt clay. Cut (337) had a fill of mottled light-grey/brown silty clay (338).

Another possible pit (320) ran east/west across the eastern end of the trench. This had been truncated by the same Period II field drain (361/374) that was cutting (372). The cut appeared to be a broad U-shape with gently sloping sides, with the bottom cut away by the base of the field drain (312/3). The fill (318/9) was a mid-yellow/grey silty clay with occasional charcoal flecks and some small angular fragments of limestone. This corresponds with fill (357) which contained mid-late 3rd-century pottery. The northern edge of (320) appeared in section to have been truncated by a cut (317) for a possible post-hole. The fill (316) was a mid-dark grey, silty clay. This was sealed by an occupation layer (306) up to 150mm deep, containing 3rd century-pottery, which was similar to fill (318) of pit (320). It is

Plate 3 Area 2, Period I, Phase 2 features, looking south

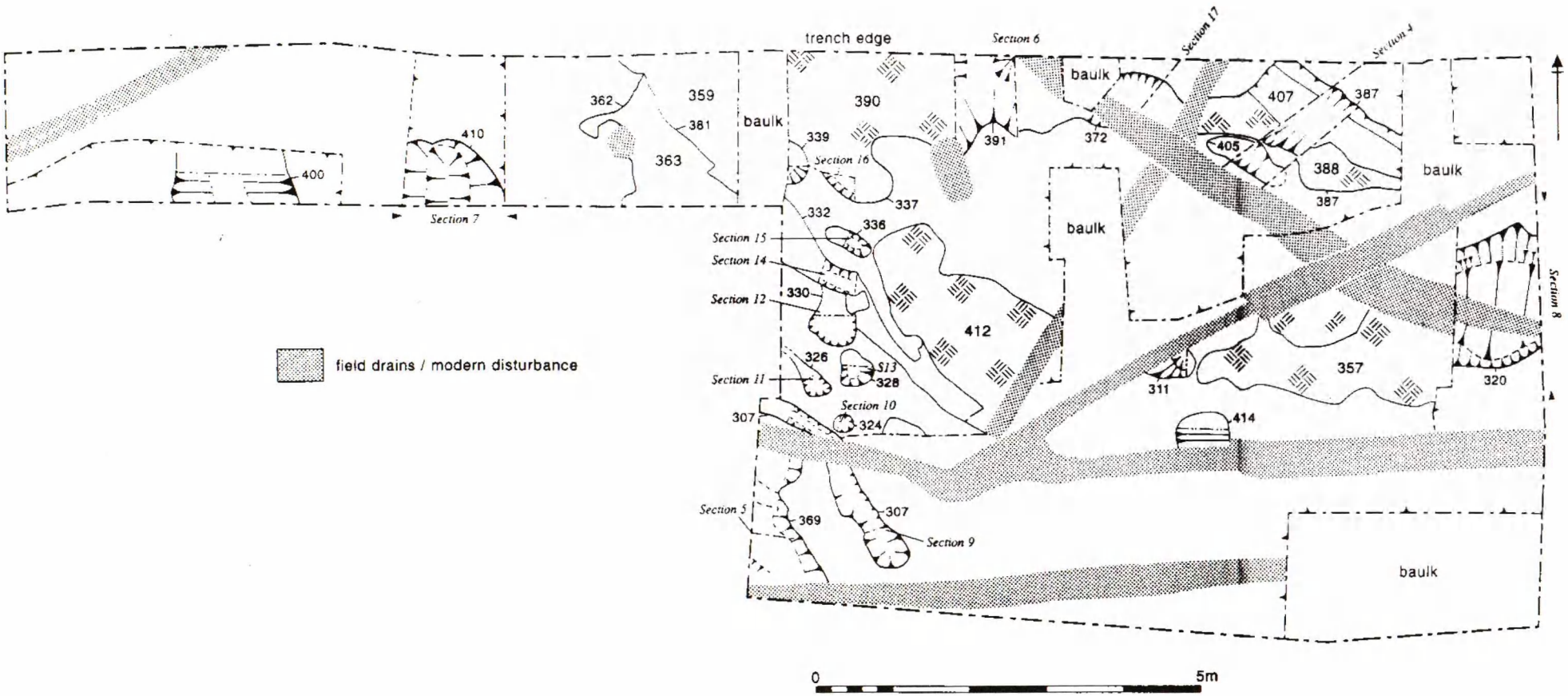

Fig.6 Plan of Area 2, Period I, Phase 2 features

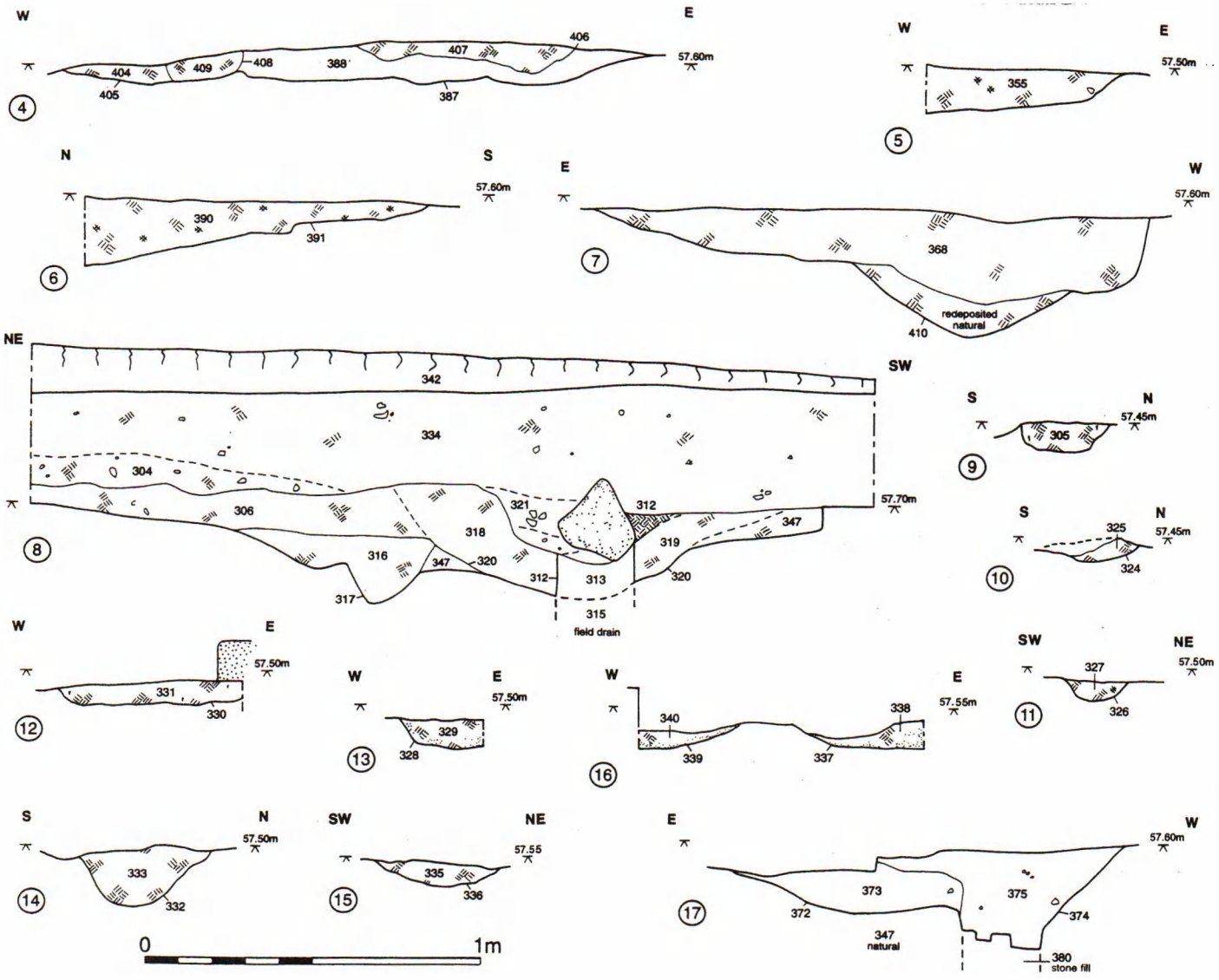

Fig.7 Area 2 section drawings

possible therefore that cut (317) was actually contemporary with (320).

To the west cuts (369) and (400) may have been part of one ditch running roughly north/south, matching the alignment of features in Area 1, although the projected line of the ditch would just miss Area 1 to the west. Cut (369) was revealed running under the eastern trench edge in the southwest corner of the main area as a shallow flat-bottomed cut with steeply shelving sides. The cut became very irregular at the northern end and was filled by a compact dark-green/grey clay (355) with frequent iron staining with occasional lime and limestone fragments. The finds were dated to the mid-3rd/4th century, and the overlying occupation layer (322) of pliable dark-grey silty clay contained finds of similar date. Cut (400) lay directly to the north in the western leg of the excavation area. It was a linear, broad U-shaped cut with gently sloping sides and a flat bottom. The fill (399) was a compact, dark- brown clay and again the finds were dated to the mid-3rd-4th century. The western edge of (400) was cut through an occupation layer (411) of mid-green-brown clay which contained 2nd-3rd-century pottery. To the east of (400) lay a sub-rectangular pit (396) which had gently sloping sides and a rounded base, and was filled (386) with a compact dark-grey-brown silty clay with occasional flecks of lime and charcoal that contained early to mid-3rd-century pottery.

Another possible ditch (362) running roughly south-west/north-east was only partially excavated, and the finds from the fill (363) were dated to the 19th century. This may have been a result of contamination from a later feature, such as the Period II cut feature (382), or the overlying trackway (353). Finds from context (358) which may be the same as (363) were dated mid-3rd-4th century.

The remainder of the Phase 2 features consisted mainly

of ephemeral postholes, gulleys and occasional occupation layers. A gully (307) to the east of ditch (369) consisted of a narrow linear cut running north-south with a rounded end to the south. The northern end had been truncated by a Period III field drain. The fill (305) was a compact green/brown silty clay with occasional limestone and charcoal fragments. This produced 19th-century finds, which may have been the result of contamination, although equally this feature may belong to Period II.

To the east of this, again cut by the field drain, lay a shallow semi-circular posthole (414). The fill (314) was a pliable grey/brown silty clay containing late 3rd/early 4th-century pottery. To the north of this a rectilinear feature (311) had been truncated by a Period III field drain to the north. It was oriented north/south, turning east/west, and was filled by a pliable light-grey silty clay with frequent iron staining (310).

To the immediate west of cut (387) lay an elliptical-shaped cut feature (405). This appeared to be a shallow U-shaped feature, although the edge had been truncated by a modern disturbance (408) to the east. The fill (404) was a pliable grey/brown clay with frequent iron staining and may have been part of fill (388), although cut (408) had removed the relationship.

Along the western edge of the main area a sondage revealed a number of ephemeral cut features (Fig.6). Cut (339) appeared to be a semi-circular posthole with a fill (340) of mottled light grey/brown silty clay. Cut (336) was an elliptical-shaped gully with rounded terminals. The cut was a broad U-shape with gently sloping concave sides and a rounded base. The fill (335) was a mottled grey/brown clay with frequent iron staining. To the west of this lay a narrow gully (332), linear in plan, oriented north/south and which may have been part of cut (362). It was U-shaped in profile with steep sides and a rounded base. The fill (333/413) was again a mottled grey/brown clay with frequent iron staining. This had cut another possible posthole (330) to the west. This was sub-circular in plan, with the fill (331) a mottled grey/brown clay with frequent iron staining.

