BRISTOL & AVON ARCHAEOLOGY

Volume 16

BRISTOL AND AVON ARCHAEOLOGY 1999

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Cover: T. S. Rowbotham's 1826 watercolour of Limekiln Dock from the south, with Brandon Hill in the background. Braikenridge Collection, Bristol City Museum and Art Gallery.

Typeset by Bristol and Region Archaeological Services
Design by Ann Linge
Printed by Printing and Stationery, 9 Willway Street, Bedminster, Bristol
December, 2000

ISSN 0263 1091

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

A ROMANO-BRITISH SITE AT LAWRENCE WESTON, BRISTOL, 1995

by Eric Boore

SUMMARY

"And yet there should be no combination of events for which the wit of man cannot conceive an explanation. Simply as a mental exercise, without any assertion that it is true, let me indicate a possible line of thought. It is, I admit, mere imagination; but how often is imagination the mother of truth?" - The Valley of Fear (1915), Arthur Conan Doyle.

Archaeological excavations took place throughout the summer of 1995 on a site at Lawrence Weston, Bristol in advance of redevelopment for housing.

The earliest occupation was represented by a substantial assemblage of worked flints dating to the Mesolithic, Neolithic and Bronze Age periods. Pottery of the Late Bronze Age was also recorded. The main occupation on site was represented by a series of quarry pits of Romano-British date. The quarrying was carried out for the extraction of the natural Dolomitic Conglomerate and Carboniferous Limestone for use as mortar and probably also for road and building purposes. The remains of at least four infant burials were found within the quarry area.

In the south-west corner of the site the 'agger' of a road was recorded and may represent part of the route between Sea Mills and Gloucester (Margary 541) or an access route from the quarries.

The site declined in the fourth century with no further quarrying operations and reverted to agricultural use during the medieval and post-medieval periods. The area was subsequently landscaped for recreational usage as part of the suburban redevelopment of Lawrence Weston from the 1950's onwards.

INTRODUCTION

An open area excavation was carried out throughout the summer of 1995 on a site between De Clifford Road, Long Cross and Kings Weston Road, Lawrence Weston (ST 5543 7852) in advance of redevelopment of the area for housing (Fig.1). A desktop study of this area and field evaluation in autumn 1994 was followed by the excavation which was undertaken on behalf of the Housing Services Directorate, Development and Renewal Section, Bristol City Council by Bristol and Region Archaeological Services. This was required to fulfil the terms and conditions of D.O.E Planning Policy Guidance Note 16 (PPG 16).

The site is surrounded by many earlier discoveries of structures and finds which date to the prehistoric period (Grinsell 1970). West of the site on Kings Weston Hill are a group of round barrows which are of Bronze Age/Iron Age

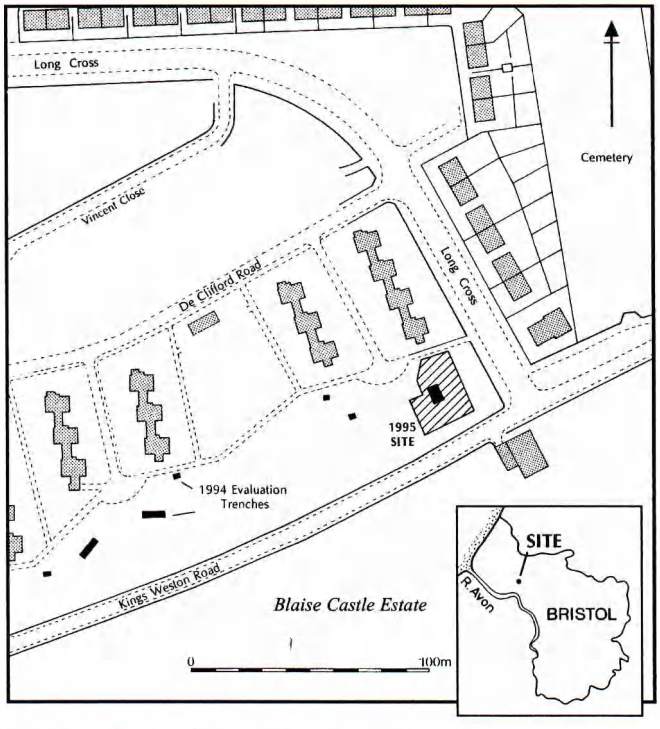

Fig.1 Site and trench location plan

date (Grinsell 1987, 33 and Darvill and Grinsell 1989, 70). The former existence of other barrows in the Shirehampton area to the south may be reflected in field names and exist still in present-day road names like Old Barrow Hill and Barrowmead (Bryant 1993). The remains of a megalithic monument of the Neolithic period survive in a garden at Druid Hill, Stoke Bishop (Smith 1989, 27). A late Bronze Age Hoard, including socketed axes, was found on Kings Weston Hill (Grinsell 1987, 30, Fig 3.9) and the Iron Age hill-fort at Blaise Castle is located c200m to the south (Grinsell 1970, 11 and Burrow 1987, 45).

The area also contains numerous discoveries of finds and sites of the Romano-British period particularly, along the line of Long Cross immediately to the northwest of the site (Russell and Williams 1984, 18-26 and Parker 1984, 27-35). The remains of a third century villa are still preserved at the west end of Long Cross (Boon 1950) and a late Roman temple was subsequently built within the hill-fort to the south. Coins and other finds in the hill-fort area cover the full range of Roman occupation (Bartlett 1919, 163 and Rahtz 1957, 147) (ASMR 775, 777 and 3970). The main Roman route between Gloucester, Sea Mills and Bath lies to the east (Margary 1955, 126). Aerial photographs show