South of (330) lay a circular posthole (328), U-shaped in profile with steep sides and a flat base. The fill (329) was a light-grey/brown silty clay with frequent iron staining. To the west of this a narrow gully (326) ran south/north beneath

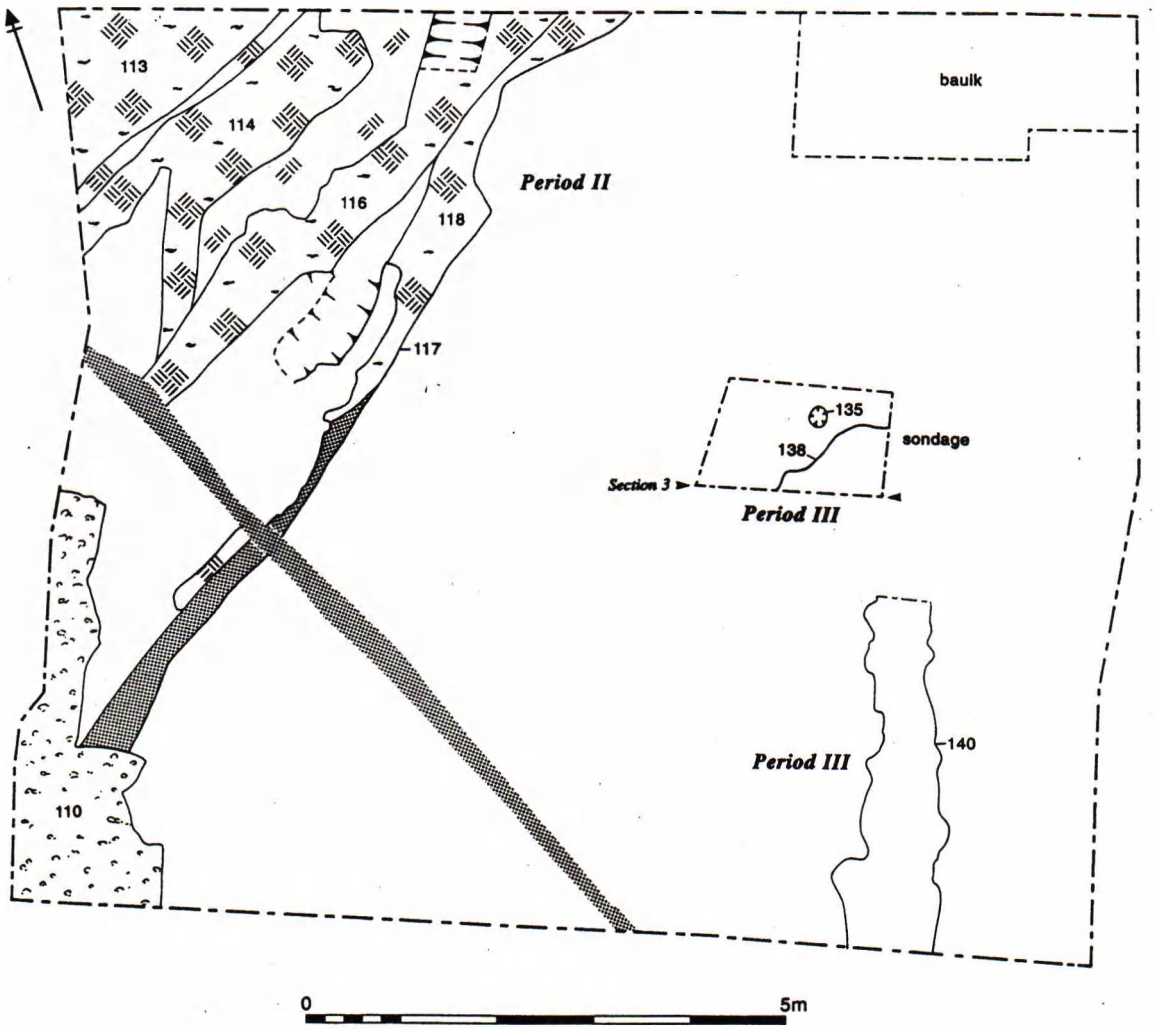

Fig.8 Plan of Area 1, Periods II-III

the trench section. The fill (327) was a mottled grey/brown clay with very frequent iron staining and occasional charcoal flecks. The cut had a rounded terminus at the southern end. To the south of this lay a circular posthole (324) with a U-shaped profile and a fill of mottled dark-grey/brown clay. To the east of these features lay an occupation layer of dark-grey/brown silty clay (412) containing small fragments of angular limestone, moderate iron staining and occasional burnt clay fragments. This was truncated to the south by Period II and III field drains.

Period II - Post-Medieval

As with the excavation at Inn's Court to the north there was a noticeable lack of medieval finds (Jackson, pers comm). This may be due to the construction of field drainage, trackways or ploughing during the late 18th to early 19th century (Period II) and the landscaping of the playing fields in the early 1980's (Period III). Farming activity at Inn's Court had removed a large proportion of the medieval archaeology, but even so the lack of residual finds is somewhat surprising. The post-medieval evidence in Area 1 (Fig.5) mainly comprised agricultural features dating to the 18th century and later. A series of parallel ploughmarks (106/8), (107/9), (117/8), (113), (114), and (116) cut across the trench on a north/south axis. An unexcavated posthole with a fill of firm grey clay (115) also appeared to belong to this period as did posthole (135/136) to the east. Both features appeared unrelated to other Period II features.

A metalled trackway (110), constructed with roughly hewn limestone cobbles set in a sandy brown mortar overlay some of the ploughed features and may represent an intermediate phase between Periods II - III.

Most of the Period II activity in Area 2 again comprised agricultural field drainage and trackways dating from the late 18th century. These had severely truncated the Period I features in most instances.

Period III - Modern

In Area 1 features relating to the 1982 landscaping of Filwood Park (Fig.5) included cuts for 2 yellow plastic field drains (140) and (149). Sealing the Period II deposits were 60mm subsoil (130), beneath the buried 1982 turf line (129) which was 160mm deep. Above this lay a 250mm layer of redeposited natural yellow clay (128), covered by the modern topsoil (127) which was 150mm deep.

As with Area 1, a number of cuts for plastic field drains criss-crossed Area 2 and had truncated a number of Period I-II features. The 1982 turf line had been buried beneath a layer of redeposited material below the modern topsoil.

DISCUSSION

The lack of stratigraphy in association with the Romano-British features and the limited area of the excavation makes the interpretation of the site tentative, although parallels can be drawn with the 1982 excavation c.100m to the north.

The majority of structural features relating to the domestic occupation of the site dated to the late 2nd-early 3rd century (Period I, Phase 1). Stone features were concentrated over the eastern half of Area 1, with enclosing ditches to the west oriented on a north/south line as in the 1982 excavations. The alignments of the ditches were projected in the direction of Area 2, providing the basis for the additional excavation, but were not found to continue and must have terminated in the short distance between the two areas. Neither did Area 2 exhibit any stone features of Period I origin. Whilst there was undoubtedly Period I activity in Area 2 this appeared to be almost exclusively Phase 2 ditches and pits, and suggested, as with the evidence from Area 1, that by Phase 2 the domestic occupation had been abandoned in favour of agricultural land use.

A similar enclosure was located during the 1982 excavations (Williams 1983) within 100m to the north of Area 1. There a double ditch ran north-south, returning at a right angle to the west, enclosing a building and areas of cobbling. It is difficult to draw any firm conclusion as to the nature of rubble spread (102), but the most likely explanation is that this was a demolished wall, within which the stone container (SF5) was once set. Whilst this potential stone coffin and two pieces of box flue tile may suggest potentially high status occupants this was not generally reflected in the pottery assemblage (see pottery report for a full discussion). Ditch (112) had previously been located in the 1997 evaluation, narrowing and curving away to the north-west. This may have served as a soakaway for the building represented by rubble spread (102). An area of pitched stone beneath the rubble at the north-west corner of (102) suggested the presence of a substantial wall footing, and this may have formed the corner of the building with (132) providing drainage and a walkway along the west side, and (112) acting as the major soakaway to the north-west. Whilst the interpretation of features (147) and (148), parallel ditches either side of a stone pathway (132), as the boundary of a small farmstead is tentative the negative evidence produced by Area 2 a short distance to the south lends weight to this viewpoint. All the fills (388), (373), (390) and (338) of the large irregular pit in Area 2 were homogenous and all produced pottery of late 3rd/4th-century date. This ties in with the Period I Phase 2 activity in Area 1, and the lack of stone features and structures in Area 2 supports the argument for a change of land use from occupation in Phase 1 to agriculture in Phase 2. Whilst this does not rule out Phase 2 occupation it appears likely that the centre of occupation had moved away from Area 1 by this time.

The potential foetus burial (SF5), which lay in close proximity to the boundary of the farmstead, may alternatively represent part of a discreet family cemetery set far back from the main thoroughfare. It has been suggested that this was the case at Catsgore (Leech 1982, 31), and at Inn's Court (Jackson pers comm), although generally the infant burials still tended to be within the walls of the buildings. Should, however, the stone coffin represent part of a cemetery this would suggest firstly that (102) might be part of a cairn, and secondly that the main thoroughfare lay

to the east of Area 1. The settlements at Inns Court and Filwood Playing fields were probably linked by a road which may have progressed eastward to the enclosure at Bamfield. The evidence from Area 1 and the excavations at Inns Court suggest this lay to the north/east of these farmsteads, perhaps running in between Area 1 and the 1982 excavation area. This slightly north-west/south-east alignment is reflected by a long and relatively straight field boundary shown on the Tythe map and Ordnance Survey. It is just possible that this field boundary respected the route of a former road.

In terms of its relationship with the sites at Inns Court, Filwood and perhaps Bamfield, there are good cases for at least three, if not four or five, enclosed farmsteads or 'compounds' of which Area 1 contained part of one, and ditch (369/400) in Area 2 may have been the boundary of another. The 1982 excavation 100m to the north revealed a well-defined rectangular enclosure, whilst at Inns Court a substantial boundary ditch enclosed one compound, beyond which the buildings of another possible compound were revealed. Jackson (pers comm) discusses these 'compounds' in relation to the settlement at Catsgore in Somerset. This has been categorised (Hingley 1991) as a small village (7 or more farmsteads), whilst 4-6 farmsteads represent a large hamlet. The Filwood and Inns Court sites thus represent at least a large hamlet on the basis of present knowledge, and taking into account the scale of settlement so far encountered was likely to have been a small village.

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THE CERAMICS (Fig.9)

by Rod Burchill

INTRODUCTION

The pottery recovered from the Filwood Park site was generally fragmentary with a number of sherds displaying evidence of abrasion suggesting they may represent secondary deposition. The sherds exhibited little evidence for use but were able to provide a chronology for the excavated contexts.

The pottery assemblage consisted of 1127 sherds [weight 11.460kg], of which 1039 sherds (92.2%) were from stratified contexts: 91 sherds (8%) being post-Roman in date. The small assemblage of tile, although mostly post-Roman, included two fragments of box-flue tile.

The pottery was examined for fabric and form. To assist with dating, the material was compared with a type series compiled as a result of the excavations at the nearby Inns Court Resource Centre (ICTF) (Burchill forthcoming) and an unpublished reference collection of Romano-British pottery fabrics held in the offices of Bristol and Region Archaeological Services (RF). Where necessary, forms were identified by comparison to the assemblages from Gatcombe (Branigan 1977), Chew Valley Lake (Rahtz and Greenfield 1977), Gloucester (Ireland 1983) and Ilchester (Leach 1982), The post-Roman pottery was identified by comparison to the Bristol Pottery Type Series (Burchill forthcoming) and was not given a site specific type number.

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

THE ASSEMBLAGE

Pottery was recovered from 54 stratified contexts. These had been assigned by the excavator to three periods with Period I consisting of two phases.

Area 1

Period 1, Phase 1
A group of 35 sherds from four contexts - 102, 120, 132 and 143 - all dating to the later 2nd or early 3rd century.

Mostly black-burnished wares (Fabric 18), the group also included part of a Severn Valley hemispherical bowl (Fabric 14) and a single sherd of Nene Valley colour coated ware (Fabric 15). The black-burnished ware mostly comprised flanged and bead-rim bowls, everted rim jars and a straight-sided dish with a slight bead to the rim - all probably early 3rd-century forms. There was a single sherd in a micaceous Gloucester fabric (Fabric 11).

Period 1, Phase 2
A large group of 430 sherds, mostly of mid-3rd to early-4th century date, recovered from 8 contexts. The group comprised mostly greyware - typically from Congresbury, black-burnished wares and lesser numbers of vessels from the Severn Valley kilns, and the Shepton Mallet and Gloucester industries.

The greyware vessels were typically everted rim jars and bowls whilst vessels in black-burnished ware included flange and bead rim bowls, small bead rim jars and jars with strongly everted rims. Rarer vessels included fragments from two cheese presses in a local greyware (Fabric 3), parts of a beaker from the lower Nene Valley, an Oxfordshire Colour Coated bowl and sherds from two vessels of New Forest origin - a Fulford type 27 folded beaker and a bowl decorated with bands of incised grooves and spirals (possibly a Fulford type 72) (Fulford 1975).

The group also included part of the base of a Samian dish with roulette band impressed into the upper surface, probably a Dragendorf 18/31R form (Webster 1966).

Period 2
A small group of 13 sherds from four contexts - 106, 107, 114, 121 - being mostly typical local 19th-century wares along with 4 sherds of residual Romano-British material.

Period 3
A single context (123) of four sherds two of which were residual Romano-British pottery the others local 19th-century redware (BPT264).

Area 2

The Area 2 contexts that produced pottery were separated by the excavator into Periods 1 and 2. Period 1 contexts could not be further defined by the pottery.

Period 1
An assemblage of 403 sherds recovered from a group of 26 contexts. The pottery mostly dated to the later 3rd and 4th century and the degree of residuallity was medium.

The pottery was comprised mostly of Congresbury greyware and Southeast Dorset black-burnished ware. A group of Severn Valley fabrics and products of the Gloucester kilns were mostly residual in these contexts.

The black-burnished ware was dominated by straight sided bowls or pie dishes (the so called "dog-dish"), flanged and bead-rim bowls and jars with strongly everted rims. Other vessels of interest were a beaker in a Shepton Mallet fabric, almost certainly residual; several Oxford Colour Coated bowls and a mortaria; and parts of at least one or possibly two White Ware mortaria, probably an Oxford product but a New Forest source might be possible.

Period 2
A group of 123 sherds recovered from 11 contexts. The assemblage as a whole was dated to the late 18th and 19th century; however, residual Romano-British material accounted for some 67% (83 sherds) of the Area 2, Period 2 pottery recovered. The post-Roman material was typical of that found throughout the area.

The residual pottery included a relatively high number of 2nd/early 3rd century Severn Valley and Gloucester vessels along with later Congresbury and black-burnished ware. The only vessel of note was the base of a Nene Valley beaker, body fragments of a similar vessel with decayed barbotine decoration, from contexts 341 and 343 (Period 1), might be part of the same vessel.

DISCUSSION

The pottery was typical of that found throughout the area both in the Roman and post-Roman periods.

The Romano-British wares could be matched almost exactly with the material recovered from the nearby excavations at Inns Court (Burchill forthcoming) similarly, the level of residual material was moderate to high, particularly in the Period 1, Phase 2 and Area II, Period 2 contexts. The vessel forms were typically domestic and were dominated by kitchen wares with few fine table wares being recovered, as at Inns Court.

A large number of sherds displayed evidence of varying degrees of abrasion; however, whether this was as a result of secondary deposition or of ground conditions was not clear.

The post-Roman pottery was almost entirely late-18th and 19th century in date and all were the products of the Bristol pottery industry. The four sherds of medieval pottery recovered from Area 2 dated from the 12th century: three were of local Avon Valley, manufacture, the other originating in the west part of Wiltshire.

THE FABRIC TYPE SERIES

1. Hard, slightly sandy grey fabric with common black grits, rare/sparse grey grog, and rare coarse quartz. Some surface sparkle. Probably local: 3rd/ early-4th century. Same as RF19/ICTF3.
2. Hard, sandy grey fabric with a pale-grey core. Common quartz and pale grey grog, sparse black iron ores. Micaceous surfaces.

3. Moderately hard, sandy, pale-grey fabric with grey/brown core. Common quartz, sparse grey grog and rare iron ores. Micaceous surfaces. 3rd/early-4th century. Similar to RF19/ICTF3.

Fabric types 1-3 are probably from the same clay source but not necessarily the same kiln.

4. Moderately hard, slightly sandy brown fabric with grey/brown core. Common quartz, rare quartzite and iron ores. Severn Valley: 2nd/3rd century. Similar to RF36.
5. Soft to moderately hard smooth grey fabric fired orange externally. Moderate red iron ore or grog. Surface sparkle.
6. Moderately hard orange fabric with sparse red grog and micaceous surfaces. Gloucester area (ICTF28).
7. Moderately hard, smooth orange mortaria fabric with sparse/moderate red iron ore. Surface mica. Trituration grits of quartz, quartzite and red iron ore (ICTF30).
8. Hard, smooth, pale-grey fabric with dark-grey core. Moderate dark-grey grog, rare white grits in a matrix of fine quartz. Surface sparkle. 2nd/4th century. Similar to ICTF41.
9. Hard, gritty grey to grey-brown fabric with pale-grey core. Abundant quartz, moderate grey grog and sparse/moderate black grits. 2nd/4th century. Similar to ICTF 8.
10. Hard, gritty, pale-brown fabric with a grey core. Abundant quartz and common mica.
11. Hard, smooth, orange-buff fabric with common fine red grits (probably grog). Probably Gloucester area: Late-1st/2nd century. Same as ICTF57.
12. Hard, sandy, grey-brown fabric fired brown externally with a grey core. Abundant quartzite, common quartz and rare iron ore. Severn Valley: 2nd/early-3rd century.
13. Hard, sandy, brown fabric with grey-buff core. Abundant coloured quartz and rare/common red iron ore. (ICTF44).
14. Hard,smooth, orange-brown fabric with grey core. Abundant mica, moderate/common orange grog, moderate quartz and rare white and black grits. Severn Valley: 2nd/3rd century. (ICTF32).
15. Hard, smooth, buff fabric containing rare red iron ores. Black (very dark-brown) colour coat. Nene Valley: late-2nd/mid-3rd. (ICTF67).
16. Hard, sandy, grey fabric with abundant very fine black grits, rare/sparse grey grog and rare quartz. Frequent very fine voids. Surface mica. Similar to ICTF54.
17. Oxford Colour Coated ware. Mid-3rd century +(ICTF4).
18. Southeast Dorset Black-burnished ware. 2nd-4th century (ICTF2).
19. Hard, smooth, brown fabric with a buff core. Common red iron ore or grog, moderate/common quartz and rare black grits. Very micaceous surfaces. Gloucester: 2nd century. (ICTF31).
20. Hard, sandy, buff fabric with pink-orange core. Abundant quartz, moderate pink and grey grog and sparse/moderate black iron ore.
21. Moderately hard, smooth, orange-pink fabric with grey core. Common quartz and rare iron ore. Lightly micaceous surfaces. Shepton Mallet. Same as RF38.
22. Hard smooth grey fabric, some orange to surfaces. Rare quartz, white and black grits.
23. Moderately hard, sandy, grey-buff fabric. Abundant quartz and white mica, sparse/moderate grey grog, rare white and black grits. 1st/2nd century. (ICTF72).
24. Hard, sandy, orange fabric with grey core. Abundant fine quartz, common red grog. Possibly a decayed colour wash. 1st/2nd century. Same as RF30.
25. Moderately hard, smooth, rather silty orange fabric with sparse red iron ore and micaceous surfaces.
26. Hard, sandy, black fabric fired brown externally. Abundant quartz and sparse/moderate black iron ore.
27. Hard, sandy buff fabric with black colour wash. Abundant quartz. Possibly Shepton Mallet: 2nd century.
28. New Forest Colour Coated ware (ICTF80).
29. Hard gritty dark-grey fabric with light grey surfaces sometimes with pale core. Abundant quartz, red and black iron ore and moderate ?shale (RF21).
30. Very hard, sometimes brittle, dark grey fabric with red-brown core. Inclusions of sparse quartz and black and white grits and rare grey grog. Occasional surface sparkle. Congresbury. Later-3rd - 4th century. (ICTF7).
31. Medium hard, sandy,grey to grey-brown fabric with a dark-grey core containing abundant quartz and rare iron ores or fine grog. (ICTF11).
32. Hard, sandy buff-white fabric with abundant quartz, rare iron ores and very rare flint. New Forest. (ICTF35).
33. Hard, sandy mottled mid/dark-grey fabric with pale-grey core. Abundant fine quartz, sparse quartzite and black grits. Local fabric possibly Congresbury. (ICTF73).
34. Hard, smooth pale buff fabric sometimes with a pink-buff core. Common to abundant quartz and moderate iron ores. Mortaria with wiped external surfaces. Clear and coloured quartz and quartzite trituration grits. Mid-3rd/4th century. (ICTF36).
35. Hard, slightly sandy orange fabric sometimes with a paler core. Very abundant fine red and black iron ores and common quartz. Micaceous surfaces. (ICTF33).
36. Hard, pale grey gritty fabric with abundant fine to coarse quartz and common black grits. Congresbury. (ICTF74).
37. Hard, smooth orange fabric with grey core. Abundant red and buff grog, rare quartz and red iron ores and very rare limestone. Some mica on surfaces. (ICTF32).
38. Hard, sandy fabric. Pale-grey with dark-grey core and black slip or wash. Probably Shepton Mallet. (ICTF18).
39. Oxford White Ware mortaria.

CATALOGUE OF ILLUSTRATED POTTERY

1. Small everted rim jar. Early-3rd century.
   Context 102 Period 1
   Fabric 18

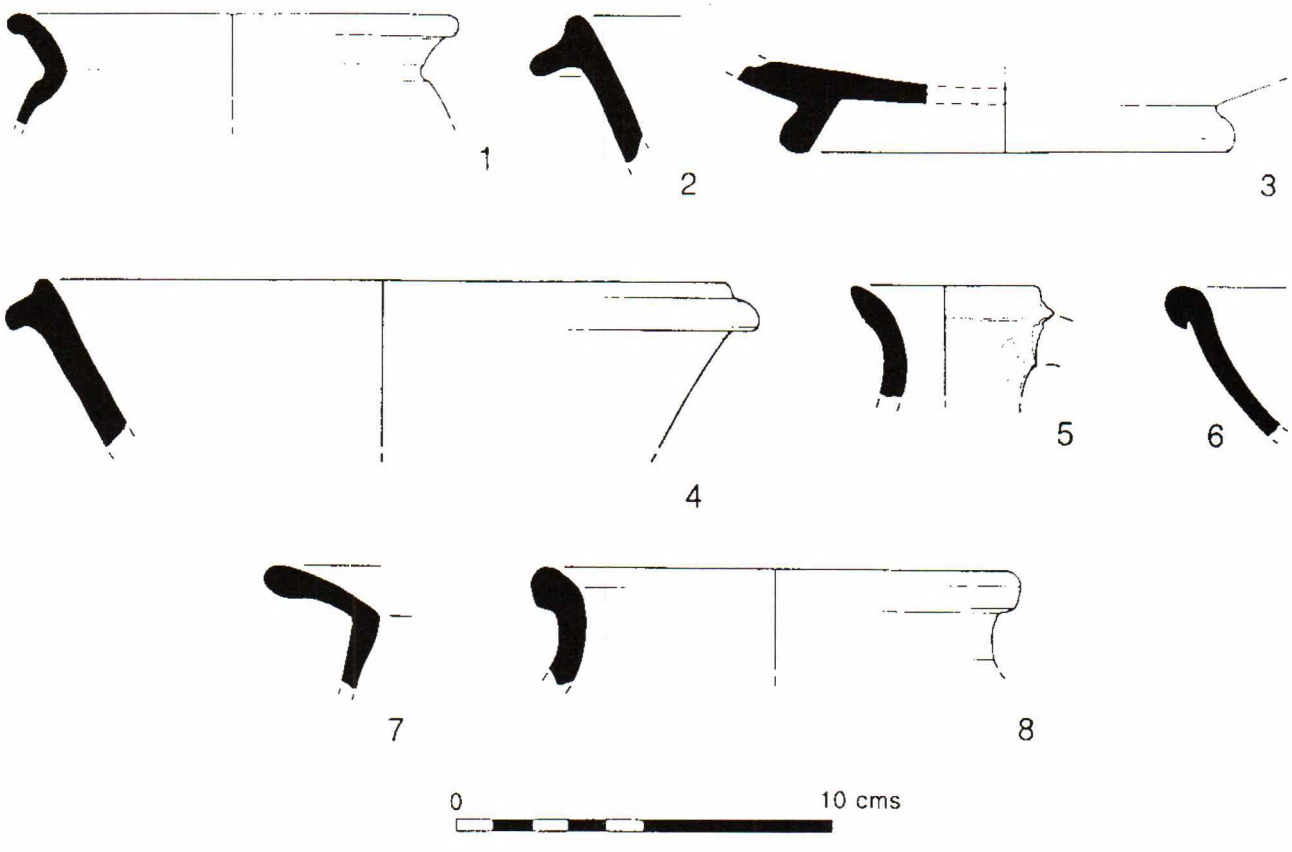

Fig.9 Illustrated pottery sherds

2. Flange and bead rim bowl. Early-3rd century.
   Context 102 Period I
   Fabric 18
3. Base of a Samian bowl, Dragendorff 18/31R, internal rouletted base ring.
   Context 101 Period II
4. Flanged and bead rim bowl. Early-4th century.
   Context 101 Period II
   Fabric 18
5. Upper neck and rim of a small flask or bottle. 3rd century.
   Context 111 Period II
   Fabric 18
6. Bead rim bowl coppying a Samian form. Probably 2nd century.
   Context 126 Period II
   Fabric 19
7. Everted rim jar. 2nd/4th century.
   Context 126 Period II
   Fabric 9
8. Storage jar. Congresbury later 3rd/4th century
   Context 126 Period II
   Fabric 30

OTHER FINDS

Lead Objects

Leaf-shaped object. The upper and lower surfaces are ridged along edges.
Maximum dimensions: length 27mm x 23mm x 10mm.
Context 120, SF3
Period I/Phase 1

Copper-Alloy Objects

Coin. Probably a barbarous radiate - 4th century (pers.comm R.Clark). Diameter 13mm.
Context 103, SF2
Period I/Phase 2

Elliptical section copper-alloy strip. Appears to be tapered towards one end. Grooved to imitate bead decoration. Possibly an armlet. Mis-shapen but diameter 60mm.
Context 125, SF4/6
Period I/Phase 2

Pear-shaped copper-alloy object with ferrous concretion to one surface. Possibly part of a pendant. 27mm x 15mm.
Context 355
Period I

Stone Objects

Sub-rectangular stone object. Two polished surfaces: one showing heavy wear. Pennant series. Incomplete 115mm x 130mm x 50mm.
Context 125, SF8
Period I/Phase 2

Incomplete circular stone object. Deeply concaved and worn on the inner surface. External "peck" marks. The lack of evidence for a hopper or socket hole suggests the stone was used as a saddle-quern. Dolomitic Conglomerate. Diameter 250mm x 70mm.
Context 139, SF9
Period III

Incomplete whetstone. Three polished surfaces. Old Red Sandstone.
67mm x 58mm x 29mm.
Context 125
Period I/Phase 2

Oolitic limestone trough or coffin. The object is fragmentary and incomplete. Possibly wider at one end. An elliptical niche cut into one corner might represent a hand hold. The stone is very weathered; however, it is possible the object was originally decorated.
Length 360mm x 210mm x 175mm.
Context 102, SF5
Period I/Phase1

Stone marble. Diameter 16mm.
Context 300
Period III

Worked flint, possibly a scraper.
Context 403

REVIEW OF ARCHAEOLOGY 1996-1997

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 International Museum Code
CAT	-	Cotswold Archaeological Trust
CMAG	-	City Museum & Art Gallery
GGAT	-	Glamorgan-Gwent Archaeological Trust
JBA	-	J Blake Associates
McGAC	-	McGill Archaeological Consultants

The review of archaeology is arranged alphabetically by parish and covers the four unitary authorities of Bath and North-East Somerset, Bristol, North Somerset and South Gloucestershire, formerly Avon County.