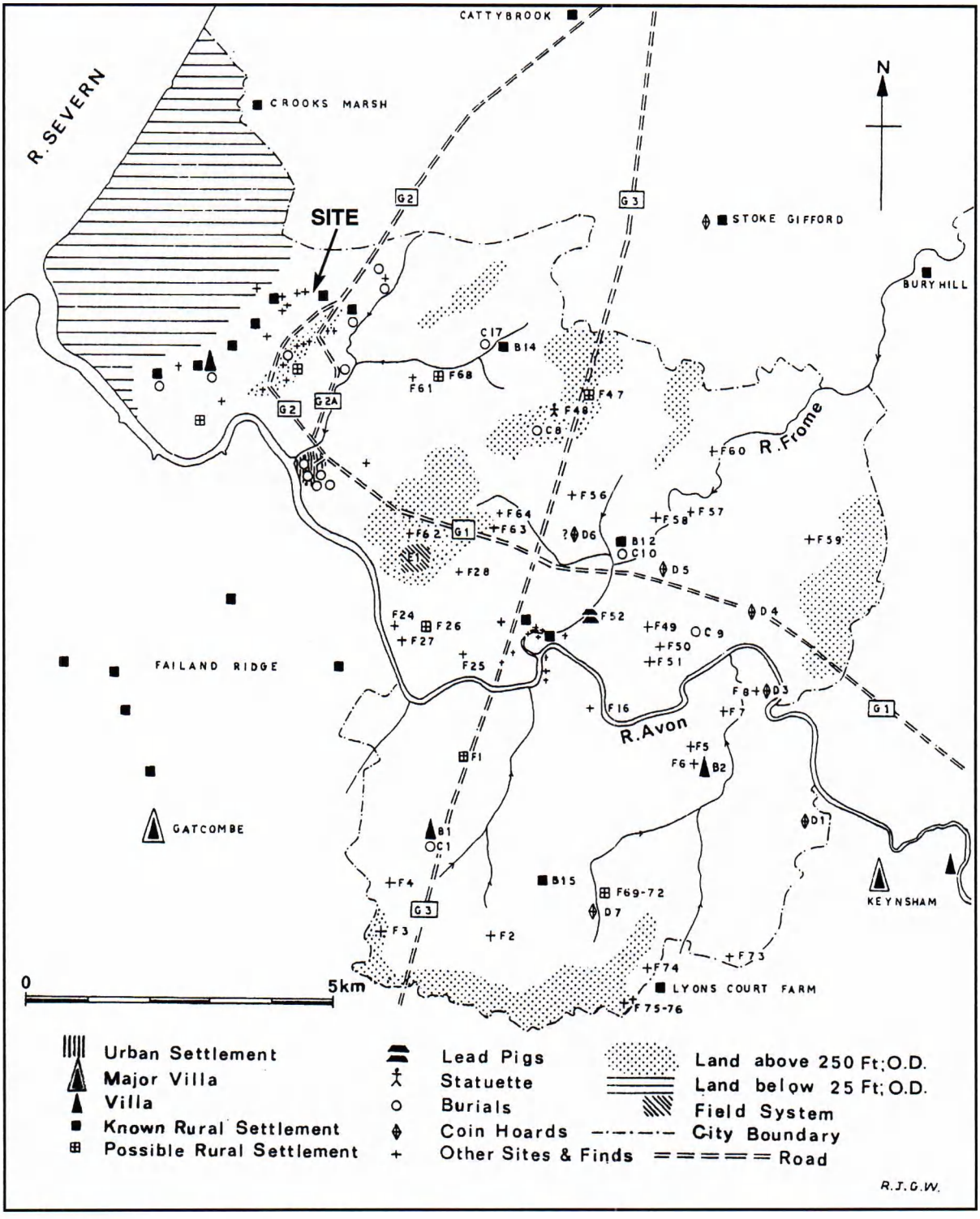

Fig.2 Romano-British sites in the Bristol area

possible medieval lynchets to the north of the area (ASMR 776) and a hoard of gold and silver coins which dates to c1280-1399 were discovered to the west of the site (ASMR 3962) (Williams 1994, 5).

It was hoped that the excavation would contribute information, not only about the Romano-British occupation on site, but also hopefully enhance the picture of the exploitation of the countryside and increase our understanding of rural life in the Romano-British period, with its focus around the villa and its estate and associated industries fed by the interconnecting road systems.

All site records, plans, photographs, finds and other relevant sources and archive will be placed in the care of Bristol City Museum and Art Gallery with the Accession Number BRSMG 28/1995.

GEOLOGY by Roger Clark

On the southern side of the site is massively-bedded Carboniferous Clifton Down Limestone, grey and shot through with bright red iron staining, dipping southwards at a high angle (55-60°). This is the exhumed Triassic land surface, a desert topography of exposed rounded limestone with fissures weathered out along the bedding and to a lesser extent along jointing. Yellow Triassic Dolomitic Conglomerate lies with marked unconformity across the Carboniferous rock, dipping gently northwards. It fills the depressions in the Triassic surface right across the site and forms the infill of a pair of long narrow more-or-less parallel fissures that run east-west across the southern edge. Above the yellow bed is a more massive bed of a pale pink colour, with a fairly uniform thickness of about c0.4m. Several sets of jointing in this bed have been picked out by weathering and, exploiting the joints, blocks seem to have been prised out in a quarrying operation. The Dolomitic Conglomerate is fossilised scree and desert flash flood deposits that developed on the margins of highlands during the Triassic Period and thus contain pebbles of the rocks that comprised the Triassic hills (mainly Carboniferous limestones and sandstones). Away from the hills, the conglomerate passes laterally into finer-grained deposits laid down in the lowland basins of the Mercia Mudstone ('Keuper Marl'). Once the uplands had been eroded away and buried in their own debris, the mudstone was deposited right across the top; a remnant of this mudstone cover is the hill of Moorgrove Wood opposite the site.

Geological samples were collected from all areas of the site as a reference collection of the local geology, and as a record of the stone extracted during the quarrying activity in the Romano-British period. There were many fragments of Pennant Sandstone, several of which contained traces of burning. They presumably represent demolition debris from a contemporary settlement.

ACKNOWLEDGEMENTS

BaRAS is most grateful to Ms S Taylor, T Isbell and D Garland and colleagues of Bristol City Council for their assistance and for allowing storage facilities at the Lawrence Weston Neighbourhood Housing Office. Development plans were also kindly supplied by Ms L Martin of Quattro Designs Limited.

I am especially indebted to all the contributors to the report for their specialist sections on the finds, to Dick Broomhead for his assistance in analysing the coarseware pottery and identifying fabrics in the Type Series, in particular with the Congresbury wares, and to Roger Clark, Curator of Geology at Bristol City Museum and Art Gallery for his information and discussions about the site geology, stone object identifications, and for his help with many other aspects of the 1995 excavations and to Ms G Heavens for continuing support and encouragement.

The excavations would not have been accomplished without the combined efforts of a small excavation team including Peter Insole, Site Supervisor, David Wicks, Frank Coyne, Tom Brogden and Steve Newman with support from Andy Clark and Tim Hallam and the generous help from many volunteers, particularly Dennis Cootes and Elizabeth Chappell and grateful thanks are extended to Adam Murray and Ron Clifford for sweeping the spoil heap with their metal detectors. Joseph Harvey and Daniel Cull, both Work Experience placements, contributed both enthusiasm and considerable effort which was much appreciated. For both on-site and post-excavation conservation of finds I am grateful to Jeremy Hutchings and Debbie Forkes who undertook most of the laboratory work which was completed by Heather Berns and Amanda Wallace then BaRAS conservator.