B&NES

BATH, *Combe Hay* ST 3741 1603. As the Trust's contribution to two National Archaeology Days in the middle of September, two trenches were excavated on the line of the Fosse Way where it forms the boundary between the parish of Combe Hay to the south-east and the parishes of Englishcombe and Dunkerton to the north-west.

The main results were to show that the early road was not built on a high agger but was wide and well-made. The northernmost trench showed the early road was built in a terrace on the hillside. As a result, it was buried by nearly two metres of plough-washed soil, which here composed the bulk of the "agger". The Roman road surfaces were composed of oolitic limestone cobbles laid on beds of heavily compacted fullers' earth. The only other surfaces recorded were 18th-century track metalling.

P Davenport, BAT

Former Oldfield Boys School, Wells Road ST 747 643. A field evaluation here revealed elements of a "suburban villa", a rare class of monument relatively common in Bath (others include those recorded in Daniel Street, Norfolk Crescent and on the Lower Common). The presence of a tessellated pavement over an earlier op. sig. floor, fragments of painted wall plaster and box flue tiles all indicate a high level of Romanisation and a building of relatively high status. The structure is in excess of 35 metres long (east-west) and over 12 metres wide (north-south). The walls and robber trenches that have been revealed suggest the building had a minimum of 7 rooms. Plough damage had removed nearly all floor surfaces except for one large room where a tessellated pavement had replaced an op. sig. surface. Demolition layers sealing the floor and robber trenches were 4th century. There was some evidence of an earlier phase of occupation under the building.

P Davenport, BAT

Southgate ST 752 645. Seven trenches were excavated under the direction of Robert Bell over a period of eight weeks, from March to May, designed to evaluate the archaeological significance and potential of the proposed Southgate redevelopment area. This area is 3.2 hectares in extent and is bounded by Southgate Street, Orchard Street, Kingston Road/Manvers Street, and the River Avon. Historically the eastern two-thirds of the area was part of a large meadow called The Ham, part of which was enclosed and converted into orchards and market gardens in the early 18th century, and all of which was covered by streets and urban development during the 19th century. The western third was formerly occupied by the properties along the east side of Southgate Street, demolished in the early 1970s but originally part of the medieval suburb which grew up between the walled city and the Old Bridge. An open ditch called Bum Ditch formed the eastern boundary of the properties until it was replaced by a covered conduit in the 18th century.

Two of the trenches, on the east side of the site, were designed to test Dr Kellaway's theory that the River Avon followed a course further north than its present route in the prehistoric and Roman periods, but had subsequently silted up and shifted southwards. Excavations revealed Mesolithic flint horizons within the alluvium, only 0.5-1m below the surface of the pre-Victorian meadow, with very abraded Roman pottery above it. The earlier river bed beneath the alluvium (estimated to have a maximum thickness of c2.5m), must be far earlier than Kellaway suggested. It is extremely interesting to note, despite the number of times the River Avon has flooded just in the last two centuries, how little silt has been deposited in the last two thousand years.

Three other trenches revealed no Prehistoric (post-Mesolithic), Roman or medieval features. Dumped material containing large amounts of early-18th-century pottery and other artefacts with a cultivated soil over it related to the market gardens created following enclosure by Richard Marchant in 1710.

The last two trenches were near the northern and southern ends of the development area, on the line of the Bum Ditch. These demonstrated that the ditch had been re-cut at least twice. It is likely to have a total width of 6-7m and a maximum depth of 1.5m. It contains waterlogged well-stratified material which can be sub-divided into medieval, 16th- and 17th-century groups. The trenches demonstrated that the ditch contains extremely rich environmental evidence.

It has not yet been possible to investigate any of the tenements themselves because they are beneath the Southgate Shopping Centre.

P Davenport, BAT

33 Westgate Street ST 3749 1648. An assessment revealed between 1-1.5m of stratified Roman deposits under Georgian cellars. These were variously mortar floors, apparent yard surfaces, and occupation silts. No walls were encountered but collapsed rubble indicated walls nearby. The levels did not appear overly truncated, and below the cellar floors were capped in places with a dark earth-like deposit. There were also areas that were without cellars. 14th/15th-century garden soils were encountered 0.45m below the surface at the north of the site, but substantial parts of the site were disturbed by large-scale 18th-century pitting. Below this a horizon was recognised which may well be the top of the dark earth. An ensuing watching brief recorded early post-medieval cobbled surfaces, medieval footings and occupation silts. Roman levels were not penetrated by the works.

P Davenport, BAT

18 Crescent Lane ST 744 655. This site was evaluated because of the proximity of Roman remains. None were found, however, on this small site. It had been a mews for the Royal Crescent and prior to that open fields. A field track of c1740 was found, however, with evidence of animal trampling on the old ground surface beside it.

P Davenport, BAT

1 New Bond Street Buildings ST 750 650. This site is occupied by two Grade II listed buildings, knocked into one since 1877, one dating from the creation of Green Street, c1719, the other from the creation of New Bond Street, c1810. Both had been gutted and re-ordered on several occasions for retail use. The assessment was able to define the various effects of the re-orderings, isolate features and elements surviving from particular periods, especially the original ones, and to restore the original layouts and character of each building.

P Davenport, BAT

Westgate Inn ST 750 648. This building had been gutted in 1969. BAT were commissioned to analyse the building history, in particular to assess the survival of historic fabric and the impact of the proposed refurbishment. There had been an inn on the site since the late 17th century, but the current structure dated from 1795, modified for road widening in 1810. In 1903 a large block on Parsonage Lane was added to the property and rebuilt as hotel accommodation. The 1903 additions had also included major changes to the Georgian building and both wings were thoroughly reworked with much internal demolition in 1969. Only the main structural elements, parts of the main staircase and the facade survived this process. All other features had been stripped out.

P Davenport, BAT

Circus Mews ST 747 654. Proposals for housing north of the Circus required an archaeological assessment, the main concern of which turned out to be the potential for garden archaeology of 12 Circus. In fact, observation of later builders' test pits showed no sign of this nor of any Roman burials, which are relatively common along a line just north of the site. However, further evaluation is planned.

P Davenport, BAT

Spa Restoration ST 750 647. An assessment and small evaluation on the site of the proposed spa revealed substantial post-Roman deposits, confirming the importance of the archaeological deposits here.

P Davenport, BAT

Terrace Walk/Grand Parade ST 753 648. Major road repairs here have the potential for significant archaeological impact. The site overlies the city ditch and is adjacent to the city wall itself. The drain from the King's Bath runs directly under the site. The site is also one at which it would be possible to test whether Roman occupation continued east of the wall at any time. A trial trench over the line of the drain in Parade Gardens showed that the drain itself was set in a wide construction trench which was closely dated to 1694-1706 on the basis of rare types of clay tobacco pipes. The drain was of wall and slab construction typical for a culvert of this date. This also ties in well with the opening of the first assembly rooms on this site in 1708, Harrison's Rooms. Harrison also opened Walks around his Rooms, the precursor of Parade Gardens. The level of Harrison's Gravel Walks was clearly visible in the trench, and was 1m below the present ground surface. It seems that this drain replaced an open leat which ran from an opening in the city wall opposite the present site of York Street, north-east to the river. Inside the walls this water course ran underground. This culvert still exists and is very probably medieval, and monastic. The assessment also brought to light documents indicating that the Roman drain was traced very much further south in the mid-18th century than when it was rediscovered in 1878.

P Davenport, BAT

Hazelwood House, Warminster Road ST 761 656. A watching brief was carried out. The site lies some 400 metres north-west of the Roman inhumation cemetery in Sydney Gardens, and a similar distance from evidence of

Roman activity towards Bathampton. There were no finds or deposits of significance.

P Davenport, BAT

Haycombe Drive, Twerton ST 723 639. Two Bath stone coffins were found and lifted during gardening activities on this hill top housing estate. One was adult sized and the other for a small child. Finds included 3rd-4th century pottery and some animal and human bones. These were found in close proximity and in some cases (unclear) in the coffin. Human bones have been collected from both coffins (the police left the shoulder blades and some digits). One other coffin was found about 150m away in 1983.

P Davenport, BAT

1-2 Union Street ST 750 648. The premises, owned by Clarks Shoes and situated on the corner of Westgate Street and Union Street, is currently undergoing major refurbishment. Very substantial foundations were recorded, extending over the whole of the trench, and beyond. They remain unexcavated, but at least three horizontal courses of large limestone rubble separated by bands of orange mortar were visible in the side of a later pit. They have an estimated depth of up to 1.5m and are almost certainly Roman (they are certainly pre-12th century). They may form part of a podium supporting the monumental building which Barry Cunliffe predicted on the basis of a very large decorated cornice block found by James Irvine in 1869, beneath the south side of Westgate Street. The building situated to the north of the precinct of the temple of Minerva could be a theatre or else another temple. Either way, it is potentially of outstanding importance. The foundations were cut by a 12th-century pit which in turn was cut by the coursed stone footings of the north wall of a late-15th-century cellar. The north-west corner and part of the west wall were also found. Evidence of medieval and early post-medieval cellars in Bath is extremely rare owing to the scale and depth of 18th-19th century-cellaring, so these footings and the deposits around them are of considerable interest.

P Davenport, BAT

Richmond Heights, Beacon Hill ST 750 664. A watching brief followed the completion of an evaluation on this site, which is being developed for housing. Both were effectively negative, turning up only a few abraded sherds of Roman pottery and a small dump of 17th-century pottery in one corner of the site.

P Davenport, BAT

Rainbow Wood, Combe Down/Claverton Down ST 773 633. A watching brief on a Wessex Water pipeline on Claverton Down revealed evidence of Roman occupation, extensive pre-medieval field systems, and a post-medieval quarry. In addition, over 300 flint artefacts were recovered. This was quite an extensive piece of work and a preliminary basic survey of the hitherto unrecorded field systems was also carried out either side of the pipeline.

P Davenport, BAT

BRISTOL

ALMONDSBURY, *Highdene, Cribbs Causeway* (BRSMG 38/1996) ST 5720 8045. An archaeological desk-based assessment of a plot of land at Highdene, Cribbs Causeway showed that there was likely to be no significant archaeological evidence on the site. Documentary research revealed that the site had always been open land and lay 1km from the medieval settlement of Charlton.

Peter Insole, BaRAS

BEDMINSTER, *Sheene Lane* ST 583 711. A desktop study was carried out on this site prior to redevelopment, adjacent to a possible Saxon church site and area of medieval finds to the north-east. The study area was found to have been an area of agricultural land under pasture and a roadway in the 1841 Tithe map. This was later developed into a brick and tile works with associated claypits by 1870 and the site of a smelting works by 1965. (BSMR 20010).

Rod Burchill, AAU

Merrywood Girls School, Downton Road, Novers Park (CMAG 1997/0009) ST 5865 7010. An evaluation took place on the site of the former Merrywood Girls School following a proposal to build a Health Park. The fieldwork took place between 20-23 October 1997. The five trenches confirmed the findings of an earlier desktop study, that there was no occupation on the site until the 1930s with the building of Merrywood Girls School. One sherd of Romano-British native ware pottery and two pieces of unworked flint were found in Trench 4, which probably arrived on the site as a result of landscaping and the importation of landfill from other areas.

Jayne Pilkington, BaRAS

BISHOPSWORTH, Symes Avenue, Hartcliffe. ST 5845 6755. An archaeological desktop study on land currently occupied by Symes Avenue Shopping Centre was undertaken. The study showed that the site had been part of a field in the possession of Pigeon House Farm formerly known as Arthur's Court and had been pasture since at least 1730. It is possible the farm had been the site of the manorial court of the Arthur family, lords of the Manor of Bishopsworth in the medieval period.

Rod Burchill, BaRAS

Inns Court Green, Knowle West ST 5877 6022. An excavation was carried out on land adjacent to the community centre and Holy Cross Church before redevelopment of the site for a new community centre and church. The excavation, covering an area of about 1,000m2, was located 300m to the west of a Romano-British settlement discovered in 1982 and adjacent to the medieval manor house of Inns Court, of which only the early-15th-century stair turret survives.

The earliest occupation consisted of the remains of two possible gullies containing late-Iron Age/early Romano-British pottery. Of a similar date was a large coarseware pot,

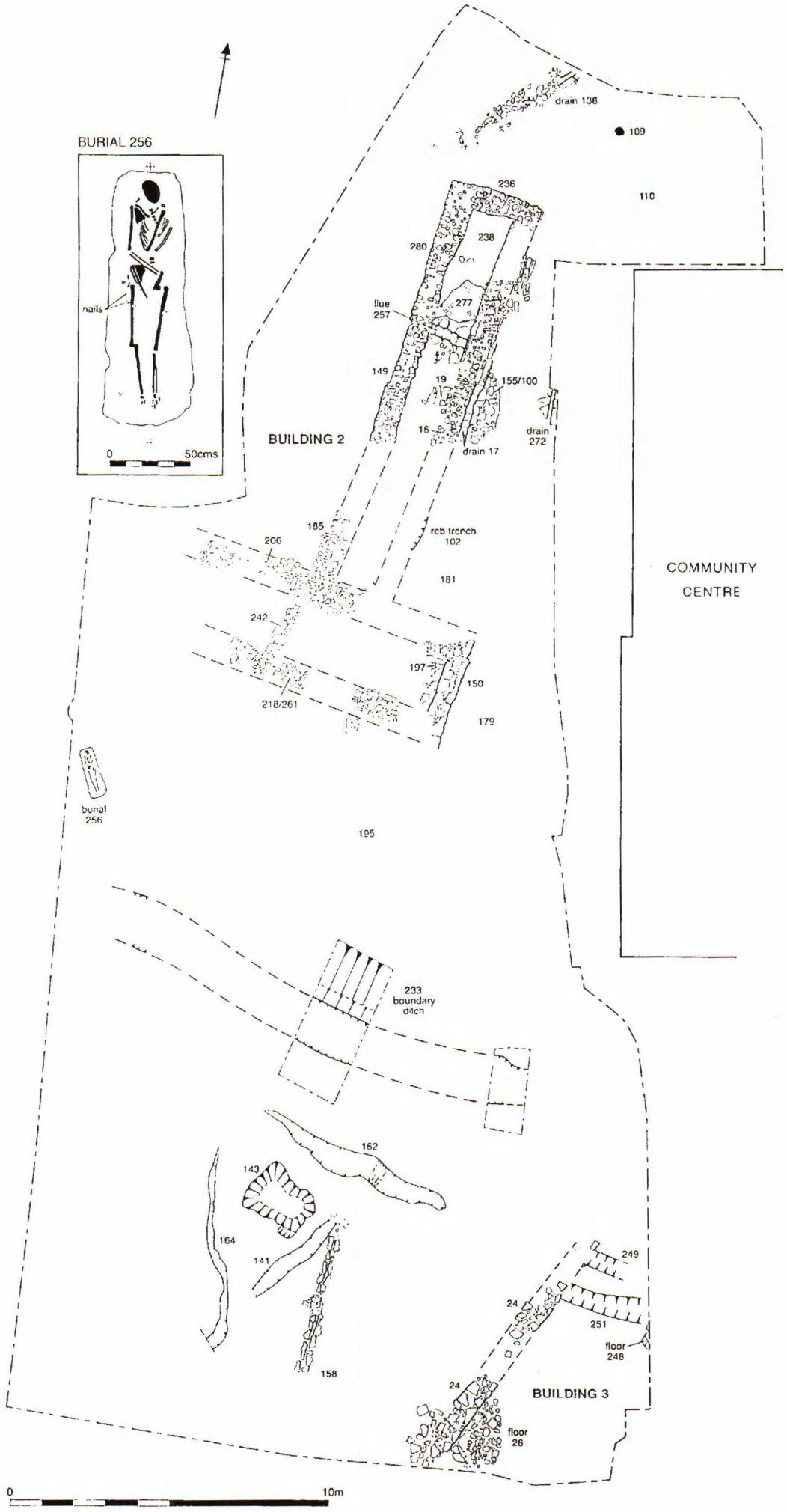

Fig.1 Inns Court excavation, plan of Buildings 2 and 3

set in a pit cut into the natural clay, and which contained three almost complete pottery vessels. The evidence for occupation during the 1st and 2nd centuries was slight and was represented by a shallow depression, a pit, three post-holes and the remnants of occupation layers. Two stone-built drains, two pits and a number of shallow gullies dated to the first half of the 3rd century.

The stone foundations and, in places, the remains of the walls of three buildings were uncovered, which had been constructed in the latter half of the 3rd century and continued in use until at least the middle of the 4th century. One room in Building 1 (not shown on Fig.1), to the north of the community centre, retained a substantial stone-flagged floor while the adjoining room had the fragmentary remains of a cobbled floor surrounding what had once been a circular feature comprising a flagged path and pitched stone foundations around a central pit. The remainder of Building 1 lay outside the area available for excavation. Building 2, (Fig.1) to the south-west of Building 1, had an east wing measuring 12.8m long by 1.2m wide internally and a south wing of which only one room, 4.5m long by 2.7m wide internally, survived, the remainder having been destroyed by a modern road. Although Building 2 had been reduced generally to foundation level by later disturbances a fragment of stone-flagged floor remained together with the base of a small furnace lying across the width of the east wing. Buildings 1 and 2 were separated by what was probably a courtyard containing two stone-built drains. Both buildings were on the crest of a slight slope in the natural ground surface just to the south of which, and downhill of Building 2, was a boundary ditch 1.5m wide and up to 0.4m deep. Outside Building 2 was a human burial orientated north/south in a grave containing coffin nails. Building 3 (Fig.1) lay south of the boundary ditch but its remains were very fragmentary, comprising one short length of wall and a small area of cobbled floor. A number of gullies and a rubbish pit were probably associated with Building 3. The buildings had been abandoned in the second half of the 4th century and some layers of debris associated with their demolition or collapse were found, including a pile of the hexagonal Pennant sandstone tiles which had formed the roof of Building 2.

The site appeared to be connected with that excavated to the east in 1982 and again in 1998 (report, this volume) and together formed part of a large farming settlement, although metal slag associated with the furnace in Building 2 pointed to some industrial activity.

Most of the medieval manor house of Inns Court was not available for excavation as it lay below the community centre and vicarage. The evidence for the west range of the manor house, probably dating to the 14th century, consisted of one wall which was almost certainly the north wall of the range. A layer of clay abutting the wall was the make-up for an internal floor. A cobbled surface and a fragment of wall to the west of the range also dated to the 14th century.

The west end of the north range was excavated and found to be of a different construction to the west range. It was probably first built in the early-15th century when Sir John Inyn, Lord Chief Justice of the King's Bench, owned the manor house and lived there until his death in 1439. It was occupied by his family until 1529 when it passed to the Kenn family and then by marriage to the Poulett family of Hinton St George in Somerset. Thereafter it was inhabited by tenants and went into decline. An outbuilding to the west of the west range, which was shown on an 1827 plan of the house, was uncovered and found to date from the 17th century.

The Poulett family sold the Inns Court estate in the early-19th century to a Thomas Daniel who, in the latter part of the 19th century, demolished most of the medieval manor house and replaced it by a farmhouse. A cobbled farmyard found during the excavation to the west and south-west of the farmhouse had removed a great deal of the medieval and Roman occupation during its construction in the late-19th century. Inns Court Farm was purchased in 1897 by Thomas Flower who owned the nearby Cox Bottom Farm, before finally coming into the possession of Bristol City Council in 1939 who required the land for the Knowle West housing estate.

Reg Jackson, BaRAS

BRISLINGTON, *Pool Yard, Hollywood Road* ST 6215 7085. A desktop study of land known as Pool Yard, Hollywood Road showed the site to have been used as gardens throughout the 19th and early-20th century. No evidence was found for the site prior to 1791 when it was described as orchard.

Rod Burchill, BaRAS

809-811 Bath Road ST 6239 7035. A watching brief was carried out between late July and early August on a site adjacent to the main A4 Bristol to Bath Road during its redevelopment. The land had been open countryside until its inclusion in part of a new trading estate in the 1930s. However, due to disturbance caused by the site's previous development any archaeology which may have been present had been destroyed. This was later confirmed and it was clear that no archaeology was present.

T Longman, BaRAS

CASTLE PRECINCTS AND ST AUGUSTINE/ST LEONARD, *Fosse Gate and Stone Gate* ST 5867 7312 & ST 5922 7319. An archaeological desktop study was carried out on the Fosse Gate and Stone Gate, two river control gates on the River Frome where it passes through central Bristol. The study on behalf of the Environment Agency looked at development of the area from the medieval period and assessed the impact on any likely surviving archaeology of proposals to refurbish or replace the control gates.

Rod Burchill, BaRAS

CHRIST CHURCH, *1 Wine Street.* ST 5889 7306. A watching brief was undertaken during lifting of the Pennant

floor slabs of the cellar and the excavation of approximately 0.1m of make-up beneath.

Covering the western half of the cellar and also in the south-east corner of the cellar was a sandy red clay which was very clean and contained no finds. This was possibly a natural deposit. This clay was disturbed over the central area of the cellar by two drains and a stone-lined tank with a brick vault. The earliest drain was brick-lined with a stone-slab covering which had been removed along most of its length. The drain appeared to be 19th century in date. Running almost parallel to the brick-lined drain was a modern ceramic sewer pipe.

The north wall of the cellar was the external face of the south wall of Christ Church. It was built of rubble with some dressed freestone, bonded with a very hard white/grey mortar. The east wall of the cellar was constructed of roughly-coursed Pennant sandstone bonded with a creamy-grey mortar containing flecks of coal. A brick-built fireplace occupied part of the east wall.

The curving cellar wall on the Wine Street frontage was stone-built and of a similar construction to the east wall. Two brick pillars in the wall formed three adjoining entrances to further areas of cellars under the pavement of Wine Street.

Reg Jackson and Jayne Pilkington, BaRAS

HENBURY *Campbell Farm Drive, Lawrence Weston* (CMAG.1997.035) ST 53950 78250. A desktop study was carried out on the site of a proposed residential development (see below). This indicated that the assessment area lay within an area of dense Romano-British occupation, situated on a ridge of higher ground on the fen edge, with some evidence of prehistoric activity. The site lay within 50-100m of Saltmarsh Drive, where evidence for Romano-British occupation was found by G C Boon in the late 1940's.

Simon Cox, BaRAS

Campbell Farm Drive, Lawrence Weston. ST 5395 7825. A field evaluation was carried out in September 1997 in advance of residential development. The objective was to investigate the 0.5 hectare site for possible Roman remains, a number of sites and find spots having been located close by along the ridge of higher ground lying to the south and east of the site (BaRAS Report 393/1997, 5), most notably the corridor villa excavated by Boon in the 1950s; and post-medieval remains, possibly associated with buildings of the 18th century or earlier (BaRAS Report 393/1997, 5), situated to the south-west where Campbell Farm now lies. A further objective was the investigation of the geology of the site, lying as it does on the boundary between alluvial silts and clays of the Severn estuary and the Mercian Mudstone of the Triassic period [what Boon refers to as Trias Marl (Boon 1950, 13, fig 1)].

In all four trenches excavated no archaeological features or remains were discovered.

J Blake, JBA

Washingpool Farm, Avonmouth (CMAG.1997.11) ST 53370 91590. An archaeological field evaluation was carried out prior to the construction of an effluent pipeline through the site. A single trench revealed several post-medieval features related to the farm such as cobbled surfaces and walls. A large pond feature containing 19th-century material was also revealed. The earliest dated artefacts recovered were residual 18th-century pottery sherds, suggesting that the farm west of the A403 has post-medieval origins. An earlier site of Washingpool Farm, should it be found to have medieval origins, was probably centred on the moated site located to the south-east.

Peter Insole, BaRAS

Moorend Farm, Avonmouth ST 535 804. An archaeological evaluation consisting of two hand-dug trenches was undertaken on land either side of the Salt Rhine to the south of Moorend Farm. Trench 1, south of the Salt Rhine, was excavated to a depth of 1.1m. No evidence for anthropogenic activity was noted. Trench 2 was excavated to a depth of 1.2m within the ditched enclosure surrounding Moorend Farm, a single sherd of 12th-century pottery was recovered from the topsoil/alluvial interface.