Bristol and Region Archaeological Services are most grateful for the documentary information provided by David Evans, Sites and Monuments Records Officer for Avon and also to the staff of Bristol Record Office, the Reference Section of the Central Library, Bristol and to the Library of Bristol University for their help and assistance. I am particularly grateful to Dr A J Parker at Bristol University and David Dawson, Somerset County Museums Officer for their general help and support, and for their invaluable comments on the site report. Any remaining omissions or errors are the responsibility of the writer.

The report was typed by Rosie Clarke and Ann Linge, who also carried out the illustration of the plans and finds.

THE EXCAVATIONS

The site was located at the east end of an open area of grass-covered ground. It was used as a leisure and recreational area for the local residential houses and flats constructed in the 1950's and 1960's as part of the Lawrence Weston Estate urban development. The area lies on the brow of a hill at 55.5m OD on an outcrop of Dolomitic Conglomerate overlying Clifton Down Carboniferous Limestone. The house and estate of Blaise Castle now used as a Social History Museum and leisure area lies to the south. To the north and west, the ground reduces in level to 9.0m OD before meeting the aluvial flood plane between the river Avon and its confluence with the Severn estuary. The topography and present-day use of the area are further described in Williams (1994).

The northern boundary of the site was represented by the pathways and access roads which service the houses and flats which front on to De Clifford Road. To the south lies Kings Weston Road and to the east Long Cross. Further west the recreational area is bisected by Lawrence Weston Road (Fig.1).

An archaeological evaluation which was carried out in November 1994 throughout the leisure area, revealed evidence for archaeological deposits spanning the Roman period. This occupation was concentrated at the eastern end of the site (Fig.1). The evaluation also established that the present-day landscaped surface consisted of a modern overburden of turf and humic soil for a depth of 0.2-0.4m (Boore 1994, 7).

An area of 500 sq.m. was laid out for excavation. The

dimensions of the area were determined by the outline of the proposed development, however, the excavation trench was limited on the north and the west by the need to maintain public access and the presence of existing trees. The site of the earlier evaluation trench occupied the central area of the excavation (Fig.1).

The latest turf and subsoil layers were removed by a mechanical excavator and the area was then excavated manually and all features recorded at a scale of 1:10 or 1:20. The major part of the site was excavated to the level of the natural bedrock. The accumulating spoil heap was swept regularly with a metal detector.

After machining, the site was subdivided into a 5 sq.m grid for reference and surveying purposes. The L-shaped area was then subdivided into four sub-areas, A to D. The south-west quadrant occupied Area A, the south-east Area B, the north-west Area C and north-east Area D. This subdivision was initially undertaken to aid recording and location of finds, particularly during the post-machining clearance operations which represented the post-Roman Period V occupation. The site recording was carried out according to the single context system adopted by BaRAS.

PERIOD I - MESOLITHIC TO BRONZE AGE (10,000-500 BC)

There were no surviving features which could be assigned to this period. However the site did produce 86 flint and chert objects which is a significant concentration within a relatively small and shallow area. In addition there were two body sherds of pottery which were very similar in fabric to domestic pottery found on a Middle Bronze Age settlement site at Poundisford Park near Taunton in Somerset. The pottery on that site was dated to the early Middle Bronze Age, c1500-1200 BC (pers comm G L Good). The pottery was found in a residual context, (210) as were all of the worked flint objects. It is difficult to determine if these prehistoric artefacts represent casual losses or material which had been displaced by subsequent later disturbance especially considering the shallow nature of succeeding occupation.

The area of Blaise Castle Woods has produced microliths from the Mesolithic period onwards (Williams 1994, 5, and Burchill 1994, 4), and a Late Bronze Age hoard (c1100-550 BC) which included socketed axes, was found on Kings Weston Hill (Grinsell 1987, 30, Fig 3.9). A group of round barrows on Kings Weston Hill are attributed to the Late Bronze Age or Early Iron Age (Grinsell 1987, 33).

The lack of prehistoric features on the site suggests a high probability that there was no settled occupation in this period. However the occurrence of both pottery and the quantity of flint finds is evidence for prehistoric activity within the area, perhaps located within the known settlement pattern to the south in the area of Blaise Castle hill-fort, and the wooded area to the west, extending to Kings Weston Hill. A circular earthwork and a small univallate enclosure still survive in a clearing within the wooded area between Kings Weston Hill and the Iron Age hill-fort to the east. Excavations on the earthworks in 1956 suggest they were contemporary with the hill-fort (Grinsell 1970, 22).

PERIOD II - c.LATE IRON AGE TO EARLY ROMAN

The early quarries (100 BC-2nd century AD) (Fig.3)

The main activity in Period II was the extraction of local stone from a group of small quarry pits. The dating for the beginning of this small-scale quarrying is complicated by the lack of contemporary stratigraphy and the source of the material used to backfill the quarries.

The bedrock consisted of yellow and pink Triassic Dolomitic Conglomerate overlying Carboniferous Clifton Down Limestone. The southern half of the site, in Areas A and B, lay along a more or less consistent flat plain exposing a scree of yellow and red Dolomitic Conglomerate only 0.1m to 0.6m below the modern surface. The scree varied in thickness from 0.05m to 0.2m. There were frequent outcrops of yellow and pink Dolomitic Conglomerate which had weathered into blocks. The scree deposits sloped to the north and east, presumably following the underlying deposits of Carboniferous Limestone.

There were 14 fairly small quarry pits recorded throughout the site. The main concentrations were found in Area D and along the south section in Areas A and B (Fig.3). The pits held very similar deposits of dark brown slightly clayey soil, often containing evidence of burnt material mixed with fragments of Dolomitic Conglomerate, limestone, sandstones and concentrations of red iron oxide. The pits in Area D were intersecting, which combined with their uniform and indistinguishable later deposits suggested they were both contemporary quarrying operations and subsequently backfilled at the same time. There was no evidence of primary silting suggesting that the small quarries in this area did not remain open for a long period prior to their backfilling.

All of the pits contained ceramic finds and animal bone. The pits in Area D contained other more high-status objects in an almost cluster-like location and were associated with human neonatal remains. The animal bone is described as 'classically the waste parts from butchery' (G Barber - animal bone report archive). The dating of the pits is complicated by the mixed period finds associated with their backfilled deposits (see below Period III); however, the pits recorded in Period II are stratigraphically the earliest features on the site, containing late Iron Age-early Romano-British pottery in their primary deposits. Brooches found in the Area D pits may also support an early Romano-British date range for the excavation of the pits and their initial backfilling.

It is clear the pits resulted from the extraction of the Dolomitic Conglomerate probably for use as building stone, road metalling, or as a lime substitute in mortar (Bennett 1985, 9) although the underlying beds of Carboniferous Limestone would, after crushing and burning, have provided a ready source of lime. Limestone quarries of more recent date occurred in the wooded Greenhill Plantation to

Plate 1 Beginning of the excavation. Removing the subsoil deposits of Period V, looking north

the west and the woods to the south are known as Limekiln Wood. Furthermore the local Dolomitic Conglomerate was used for building the Kings Weston Roman villa (Smith 1950, 56) and also in the early eighteenth century at King's Weston House built by Vanbrugh. However it is probable that the sources for both of these buildings would have been closer to their actual sites. The late Roman Temple remains within the Iron Age hillfort at Blaise Castle also appear to have been constructed of the local limestone (Bartlett 1918-19, 165 and Rahtz 1957, 150).

The extent of the quarries in Area D, their shallow dimensions and irregular profiles perhaps suggests that their main purpose was for providing material to be used as mortar, road or floor make-up (see Period IV below). However their very presence may be seen as an indication of the existence of buildings or a small settlement not too far away. This is supported in part by the lack of primary silting within the excavated quarries and the intentional backfilling with industrial debris, domestic rubbish and butchers' or kitchen waste, probably deriving from the same settlement which initially required the stone and which carried out this small-scale quarrying. The reinstatement of the area may also be relevant for its subsequent occupation (Period IV). Similar small-scale quarrying to provide material for mortar or make-up for a contemporary settlement also occurred at Sea Mills on the edge of the Roman settlement of Abonae and was dated there to the early Roman period (see Areas A and D in Bennett 1985, 9 and 18).

The quarrying in Area D included both excavations of the shallow scree deposits (151, 193 and 219), and more extensive deeper but irregular excavation with intersecting features (167, 182, 185 and 196). These quarry pits c1.5 to 3.0m wide, varied in depth from 0.4m to 0.8m. The deposits of Dolomitic Conglomerate in pits (182 and 167) contained concentrations of Carboniferous Limestone fragments and calcite crystals and veins, and may reflect concentrated extraction of these deposits to obtain the lime for mortar.

A further group of pits (187, 189 to 191) were revealed along the line of the south section (Fig.3). They were only partially excavated but appear to have been fairly shallow scoops, up to 0.4m in depth, and were also for the extraction of the limestone-rich Dolomitic Conglomerate. Those in Areas A and B measured 2.4m by 1.5m by 0.45m. The edge of a probable small quarry pit in Area C, (146), was also partially excavated.

Similar quarrying activities and other methods of stone extraction took place on site at a later period (see Periods IVa and IVb).

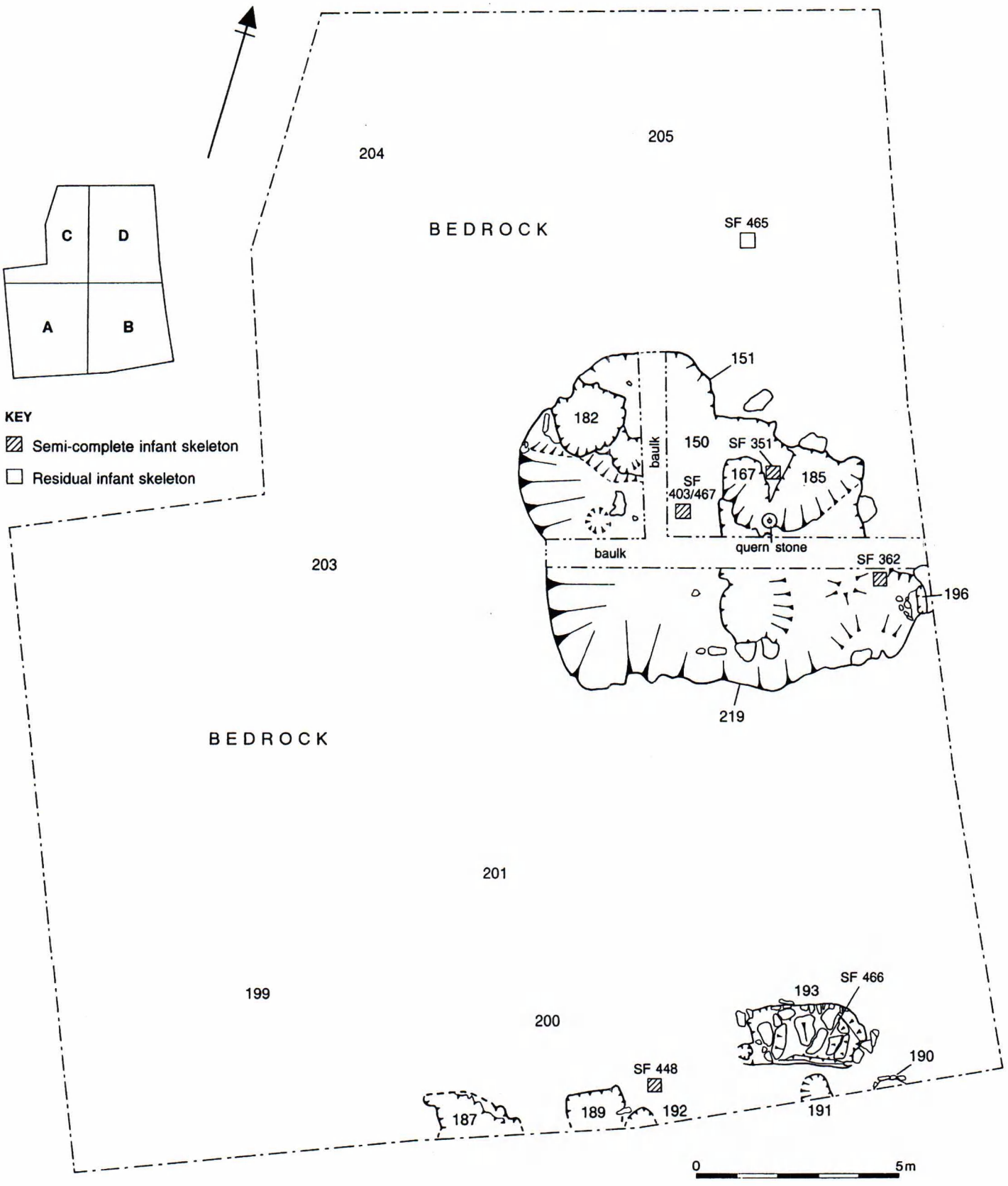

Fig.3 Plan of the quarry pits in Period II and the burials of Period III

Plate 2 Total excavation of the north half of the site, Areas C and D, showing quarries 103, 182, 167 and 185

PERIOD III - ROMANO-BRITISH C.1ST-2ND CENTURY AD

The quarries as rubbish pits and the infant burials (Figs. 3 and 4)

Period III occupation consists of the reinstatement of Areas A and D quarry pits through their backfilling with industrial debris, domestic rubbish and human infant remains.