Rod Burchill, BaRAS

Effluent pipeline between Avonmouth and Seabank Power Station ST 533 797 to ST 536 822. A watching brief took place between early March and early June during the groundwork phase of the laying of a new effluent pipeline across part of the Henbury Levels. The work was conducted with the hope that previously identified prehistoric and Roman sites sealed beneath the alluvium could be revealed. Unfortunately this was not the case and the deposits recorded comprised alluvial clays and occasional organic horizons.

A series of brown organic soils and organic clay horizons were recorded at intervals in the exposed trench sections. Because the horizons were observed only intermittently it is not possible to interpret any of the gaps as indicating the presence of any palaeochannels, however radiocarbon dates (cal 2 sigma BC) were obtained from several samples and produced dates which ranged between 2580-2290 BC to 3780-3360 BC.

T Longman, BaRAS

Rockingham Farm, Avonmouth ST 528 808. The Severngate development lies off the A403 Aust-Avonmouth road, between the Mere Bank and the Salt Rhine, astride the Lawrence Weston road. The development was granted planning permission in 1993, and the developers (Western Properties Ltd and AMEC Developments Ltd) funded a programme of archaeological work. The land was bought by Burford Western Estates in 1997, and further work was undertaken.

Site 1: Rockingham Farm (ASMR 9233) ST 5273 8091. The post-medieval farmstead of Rockingham Farm was surveyed in 1994 prior to demolition. The oldest part of the

complex was 18th century.

Site 2: Rockingham Farm moated site (ASMR 5215) ST 5280 8085. This large moated site comprises a rectangular moat adjoining the Salt Rhine, with two platforms. The site was evaluated in 1994 and excavated in 1997. Occupation (starting in the 13th century, to judge from the finds) was always restricted to the north part of the North Platform. Occupation finally ended early in the 19th century, and it seems likely that the site was abandoned in favour of the open site of Rockingham Farm. The medieval occupation seems to have been that of a minor landowner on the edge of the coastal pasture of Mead Ham (Great Madam).

The excavations also found a Roman brooch (2nd century) and a shield stud. The context for these finds was provided by further evaluation in 1997, which located a band of blue clay within the Wentlooge deposits at a depth of 1m-1.2m, with shallow layers of organic material above and below. This band, also found at Goldcliff, Newport (Locock 1996), represents a stabilised ground surface which has then been flooded. The organic deposit has been identified as charred reeds. The preservation of this deposit is an indication of this two-stage process of stabilisation and flooding, showing that the land is on the margin of flooding at the time. The east ditch of the moated site overlies a small ditch underlying the band, and it is thought that this Roman ditch determined the alignment and size of the medieval moat, which was much larger than necessary.

Sites 3-5: Cold Harbour earthworks (ASMR 5216, 5217) ST 532 806. Three earthwork enclosures lie east of Rockingham Farm south of the Salt Rhine, associated with a droveway leading to the 'Stoneing bridge' across the Salt Rhine, documented in the 17th century. The sites were surveyed in 1994, and evaluation of one of the sites recovered large quantities of 16th-18th century pottery, and it seems that these enclosures represent early post-medieval small farmsteads on the Levels, encroaching on the common pasture. The sites will be preserved within the development.

Site 6: Old House Ground (ASMR 5218) ST 5336 8042. This earthwork enclosure lies east of Cold Harbour, on the bank of the Salt Rhine. It is recorded as 'Old House Ground' in 1772, implying an early post-medieval date for the 'House', similar to the Cold Harbour sites. The site was surveyed in 1997.

Habitat creation: The boundary of the development was extended in 1997 to include land north of the Salt Rhine. Borehole data suggested that the Salt Rhine followed the course of an older, larger, channel, and occupation was considered unlikely. The evaluation revealed no archaeological deposits.

The area formed part of a desk-based assessment undertaken by BaRAS for Bristol City Council in 1996 which notes the presence of ridge and furrow across the site (BaRAS 1996, fig 2). It is interesting to note that Taylor's map of 1772 (BaRAS 1996, fig A2) suggests that it was a late enclosure (characterised by non-sinuous boundaries and simple 'acre' names ('Seven Acres', 'Five Acres', etc) making the ridge-and-furrow post-medieval in date, as has been suggested elsewhere. A full report is currently being prepared for submission to TBGAS.

Martin Lawler, Adam Yates, Richard Roberts, Martin Locock, GGAT

HORFIELD, *St Michael & All Angels Church, Bishopston* (CMAG 1997.022) ST 59135 75500. A desktop study was commissioned on the proposed site of housing association sheltered flats for the elderly. Whilst this yielded little direct evidence for archaeology on the site, a close examination of the 1843 Horfield tithe map indicated a possible barrow cemetery to the north-east of Horfield Parish Church. Archaeological evidence pointed to a possible pre-Christian religious site near Horfield Parish Church, and also suggested that Gloucester Road may follow the route of a Roman road.

Simon Cox, BaRAS

St Michael and All Angels Church, Bishopston (CMAG 1997/022) ST 59135 75500. An archaeological watching brief was conducted on the site of St Michael and All Angels church, following its demolition, in order that a three-storey block of flats could be constructed. The watching brief confirmed the findings of the desktop study conducted by BaRAS that the site was used as open pasture until the development of the church in 1858.

Jayne Pilkington, BaRAS

Monks Park School, ST 5950 7815. A desktop study on land at Monks Park School, Horfield, confirmed that the study area had originally been woodland in the ownership of St Augustine's Abbey, Bristol. From at least 1708 and probably from much earlier, the site had been agricultural. A study of aerial photographs identified a number of cropmarks. An associated geophysical survey was somewhat inconclusive but did identify a number of possible infilled ditches and linear stone features.

Rod Burchill, BaRAS

ST AUGUSTINE, *The Harbourside Centre, Canon's Marsh* (CMAG 1997.054) ST 58476 72398. An archaeological evaluation of land to the south of V-Shed was carried out prior to the development of a new Centre for the Performing Arts. Part of the outer wall of the Albert dry dock was located at the north end of one of the two trenches, cutting into 18th-century landfill deposits. This was sealed by late 19th-century landfill contemporary with the infilling of the dock, which is shown on the 1883 OS map. One sherd of 13th-century pottery was recovered from the base of the southern trench. Further to the east a deep machine sondage revealed vast quantities of 19th-century landfill dumped in order to extend the waterfront eastwards. It seemed likely that any medieval waterfront activity would lie along the western edge of the site and beneath Canon's Road.

Simon Cox, BaRAS

Canon's Road, Canon's Marsh (CMAG 1997.048) ST 59500 72550. An archaeological watching brief was carried out during service diversions along the length of Canon's Road. The earliest feature was a medieval riverfront wall running east-west beneath Anchor Lane. The return of this wall had been previously identified during an excavation beneath the U-Shed, but had remained undated, though presumed to be medieval. A length of 5.5m of the wall was exposed, the stonework and mortar being typical of medieval walls in Bristol, although it had been repaired on many occasions. As it was not possible to preserve the entire length of the wall in-situ a limited hand excavation was undertaken to reduce the wall in areas where services were to pass through. This enabled dating evidence, in the form of pottery and roof tile, to be recovered from the core of the wall, placing it in the first half of the 14th century. Both the north and south walls of Tomb's 19th-century dry dock were located further to the north, as were related buildings. The dock had been previously located beneath U-Shed, and the alignment of the south wall also suggested that the wall of the basement beneath the Leadworks, also identified in a previous evaluation, was founded upon the dock wall. This confirmed the suggestion that the basement of the Leadworks was in fact part of the former dry dock.

Simon Cox, BaRAS

New World Square, Canon's Marsh (CMAG 1997.002) ST 58368 72437. An excavation was carried out on the site of a proposed underground carpark for the new Science World and Wildscreen leisure complex as a follow-up to two evaluations earlier in the year. These had identified the remains of industrial buildings, and the excavation aimed to identify the nature of these as well as providing an insight into the early environment of the marsh. A potentially medieval drainage rhine was revealed at great depth at the north-east corner of the area.This is clearly indicated on Rocque's 1742 map, and possibly on Millerd's 1673 plan. This was sealed by 18th-century layers, and may have been re-cut at a later date prior to the construction of a factory in the late-18th century.

The factory was identified as a rope manufactory from plans in the Bristol Record Office, and had been largely rebuilt in the late-19th century. The excavation suggested that some of the walls were of a much earlier rope factory shown on Rocque, which was confirmed by the key to the plans which indicated the re-use of old walls. A long narrow structure running along the northern edge of the area had grooves for a rail bed, which was shown as a tramway to the tarring house on the plans.

An area excavated to the south revealed a substantial buried soil horizon which may have accumulated in a more stable environment following the construction of the Floating Harbour in 1809, which had effectively removed the threat of periodic inundation. A large ditch, possibly for a culvert, was excavated from just above this horizon in the mid-19th century. The remains of a Saw Mill, built between 1851-55, were overlying a brief landfill sequence sealing the ditch. A large base for a steam engine, boiler, or steam sawing machine was situated at the west end of the building.

Simon Cox, BaRAS

ST GEORGE, *10-18 Air Balloon Road* ST 630 734. In a desktop study this site was found to have been part of an agricultural holding in 1803, with the house at No 20 constructed in c1911 and demolished in 1967. Air Balloon Hill Road itself is probably on the line of the Bitton to Sea Mills Roman road. (BSMR 20009).

Rod Burchill, AAU

ST MICHAEL, *Site of the New Children's Hospital, Upper Maudlin Street.* ST 5875 7359. Archaeological monitoring of groundworks associated with the development of the new Children's Hospital, Upper Maudlin Street revealed that the site was cellared in the 18th and 19th centuries. The cellars had terminated at, or cut into, the natural rock brash. Adjacent to the public highway (ST 58636 73380) was a well, which had been cut some 25m into the underlying bedrock. No dating evidence was found for the well.

Rod Burchill, BaRAS

The Former Seahorse Public House, Upper Maudlin Street, Kingsdown. (BRSMG 83/1996) ST 5859 7333. An Archaeological watching brief was conducted during the construction of the new Children's Hospital for the United Bristol Healthcare Trust. This work followed on from an archaeological evaluation conducted on the site by BaRAS (BaRAS Report 446/1998). The archaeological watching brief revealed that the site had been badly disturbed. The basement of the Seahorse public house was found to be deep, cutting into the natural Mercia mudstone. Underlying the patio, to the rear of the public house, was a substantial deposit of demolition debris associated with the 18th-19th century properties that formerly stood in this area. There were no deposits or features of archaeological significance exposed.

Jayne Pilkington, BaRAS

ST NICHOLAS, *The Naval Volunteer, King Street.* ST 5878 7269. The Naval Volunteer public house is located at 17 and 18 King Street. It is a Grade II* listed building, constructed some time around 1670. A desktop study and survey of the fabric of parts of the building were required as part of the planning and listed building applications for alterations to the external elevation and for internal alterations including the demolition of some walls.

A study of the documentary sources and the standing building showed that the present rear (south) wall of the bar area in 17 King Street and the bar area in 18 King Street was originally the back wall of the outbuildings/warehouses fronting Little King Street. The rear walls of the late-17th-century buildings fronting King Street had been removed during previous alterations to the two premises and now only represented by columns and pillars at the end of the present bar/servery areas in 17 and 18 King Street. The areas

between these columns and pillars and the present rear walls of the bars were originally mainly open courtyards.

With one exception all the walls likely to be demolished in the proposed alterations were shown to be either late-19th or 20th century in date. The present rear dividing wall between 17 and 18 King Street was the 17th/18th century party wall between the courtyards of the two properties.

Reg Jackson, BaRAS

SS PHILIP AND JACOB WITHOUT *Atlas Street.* (CMAG 1997.047) ST 66053 72330. An archaeological watching brief was carried out during groundworks for the construction of a new office complex. The main objective of the watching brief was to obtain samples of pottery from the landfill sequences with the aim of identifying the types of wares being manufactured at the nearby Victoria and Albert Potteries. However, the pottery recovered during the watching brief failed to offer any conclusive proof. The footings of three 19th-century walls shown on the 1904 OS plan were located. No earlier features were noted.

Simon Cox, BaRAS

ST STEPHEN, *Broad Quay.* ST 58610 72715, ST 58629 72720 and ST 58650 72701. Archaeological monitoring of trenches associated with the construction of a new flood relief sewer was undertaken. Only two archaeological features were recorded: a brick-built culvert - a branch off the 19th century Milne's Culvert used to redirect surplus water from the River Frome, and a deposit of rubble stone - Brandon Hill Grit - some 4m below modern ground level (5m AOD). The stone feature, at least 2m deep, was similar in content and construction to the material supporting the footings of the town (Marsh) wall to the east. The feature was too poorly constructed to be the town wall itself. It is possible that it represented the line of the Marsh Wall after its turn to the north beyond the Marsh Street Gate; however, no evidence for its return to meet the Marsh Street Gate was found in the trench to the south.