The quarry-pit features revealed along the line of the south section, (187 to 190) below the road make-up, (19) and the cobble track area to the east, (32) (Fig.4), were only partially excavated as they continued south into the section beyond the area of excavation. They all contained a uniform fill of reddish brown silty and slightly clayey soil with fragments of Dolomitic Conglomerate and limestone overlying the Carboniferous Limestone bedrock. This area also contained deposits of red Triassic sandstone and concentrations of red iron oxide. Contexts 190 to 192 may represent a line of post-pits, as stone packing (164) clearly survived within feature 190, and typical v-shaped profiles were revealed in (164) and (165) for features (190) and (191) respectively (Fig.3). Iron Age, later Roman pottery and animal bone occurred in these features.

The cobbled area (32) and road make-up (19) to the west overlay a line of brown silty soil (161A) which sealed the Period II features and contained an almost complete infant skeleton SF 448. The shallow quarry pit (163) also contained a neonatal femur SF 466 (see Fig.7). To the north of this group of shallow quarry pits and post-holes and east of an outcrop of Carboniferous Limestone, (223), there was a shallow quarry scoop 2.4m by 1.5m by 0.45m. This feature, (193), had resulted from the excavation of the Dolomitic Conglomerate by quarrying along the plain of the underlying Carboniferous Limestone bedrock.

In Area D quarrying of the shallow yellow Dolomitic Conglomerate scree deposits (151 and 219), followed the natural slope north of the underlying more massively bedded pale pink conglomerate (205). There were four contemporary deeper cuts within this area, (151, 167, 182 and 185). Pit 182 to the west measured 3.0m by 2.8m by 0.6m and was irregular in profile. The stepped internal edges probably reflected piecemeal extraction of small lumps of conglomerate which were presumably crushed and burnt elsewhere to extract the lime. The earliest fill of this feature was a dark brown and black clayey silt, (194), 0.12m in depth, which contained both Iron Age and Black Burnished ware pottery, animal bone and burnt bone. This deposit, which was found in many of the quarry pits, might be a residue from burning the extracted boulders to break stone into smaller fragments or even to loosen the bedrock itself and facilitate extraction of the stone. The upper fills

consisted of brown silty soil with many fragments of conglomerate, (148), and a dark brown silty soil containing larger, irregular stone fragments, (181). The latter deposit lay on a tip line with the material having been pitched into the quarry from the north. Both deposits contained early Romano-British pottery and animal bone including burnt bone. Also from this fill came flint, iron nails, and a shale armlet for an infant, SF 364. The rubble and brown soil deposit lay below a shallow layer of dark brown clayey soil which contained much charcoal and dark brown/black silty material, (150). This deposit extended east over quarry pits (167) and (185) and also levelled off the quarried area for the later cobbled surface (141) and (145) of Period IV.

Quarry pits (167) and (185) were intercutting and also internally stepped and lay c.2.0m to the east of pit (182). The backfilling of both pits was similar to pit (182), with primary deposits of dark brown/black silty soil, ash and charcoal, (166) and (173) and later deposits of brown soil and fragments of Dolomitic Conglomerate, (184). This layer overlay both features and was contemporary with Context 150. The environmental analysis of samples from (173) and quarry pit 75 from later Period IVa, suggested that the charred cereal remains were subject to burning before their final deposition in the quarry pits. This interpretation, suggesting that the quarry deposits were redeposited, is also supported by the abraded nature of much of the Romano-British coarse pottery found in the pits and the fragmentary and worn character of the animal bone.

In addition to animal bone and pottery the later deposits within the quarry pits, (150), (158) and (173), contained numerous other finds. Context 150 included a lathe-turned bone handle or decorative fitting, a copper alloy armlet, a Trumpet brooch complete with its working pin, a large circular lead ingot or weight, and 8 coins. The coins were late 3rd century Barbarous Radiates and a coin of Constantine II (337-40 AD). Also found were the remains of two semi-complete neonatal human skeletons, SF 403/467 in Context 150, and SF 351 in Context 184, which initially did not appear to lie in purpose-cut graves. It was impossible to determine whether these remains were originally articulated though they did occur in close proximity to each other. SF 403/467 was surrounded by the cluster of small finds described above (Fig.7).

The earliest deposit in pit 167/185 was a black silt layer, c.0.2m to 0.6m in depth, (166) and (173). Context 166 contained a Thealby type bow brooch,dated to the second century, a flint blade fragment, a steelyard lead weight, and iron objects including nails, a knife blade fragment, and a small iron chisel. In Context 173 was a complete lower stone of a rotary quern, of quartz conglomerate which was found face up (Fig.3), and a sherd of poppy-head decoration of Medway/Upchurch type ware of late first-early second century date.

Quarry pit cuts 167 and 185 represent the same feature. Their irregular character was determined by the unconformity of the Dolomitic Conglomerate natural and the piecemeal extraction methods. The quarries in Area D probably represent a fairly short period of activity, presumably determined by the limited volume of stone required at the time. The small quarries were then backfilled with industrial and domestic rubbish from an adjacent settlement after quarrying operations had ceased. This may have occurred, in part because of subsequent development, when a road or track and other contemporary features were constructed further to the west and where areas of open pot-holes and quarry pits were not desirable.

The range of the finds collectively represented a considerable timespan from the late Iron Age to the third century AD. This may be explained in part by three contributory factors. Firstly it is clear from the weathered nature of the animal bone and the abraded and mixed assemblage of coarsewares that much of this material was originally deposited elsewhere, perhaps on a temporary midden heap or dump. The subsequent redeposition of this waste would cause a high degree of mixing of the dateable finds within the backfilled features (see below Skeleton SF 351).

Secondly, the subsequent activity may have disturbed the lower levels allowing for later material to have found its way into the earlier deposits which were probably subsiding and contracting within the quarries. Thirdly, the shallow nature of the bedrock overall and the subsequent landscaping and other disturbances including ground water could have caused disruption and contamination to the underlying earlier levels. Strategraphically the quarry pits in Areas D and A are the earliest features on the site. It is therefore suggested that the original quarrying took place probably some time in the first century AD, and that the backfilling of the disused pits and levelling up of the area continued into the second century. Intrusive third century finds from the succeeding occupation occurred in the upper levels of the quarried areas.

The infant skeleton, SF 351 in pit fill 184, was probably originally an articulated burial. The missing parts of the skeleton may have decayed naturally or been disturbed by small animal activity. The gradual settling of the contents of the quarry deposits and the subsequent occupation would all have contributed to displacement of the skeletal remains. These conditions would also have made it difficult to recognise a shallow purpose-cut grave. It is not possible to say whether the infants were deliberately interred within this area of quarries or whether they were the remains of disposed-of stillborn or premature deaths soon after birth. Both adult and child interments were found in the quarry pits at Sea Mills, where they were described as 'illicit burials', perhaps because they had died from contagious disease, and are dated to the second century (Bennett 1985, 26). Neonatal remains were also found in association with adult inhumations at Great Yard in Ilchester, possibly in rubbish pit features (pers comm R Broomhead). The apparently casual disposal of very young infants is not unknown (pers comm G Barber). It is intriguing and perhaps not just coincidental, that interment SF 403 appears to be surrounded by some high status objects, particularly the

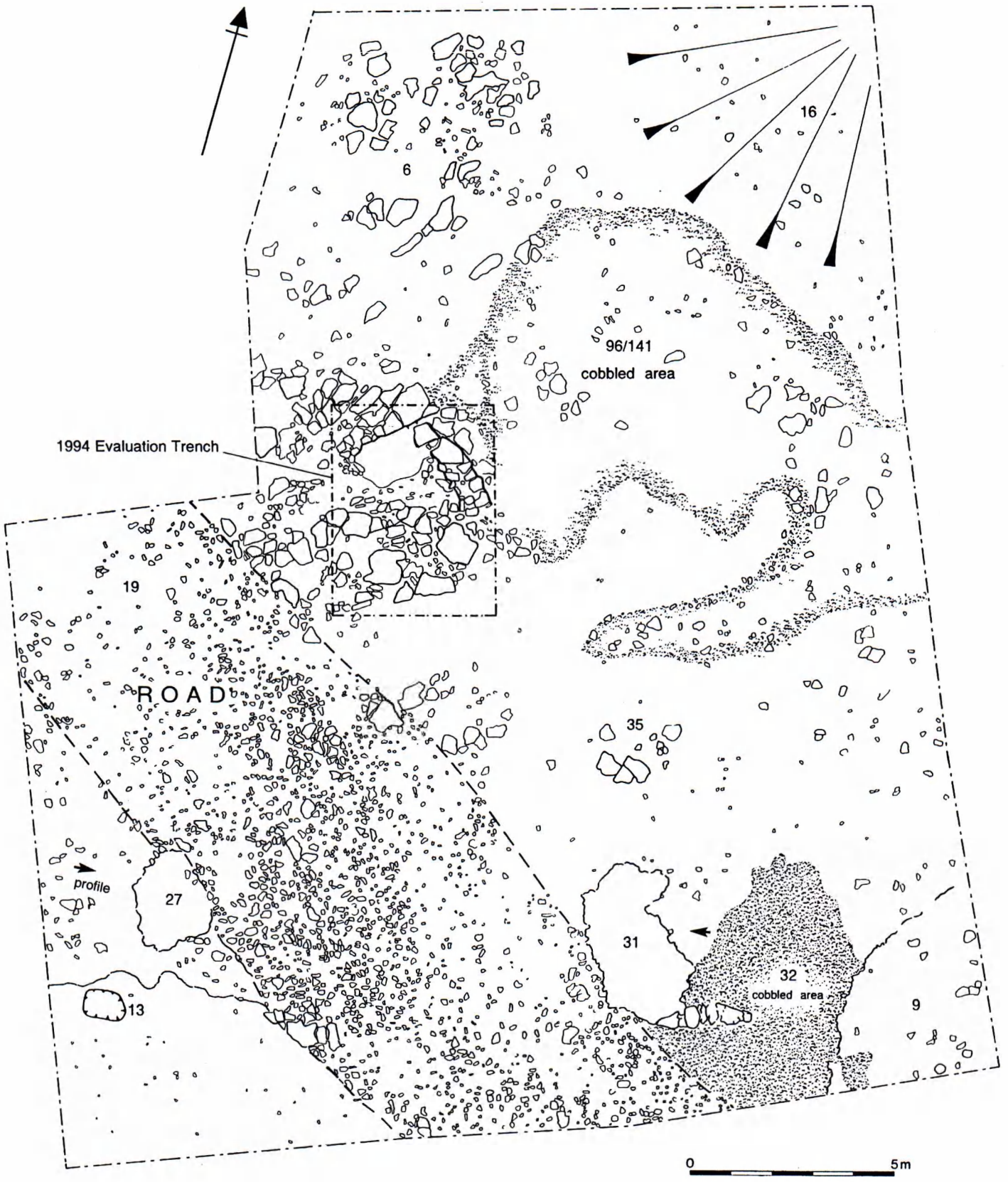

Fig.4 Plan of the cobbled area 9, and features 13 and 35, overlying Period IVa features

Fig.4.1 Profile across the road (19), and quarry pits 31 and 27 (scale as above)

intact trumpet brooch SF 240, and the copper alloy armlet for a child. The skeletal remains did not exhibit the same fragmentary or weathered nature as that shown on the animal bones. It is suggested therefore that SF 351, SF 362, SF 403/467 and SF 448 were deliberately interred on the site, probably with grave goods in shallow graves. Most of the human bone was not recognised until the post-excavation analysis of the finds. The isolated neonatal human bone may be the sole surviving remains of separate interments or disturbed fragments from semi-complete skeletons. The burials were confined to Areas A and D and are contemporary with Period III occupation when the earliest quarry pits were used as industrial waste and domestic rubbish pits and may represent illicit interments of infant fatalities by those groups who were most familiar with the site, such as the quarry workers. The skeletal evidence suggests that between four and seven neonatal individuals were interred on the site.

On the eastern edge of Area D, and continuing into the east section, a deeper quarry cut, (196) which measured 0.8m by 0.6m by 0.35m was partly excavated. The earliest fill, (195), a reddish-brown clayey silt with much charcoal and burnt Pennant Sandstone contained the base of a late-first century Severn Valley ware tankard which was provisionally thought to be a container for a possible cremation. To the west of this deeper cut, Context 158, which was contemporary with (166) to the north also contained numerous finds. Context 158 overlay 186 which was contemporary with (173) to the north, and contained much burnt silty soil, charcoal and burnt Pennant Sandstone. The earliest deposit, (197), which was contemporary with 195 to the east, was a reddish-brown silty soil with fragments of pink Dolomitic Conglomerate. It contained an almost complete neonatal skeleton SF 362.