Rod Burchill, BaRAS

SHIREHAMPTON, *Portway Lower Comprehensive School, Park Road* ST 5355 7672. A desktop study was undertaken in advance of a planning application for the development of the school site.

No known archaeological sites or findspots of artefacts occur within the area of the proposed development. However a number of archaeological finds have previously been made in the vicinity. Of particular importance were the discovery of Palaeolithic artefacts 150m to the south, 300m to the south-west, 300m and 375m to the west, and 150m to the north of the development area. These were mainly hand-axes although the latter find comprised 11 different implements. These were thought to have come from the Second Terrace gravels which lie close to, or possibly even under, the development area. Finds of 2nd century Roman pottery have been made 230m south-west of the school.

Reg Jackson, BaRAS

The Hill Leigh Timber Yard, St Andrew's Road, Avonmouth ST 5163 7874. An evaluation was carried out in the former timber yard on the west side of St Andrew's Road. Three trenches were excavated. In all of these the surface of the underlying field was located at 7.5m AOD. This consisted of a band of sticky black organic material. Below this was a thick layer of alluvium which ranged in colour from a dark grey at the top, through a lighter grey with many patches and flecks of brown staining, to a blue/grey clay at the bottom. One trench was excavated to a depth of 5m AOD. No archaeological features or deposits were observed and no archaeological finds were made.

Reg Jackson, BaRAS

TEMPLE, *Geotechnical Pits, Temple Quay* (BRSMG 92/1996) ST 59600 72600. As part of the infrastructure works for the Temple Quay development site, 42 geotechnical trial pits were excavated. Six of the forty-two geotechnical pits revealed features of potential archaeological interest, post-medieval in date, and surviving at reasonably shallow depths below present ground level. In Trial Pit 1 the timber remains of the possible 18th-19th century harbourside revetment were exposed. In Trial Pit 8 a possible 19th-century kiln structure was exposed and in Trial Pit 21 a possible 18th-19th century culvert. In Trial Pit 23, located directly west of the Portwall, the remains of a structure were uncovered, possibly a cellar, 18th-19th century in date. In Trial Pit 28 the top of a 19th-century wall, possibly related to the demolished railway buildings was revealed. Finally in Trial Pit 42 possible fill was encountered from the ditch associated with the Portwall, containing one sherd of residual Romano-British pottery. The majority of the geotechnical pits exposed layers of dumped demolition, industrial and kiln debris, demonstrating the massive landfill operation that had taken place on the Temple Quay site.

Jayne Pilkington, BaRAS

Temple Way (CMAG 1997.055) ST 59450 72680. An evaluation was commissioned on the site of a proposed hotel off Temple Way. Three trenches were excavated, one of which had been extensively disturbed by 19th-century industrial building. A pit dated to the 13th century and an associated stone surface may have related to the construction of tenter racks for the drying of cloth, as previously identified during excavations at Cart Lane in 1974. The presence of tenter racks in this area is indicated on Millerd's 1673 plan of the City. An east-west running ditch which produced pottery ranging from 13th-15th century in date appeared to delineate the boundary between the tenter racks and the garden areas of tenements to the south as shown on Millerd's and Rocque's plans. This was supported by the evidence for a medieval soil horizon dating from the early-mid 14th century in the evaluation trench to the south. Features cut into this horizon appeared to be the result of cultivation. A later soil horizon, open through to the late-17th century, was also revealed in this trench. The

eastern wall of the 18th/19th-century Temple Church Mission Room was located at the western edge of the trench.

Simon Cox, BaRAS

WESTBURY ON TRYM, Brentry Hospital, Brentry. ST 5767 7860. Archaeological monitoring of the groundworks associated with a new development for St Peter's Hospice in the grounds of Brentry Hospital found no archaeological features or artefacts dating before the early-19th century.

Rod Burchill, BaRAS

Greystoke Avenue, Southmead (CMAG 1997.033) ST 58300 78500. An archaeological watching brief was carried out during the construction of a new retail store. This revealed that much of the site had been reduced to the natural ground level during construction of the previous store. Two undated features were revealed, one of pitched stone which was probably a field drain, the other a rectangular cut in the top of a natural outcrop of rock. No pottery from the site was earlier than the 19th century, suggesting that the two stone features were the result of relatively recent agricultural activity.

Simon Cox, BaRAS

Southmead Baptist Church (BRSMG 07/1996) ST 5866 7834. A watching brief was carried out during the construction of flats on the site of the former Southmead Baptist Church. This work produced 20th-century material and evidence of 20th-century landscaping associated with the construction of the church in the 1930's.

Peter Insole, BaRAS

WHITCHURCH, *Filwood Playing Fields, Knowle West* (CMAG.1997.12) ST 59000 69100. An archaeological field evaluation was undertaken in response to a residential planning application. A geophysical survey of the area was carried out prior to the fieldwork, which revealed anomalies only related to 1980's landscaping. Six trenches were excavated revealing a buried topsoil beneath redeposited natural clay indicating that in this western area of the playing fields the ground surface had been made-up during levelling for football pitches in the 1980's. Excavation of Trench 5 towards the south-western boundary of the field revealed a ditch containing pottery dated to the late-2nd to early-3rd century. This date suggests a possible association with the 2nd-4th century Romano-British occupation, recorded during a rescue excavation on the playing fields in 1982 (see also pp59-73).

Peter Insole, BaRAS

Hengrove Park ST 5900 6800. A desktop study of Hengrove Park found no evidence for landscape use predating the late-18th century. During the present century the site was used as a civil and military airfield including runways, hangars and workshops, dispersal points and administrative buildings.

Rod Burchill, BaRAS

NORTH SOMERSET

BACKWELL, Coles Farm, Backwell (North Somerset 1997.32) ST 49730 69020. An archaeological field evaluation was carried out on the site of a proposed residential development. Four trenches were excavated with only a medieval drain being revealed. Landscaping had taken place on the site in the recent past involving the removal of deposits and the deposition of 0.6m-0.8m of subsoil make-up. The alignment of the drain suggested that any associated features may well lie off-site to the south of the evaluation.

Peter Insole, BaRAS

BANWELL, *Yew Tree Farm, West Wick* ST 3690 6199. An archaeological desktop study for a proposed development at Yew Tree Farm, West Wick found no evidence for the survival of pre-19th-century archaeology. However, the site lies on the North Somerset Levels where an auger survey carried out in 1993 revealed a hidden Romano-British landscape buried beneath up to 1m of alluvial clays.

Rod Burchill, BaRAS

BEDMINSTER, *Ashton Court* (BRSMG 84/1995) ST 558 717. A watching brief during the laying of a pipe line at Ashton Court revealed that 18th- and 19th-century landscaping had removed much of the archaeology to the south of Ashton Court mansion.

Peter Insole, BaRAS

BLEADON, *Whitegate Farm* ST 339 569. Two stages of archaeological evaluation work on this village centre site were carried out in advance of a detailed planning application for residential development. Several prehistoric pits, postholes and ditches were located containing pottery of a preliminary late Bronze Age date and two human inhumations, with complete animal skeletal deposits. This grouping is considered to be an example of a funerary/ritual site. A ditch on the southern half of the site contained medieval pottery and other structural remains, including post-medieval foundations of a barn and other later agricultural buildings.

In the light of these evaluation results a further programme of complete excavation was carried out as the site has been recognised as an important example of Bronze Age to Iron Age transition and is considered to be of National importance. The excavation results are now being collated and analysed and will be published in due course. Prehistoric deposits have been sampled in their entirety, giving a rare opportunity for a comprehensive analysis of artefacts and plant and animal macrofossils, with a guaranteed very high recovery rate. (SMR 40222).

Andrew Young, AAU

WESTON-IN-GORDANO, *Weston Lodge Farm, Valley Road, Portishead.* (North Somerset 1997.284) ST 44100 75100. A desktop study, incorporating the results of a geophysical survey by Stratascan Ltd, was carried out on the

site of a proposed new primary school between Valley Road and Down Road. This indicated that the site lay within an area of possible Romano-British occupation, with nearby archaeological evidence and the geophysical survey both indicating the possible presence of iron smelting. The study also involved the compilation of a brief photographic record of a World War II anti-aircraft battery to the south-east of the study area. This was found to be in a reasonable state of repair, but was in need of clearing and consolidation work if it was to be preserved as a possible educational resource for the school.

Simon Cox, BaRAS

PORTISHEAD, *115 High Street* ST 4678 7590. An evaluation took place in February on land to the rear of property on the High Street, prior to its proposed redevelopment. Five 10m x 2m trenches were excavated although only in one trench, on the western side of the study area, were any archaeological deposits of any significance recorded. This comprised a reddish-brown clayey silt which produced a large amount of 13th/14th-century pottery, mainly local wares. This deposit was interpreted as a buried medieval garden soil which could have been associated with the adjacent medieval plots fronting on to the High Street and which are now occupied by 17th-century cottages.

T Longman, BaRAS

WRINGTON, *the proposed A38 diversion, Bristol International Airport, Lulsgate Bottom* (1997.84) ST 512 650. An environmental assessment was undertaken of a study area along the proposed route of the A38 diversion from the southern edge of Lulsgate Bottom, across the fields east of the main road, to the south-east corner of Bristol International Airport. The desk-based assessment identified two recorded archaeological sites in the fields to the east of the modern A38. They comprise a possible Mesolithic settlement (NSSMR 679) dating from between 6,500-3,500 BC, and a Neolithic flint scatter (NSSMR 625) dating from between 3,500-1,600 BC.

T Longman, BaRAS

YATTON, *Wemberham Lane Roman Villa* ST 405 652. Archaeological observation and recording were conducted during dredging operations by the Environment Agency on the Congresbury Yeo adjacent to the Wemberham Lane Roman Villa Scheduled Ancient Monument. This exercise located two sherds of Romano-British ceramics, but no other evidence. (NSSMR 286).

Andrew Young, AAU

AUST, *St John's Church.* ST 5722 8907. A watching brief was carried out in December during groundworks associated with the laying of an electric cable through the churchyard. The trench was largely machine-excavated and revealed only two deposits, one of which produced several small pieces of disarticulated human bone. There were no other finds.

T Longman, BaRAS

BRADLEY STOKE, *Hawkins Crescent.* (BRSMG 102 & 103/1996) ST 6200 8276/ST 6230 8155. Two archaeological evaluations carried out in December 1996 prior to two adjacent housing developments at Bradley Stoke revealed no significant archaeological features or finds.

Peter Insole, BaRAS

HANHAM ABBOTS, *Hanham Hall Farm, Hanham Hall Hospital, Whittuck's Road, Hanham.* ST 6445 7160. A survey was made of Hanham Hall Farm and its adjoining stables and animal shelter prior to their proposed demolition.

The farm was built on the site of, and incorporated part of, an earlier building which may have been associated with the walled garden immediately to its west. It is suggested that this may have been a garden workshop. The earlier building was shown on the 1843 Tithe map but its date of construction is not known. If the walled garden was contemporary with the construction of Hanham Hall, then the building could possibly be as early as 17th century in date.

The main farmhouse, stables and animal shelter were built as an integral complex sometime after 1843 as the buildings do not appear on the tithe map. They seem to be mid- to late-19th century in date. It should be pointed out that the term 'farmhouse' for this relatively small building is probably a misnomer. It is more likely that the house was occupied by someone who was looking after the horses in the adjoining stables. The farmhouse was in a poor condition and contained no architectural features of note. The stables and animal shelter were in a reasonably sound condition.

Reg Jackson, BaRAS

Hanham Hall Farm. ST 6445 7160. An archaeological field evaluation was carried out on land at Hanham Hall Farm. Eight trenches and a test pit were excavated by machine and hand-digging. The evaluation produced only limited evidence for archaeological deposits within the study area. In Trench 1 a well-preserved stone drain probably dated from the 18th or 19th century. Pennant Sandstone rubble in Trench 4 probably represented a boundary wall.

Rod Burchill, BaRAS

HILLESLEY, *Hillesley Farm, Alderley Road.* ST 768 897. An excavation was conducted between 29 September and 7 November on land to the rear of Hillesley Farm prior to its redevelopment for housing.

An area measuring approximately 1,658m2 was excavated revealing a buried medieval soil and a series of shallow ditches. Both the yellowish-brown buried soil and the ditches produced pottery dating from the 11th century to the late-12th or early-13th century. This landscape has been interpreted as part of a medieval open-field system, which has survived largely due to the land being made over to pasture for the subsequent 600 years or so. A number of pits were also excavated which similarly produced pottery from

the 11th and 12th centuries.

A number of soil samples were taken and these confirmed the cultivation of cereal crops in the local fields in the 11th and 12th centuries such as barley, oats, wheat and rye.

T Longman, BaRAS

HORTON, *Springfield Farm, Vinney Lane.* ST 7420 8545. An archaeological desktop study of Springfield Farm, Vinney Lane was carried out as part of a management agreement under the Countryside Stewardship Scheme. The study identified a number of cropmarks and shallow earthworks. These and the presence of 2nd and 3rd century Romano-British pottery, box-flue tile and pentagonal pennant sandstone rooftile suggested the presence of a previously unknown Romano-British building.