The quarry pits within Area D, that is (182), (167), (185) within outer cut 151, and (197) south and (196) to the east within outer cut 219, probably represented a single greater feature.

PERIOD IVa - ROMANO-BRITISH 3RD-4RD CENTURY AD

The road, later quarrying, and timber structure (B1) (Fig.4)

This period (IVa) was the most intensely occupied Roman phase. It included quarries to provide metalling for a road or track crossing in Area A, the creation of yards or 'cobbled' areas and a timber structure in the south-east corner of the site. Further quarrying occurred in Area C although adopting a different technique.

The main feature from this period was the construction of a road or cart-track, presumably for transporting stone to the nearby settlements (Fig.4).The construction of the road (19) and (161), was associated with contemporary quarry pits 27 and 31, and probably pit 221. Quarry pit 27 was very prolific of finds. The road, which was aligned NW-SE, ran diagonally across the south-west corner of the site in Area A. It provisionally measured 18.5m by 7.2m although the north-west extension had virtually disappeared due to later disturbance (see Period V). The west and eastern edges were clearly defined by pits 27 and 31, and a pronounced camber or 'agger' was discernable, particularly in the southern section (Fig.4.1).

The road consisted mainly of consolidated yellow and red dolomitic scree and larger fragments overlying the more massive beds of Dolomitic Conglomerate and outcrops of Carboniferous Clifton Down Limestone. Further outcrops of weathered conglomerate defined the western and eastern edges of the road. Towards the south section, within the road make-up, there were concentrations of larger more angular stone which included Pennant Sandstone and Carboniferous Limestone fragments, (23), (33) and (121). The larger feature, (23), was interpreted as a casual repair to the road. The road make-up was fairly shallow, c.0.3m in depth but sufficient to create a camber in order to displace rainwater from the surface. There were no traces of parallel road ditches, though the natural bedrock was permeable. There were no obvious wheel ruts but there was evidence of repairs to the surface. The road only lay at a depth of 0.2m to 0.3m below the modern surface which probably accounts for the lack of surviving road at the northwest end, the result of more recent landscaping. The original road surface may have contained larger stone slabs, although there was no surviving evidence for this and a more substantial road surface may not have been necessary if the road carried only limited traffic.

The south extension of the road leads towards the Iron Age hill-fort at Blaise with its subsequent extensive Romano-British occupation and late Roman temple (Russell and Williams 1984, 24, and Rahtz 1957, 147). The north-western extension, if continued along the contours of the naturally sloping terrain, leads towards known areas of Romano-British settlement which occur throughout the present-day route of Long Cross (Russell and Williams 1984, 26), particularly the site occupied by St.Bede's School (Parker 1984, 27). It is possible the road turned south-west following the lower ground towards the site of the Kings Weston Roman villa.

Alternatively the road may represent a section of the Roman route between Sea Mills and Gloucester although this has been previously speculated as lying further to the west (Russell and Williams 1984, 26 Fig.2) (Margary 1957, 126, 541). This particular road which would have been subject to considerable and regular traffic may have been expected to have been more substantial than that excavated.

There are no obvious indications of the road continuing south across the present-day Blaise park-land, although the road would probably not have survived the landscaping activities associated with the 18th-century Blaise House and estate and moreover the more recent creation of cricket pitches in the area. Further evidence may survive within the present wooded areas around the site of the hill fort to the south; however, this could only be determined by further excavation. The routes of Roman roads in the south-west

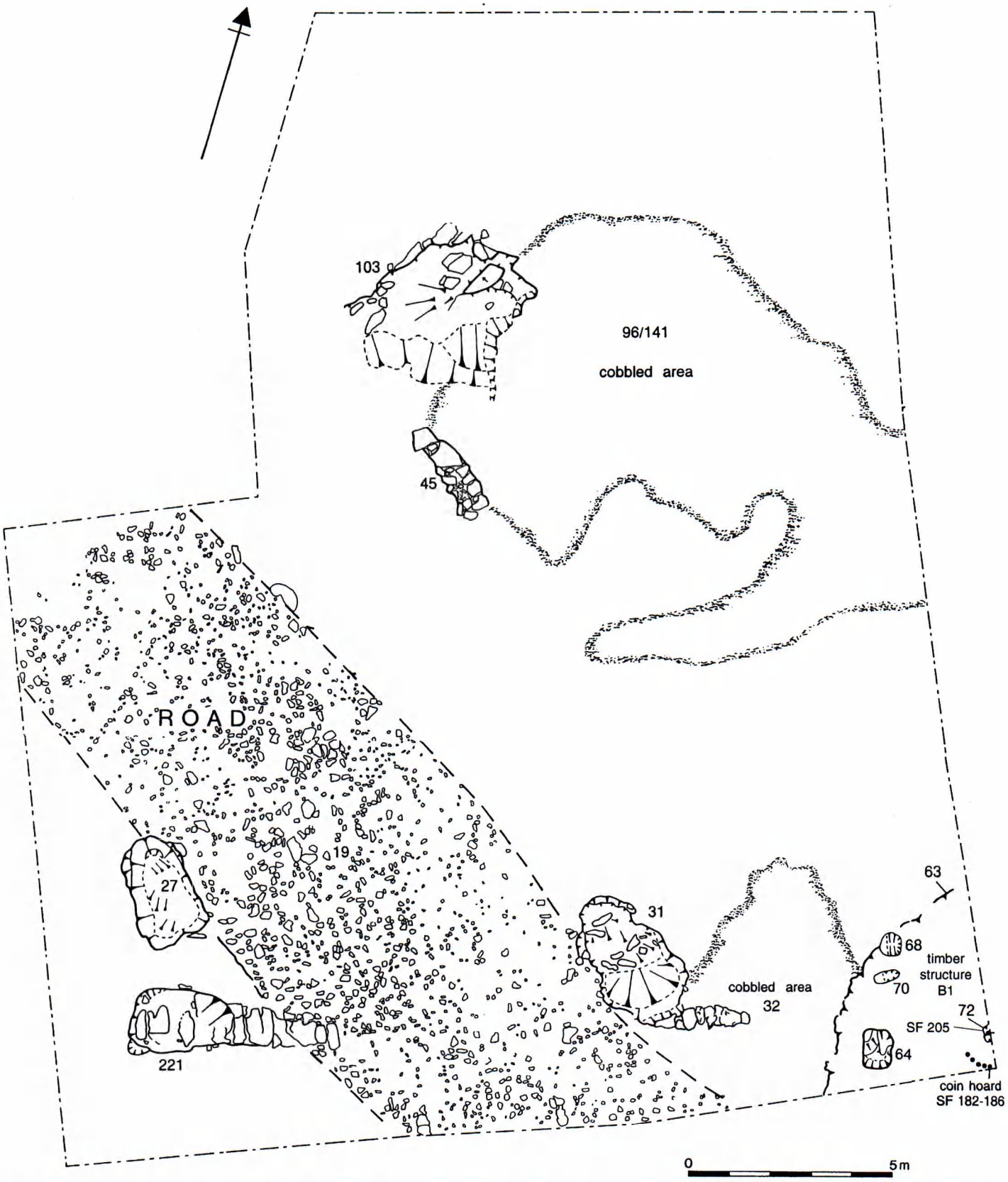

Fig.5 Plan of the quarry pits 27 and 31, road 19, cobbled areas 141/145 and 32, and the timber structure (B1) in Period IVa

Fig.5.1 Section through the quarry pits 31 and 27

have on occasion been difficult to confirm and may have been less substantial than previously thought or subject to considerable later disturbance (Bennett 1985, 28).