Rod Burchill, BaRAS

IRON ACTON, *Acton Court.* ST 677 842. The footings of a large building 30m south-east of the main house, was revealed during the removal by the contractors of topsoil in the area of the proposed carpark. The building measured 20m x 7m internally and had the same width and two-thirds of the length of the 1535 east range. It was aligned on the outer moat (discovered in 1996) and was set back c5m from its inner edge. Its alignment was noticeably different from the east boundary wall of the mid-1550s south court which ran very close to its south-west corner. The footings of a wide stack projected out from the north-west corner of the building, suggesting it may have been a brew-house and/or bake-house. The structure formed the southern end of a chain of four ancillary buildings, to the east of the main house. These are thought to have been constructed in the late-1530s, replacing the temporary structures erected for Henry VIII's visit. Like the buildings further north, it was probably demolished in the mid-17th century, and its floor was destroyed when the area was transformed into a farmyard.

P Davenport, BAT

OLDLAND, *Warmley. Lower Barrs Court Farmhouse.* ST 651 723. In September 1997 a photographic record of Lower Barrs Court Farmhouse was made prior to, and during, the building's demolition. Although the building had been identified as being of 18th century date with later additions (SSR/AB233/REP1), the possible presence of earlier features as described in the desktop assessment required that a photographic record of the building be made before its demolition, and that the work be monitored in order to record any features of historical or archaeological interest. In the event, no such features were evident. The building was too hazardous to enter, and many of the features that may have proved interesting, such as the roofs and windows, had already collapsed or been removed. Most of the 18th-century outbuildings, which lay to the north and east of the house, along with its earlier landscape setting, had been destroyed by modern development, the result being that its value as a historical feature within the landscape had been virtually lost.

J Blake, JBA

PILNING AND SEVERN BEACH, *ICI Severnside.* ST 5535 8360. A series of projects were undertaken for ICI Estates as part of a programme of mitigation for the development of the Western Approach, Severnside Industrial Park. The site lies off the A403 Aust-Avonmouth road, between the Avlon Works and Seabank power station and the M49 motorway. A desk-based assessment of the area was carried out by Wessex Archaeology in 1995, identifying six sites and the appropriate mitigation measures. The study also included the plotting of aerial photographic data by RCHME, and relevant auger data from the M49 Second Severn Crossing works. The proposal was granted planning consent in 1995, and as the development has proceeded, the mitigation measures have been implemented.

Site 1: Oxhouse (ASMR 2996). A group of earthworks was identified at the north-east end of Dyer's Common, a funnel-shaped common. The site was surveyed and subsequently evaluated in 1996: it was found that the site is a 19th-century structure, comprising a store room, sleeping quarters and a livestock shelter.

Site 2: Edsleigh Farm (ASMR 533), Site 3: Creed's Farm (ASMR 5406). These possible medieval farmsteads have yet to be surveyed and evaluated.

Site 4: Dyer's Farmhouse (ASMR 6514). The standing buildings of Dyer's Farmhouse, at the south-west corner of Dyer's Common, were surveyed by Hill Bield Associates in 1997 prior to dismantling. The building was probably originally a longhouse, and 16th-century beams and joists survive in the passage. It was remodelled or rebuilt in the late 17th and late 19th centuries.

Site 5: cropmark (ASMR 6718). A circular cropmark c20m in diameter, was noted on aerial photographs. Field survey in 1996 showed it to post-date the ridge and furrow in the field, and it is considered likely to be of WW2 date.

Site 6: Ableton Lane (ASMR 9256). The site of a building shown on the 1830 map in the coastal meadow of Appledraw Mead was surveyed in 1996. It was concluded to have been a hay-barn or byre rather than a cottage.

Auger Survey: The M49 Second Severn Crossing Archaeological works included an extensive auger survey undertaken by Wessex Archaeology to locate and map the Iron Age/Roman palaeosol associated with occupation sites on the Level. One of the SSC auger holes (5/30) indicated the presence of the layer within part of the development area, and accordingly further auger survey has been undertaken in 1997 within the new building footprints to check for its presence. None of the buildings overlies the palaeosol. The survey also mapped the buried upper peat horizon, and identified a palaeochannel running north at the north-west part of the site; the extent of the channel was investigated by test-pitting.

Conclusion: The programme of works has done much to establish the development of this part of the Levels. Unlike

the areas to the north and east, there is no indication of stabilised Roman ground surfaces, and it is likely that the settlements found at Farm Lane, Crooks Marsh and Rockingham Farm were 'islands' within a flooded landscape. Although the earthworks on the present ground surface appear to be a preserved medieval landscape, with ridge-and-furrow surrounding a funnel-shaped common around which farmsteads are grouped, the programme of evaluation and survey has shown that occupation on this part of the Level appears to be a post-medieval phenomenon, reflecting the process of enclosure of the common and subsequent improvements to drainage.

Martin Lawler, David Williams, Richard Roberts, Adam Yates, Andrew Marvell, GGAT

The Former Seawall Caravan Site, Severn Beach. (CMAG 1997.032) St 53950 84650. A desktop study was carried out on the site of a proposed new residential development. No documentary evidence of the site prior to the 17th century was found. The field system suggested a post-medieval agrarian landscape with a number of isolated, and subsequently deserted farmsteads. Archaeological evidence suggested there was a potential for sub-alluvial archaeology surviving on the levels. Nearby auger surveys had identified a ridge of land with in-situ prehistoric and Romano-British buried soil horizons extending as far as Severn Beach.

Simon Cox, BaRAS

PUCKLECHURCH, *Pucklechurch to Seabank Pipeline Preliminary Results.* Between September 1996 and August 1997 work was conducted along the route of the 27km Pucklechurch to Seabank Pipeline for Entrepose-Laing JV. The post-excavation analysis of the work is currently under way, with the final report being due for completion in September 1998. The major sites identified were as follows:

Feltham Brook, Pucklechurch. Flint scatters were observed at two locations close to Feltham Brook (ST 709 758 and ST 710 764). These have been described as consisting chiefly of broken flakes, possibly Mesolithic in date (Harding 1997). No evidence of associated features was found at either location during any stage of the work.

North of Dudley Wood, Westerleigh. ST 694 783. Occupation debris from an abandoned settlement believed to date from the 11th-16th centuries (Burchill 1997) was recovered during evaluation work. The settlement is believed to have been sited on a hilltop just to the north of the pipeline route.

Roman Road, Bitton to Berkeley. (SMR 1353). An evaluation trench excavated across the plotted course of this feature (ST 687 786) produced evidence of what are believed to be roadside ditches, but there was no evidence of a road surface or metalling. The ditches ran parallel c15m apart.

Near Idover Wood, Westerleigh. ST 688 796. A quantity of cremated human bone was recovered from within five small pits. The pits may have been enclosed by a shallow curvilinear gully which appeared to be earlier than an adjacent rubble-filled ditch, the function of which remains unclear. All ceramic and other artefacts from the site are believed to date from the Romano-British period.

River Frome, adjacent to Cog Mill Farm. ST 667 829. 250 pieces of worked flint were recovered during fieldwalking and evaluation work in a field to the east of the River Frome. These appear to be of Mesolithic date (Harding 1997). No evidence of associated features could be found during any stage of the work.

Roman Road, Rangeworthy to Redwick. (SMR 1478). No evidence of this feature could be found during fieldwork (ST 597 850 and ST 638 852) and an investigation of documentary sources (Quinnell 1961) appears to have found sufficient evidence to suggest the removal of this feature from the SMR.

Tockington Park Farm. ST 627 855. Investigation of a small enclosure identified during a geophysical survey revealed part of a cemetery close to the known Roman villa at Tockington Park Farm (SMR 1472). Five inhumations were excavated, with partial remains of a sixth individual recovered from a ditch. The graves were aligned north-south, with the head at the north. There were no surviving grave goods other than iron nails from two pairs of hob-nailed boots. The graves were evenly spaced within the enclosure ditches. Evidence provided by burial practices and residual ceramics suggest the ditches and inhumations date from the late 4th or early 5th century.

Farm Lane to Crooks Marsh. The presence of a palaeosol, believed to date from the Iron Age/Romano-British period was observed in the area between Crooks Marsh and Farm Lane at approximately 4.5m AOD. This was cut by occasional large palaeochannels, but seemed otherwise to be fairly continuous.

Farm Lane. ST 564 825. Evidence of a substantial settlement sited on an island of Keuper Marl at Farm Lane was indicated by the presence of ditches and part of a burnt timber structure. These features appear to date from the late 2nd or early 3rd century (Tyres pers comm). A substantial quantity (c44kg) of Romano-British ceramic material was recovered from the ditch fills. A geophysical survey of an unexcavated area (ST 564 824) found possible indications of four circular ditches, c9-11m in diameter. These may represent roundhouses similar to the Iron Age features excavated at Hallen Marsh (Lawler 1992). In addition to the possible Iron Age/Romano-British palaeosol previously mentioned, a second earlier palaeosol was identified, with the presence of worked flint within the horizon suggesting that it is of prehistoric date.

Crooks Marsh. ST 539 824. Three ditches, possibly indicative of a Romano-British field system were found beneath less than 0.5m of alluvium, with preliminary assessment of ceramics (Tyres, pers comm) providing a date of late 3rd-early 4th century. This would appear to correspond with previous observations (Everton and Everton 1981, SMR 4896) of similar features nearby. The quantity of ceramics recovered and the presence of quern stones within the assemblage suggests the existence of a

substantial settlement in the vicinity.

Bridget McGill,-McGAC

Parkfield South Colliery. ST 683 772. A desktop study was carried out to facilitate clearance and archaeological recording work on the site of the disused Parkfield South Colliery. Parkfield South Colliery was developed by Handel Cossham and partners from Brandyu Bottom Pit after 1850 and was worked on until closure in 1936. It comprised two shafts, South Pit and New Pit, associated pithead buildings with a railway siding on to the closely adjacent Bristol and Birmingham (later LMS) line. This complex formed part of the Parkfield Collieries and were worked in co-operation. Two engine houses, a chimney and a horizontal winding house survive. Clearance of trees, scrub and undergrowth enabled the identification of the buildings to be clarified. It is intended that a full descriptive and photographic survey of the site will be carried out. (SMR 11056)

Rod Burchill, AAU

THORNBURY, *The Old Forge, Stafford Crescent..* (CMAG 1997/46), ST 6374 9828. A desktop assessment and standing building survey (RCHM Level 3) was conducted on the Old Forge building, between 30 September-27 October 1997, following an intended proposal to erect six dwellings on the site. An evaluation was conducted on the site by BaRAS in December 1994. The site is located in the north-east of Thornbury, within the planned medieval town (SGSMR 10381), behind the properties of The Plain and Castle Street. The Forge is one of two surviving reasonably intact in the town of Thornbury. It appeared from the documentary evidence and from the evaluation that the site was a former burgage plot used as scrubland today and previously a garden, orchard, and then pasture. The building survey and documentary research revealed that the earliest and most significant phase of the Forge building is the lower section of the northern gable end which was possibly the remains of a medieval boundary wall, later incorporated into the construction of the first phase of the Forge building c1900.

Jayne Pilkington, BaRAS

The Vicarage, Castle Street. ST 6636 9051. An intensive watching brief was carried out on a site fronting the west side of Castle Street during the excavation of foundation and service trenches for the new vicarage. This followed an evaluation of the site in May 1995 (BAA 13, 90-1).

The evidence for the earliest phase of occupation were the fragmentary remains of occupation layers, possible post holes and a number of shallow pits, dated by the pottery found within their fills to the 11th-12th centuries. Unfortunately, it was not possible to date the pottery more accurately so that while some of the features may represent pre-Conquest or late-Saxon activity on the site, this cannot be confirmed by the dating evidence available.

The next phase of occupation was shown by an occupation layer and several shallow pits dating from the mid/late-13th century to the mid-14th century. Again the dating of the pottery was not sufficiently accurate to confirm that there was a break in occupation on the site between the end of the 12th century and the mid-13th century. The pottery evidence does not indicate occupation continuing after the mid-14th century. The apparent abandonment of the site would correspond with the known shift of focus away from the area around the castle and church to the present centre of town, caused by the establishment of the new borough in the mid-13th century.

It must be assumed that after the 14th century the site was used for agricultural purposes as the next archaeological evidence for use of the site does not occur until the 17th century when a deep quarry pit was cut into the bedrock. The site later became a garden.

Reg Jackson, BaRAS

YATE, *Land to the rear of the White Lion Public House.* ST 713 826. A watching brief linked to the removal of a temporary builders compound revealed very little, principally because it should have been attached to works associated with the laying out of the compound. A JCB relocating a spoil tip revealed two thirds of a large stone apple press which had presumably been disturbed when the site was originally cleared.

P Davenport, BAT

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