A 1.0m wide section was excavated through the road and contemporary features along the line of the south section, (161) and (163). This produced a considerable amount of Black Burnished and Congresbury ware pottery, and several coins of late third to mid fourth-century date including a fine silver antoninianus of Postumus 259-68 AD (Fig.5). In addition several fragments of box flue tile and Roman roof-tile were also found.

Quarry pits 27 to the west and 31 to the east of the road had been excavated in order to provide the dolomitic scree for the road metalling (Collingwood and Richmond 1930, 216). A larger quarry pit, 221, south of pit 27, probably fulfilled the same purpose.

Pit 27 in Area A was quarried through the upper Dolomitic Conglomerate to the underlying Carboniferous Limestone. The earliest deposit, (75), was a dark brown-black slightly clayey silt, 0.4m in depth of which a sample was taken for analysis (see archive). This layer was very similar to the primary deposits within the earlier quarry pits in Area D of Period III. Context 75 contained numerous finds including Black Burnished and Congresbury wares, decorated Samian, burnt animal bone and charred cereal remains. Also found was a palette of Purbeck Marble, SF 259, probably used for mixing cosmetics or medicines), and a small group of iron objects.

The primary fill of pit 27 was overlain by a tip line of yellow Dolomitic Conglomerate fragments, which appeared to represent subsidence or slippage from the road make-up (19) (Fig.4). This deposit produced a silver denarius, SF 229, of early third-century date. Contexts 75 to the west and the stony remnants of (19) were both sealed by a deposit of brown loamy soil with a few fragments of Dolomitic Conglomerate, (26), which was 0.2m in depth. This latest quarry fill contained pottery including a stamped decorated Samian sherd, SF 223, belonging to the Cinnamus group of potters and dated to 160-180 AD. Several large iron nails and a small iron wedge were found in close proximity to each other, SF 218, and a fragment of iron knife blade SF 209. A mid-third century coin of Valerian II 253-5 AD, SF 216, was also found.

Quarry pit 31 located on and defining the eastern edge of the road in Area B provided conglomerate scree for the road metalling. The red scree here contained much iron oxide. The subsequent backfilling of the pit was virtually identical to quarry pit 27 on the western edge of the road. However, overlying the eastern edge of pit 31 there was a uniform deposit of rounded stone cobbles contemporary with (32) to the east (see below). The earliest dark brown slightly clayey silt deposits in pit 31, (61) and (153), contained animal bone, pottery, iron nails, and two coins of the fourth century, and an imitation coin of Claudius of first century date. The later deposit of reddish brown clayey soil, (30) and (152), also contained pottery, particularly Congresbury ware and animal bone.

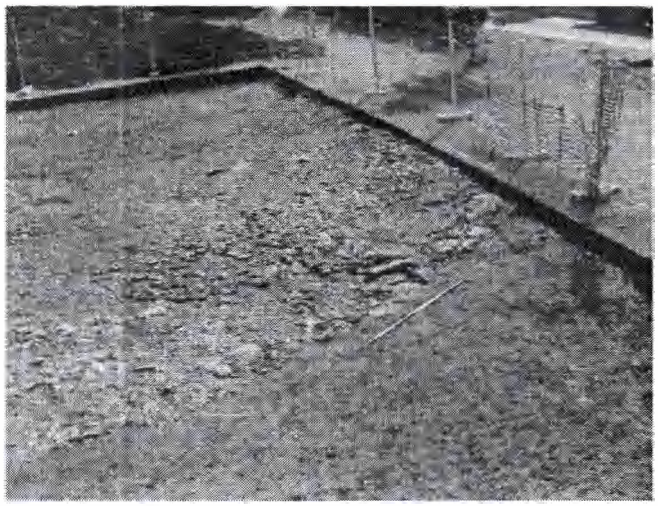

Plate 3 Detail view of the road construction

The large quarry pit 221 located 1.0m to the south of pit 27 contained a fill of brown silty soil with many fragments of yellow Dolomitic Conglomerate, (21) and (157), beneath which Carboniferous Limestone sloped westwards, away from the road edge. This feature also contained animal bone, pottery, iron nails and an iron buckle SF 345.

There may have been other quarry features in Area A in the south-west corner between the road's western edge and the west and south sections of the trench. This area contained a deposit of reddish brown sandy soil with fragments of yellow Dolomitic Conglomerate (8) which was at least 0.5m in depth at 54.37m OD. This contrasted with the other areas of the site where the natural bedrock was located at 55.10m OD. A trench excavated parallel to the south section did reveal further pit cuts in section, and it is probable that much of this area was used for quarrying.

In the north-west corner of the trench (Area C) there were outcrops of yellow and pale pink Triassic Dolomitic Conglomerate which varied in thickness from 0.2m and 0.3m. These massive beds of stone were in places both emphasised and defined by natural shrinkage which had caused jointing, often along uniform lines, giving a superficial appearance of worked faces which resembled possible wall foundations.

This jointing effect in the natural bedrock was exploited in the north-west corner and possibly further south within the earlier evaluation trench. A shallow north-east sloping quarry pit, (103), revealed both extraction of the yellow Dolomitic Conglomerate and also apparent prising out of the overlying larger blocks of stone, (118). Extraction of stone using wooden wedges soaked in water and then inserted in holes in fault lines was found at Limestone Corner, east of Carrawburgh near Hadrian's Wall in Northumberland (Bédoyère 1989, 53).A hollow was defined on three sides to the west, north and east, by large jointed blocks of yellow conglomerate. One large block of conglomerate, (136), had been partly levered out from the north 'face' of stone blocks and lay in the centre of the

quarry feature. It could be clearly seen that this large block which measured 1.2m by 0.46m by 0.5m if returned to its original position would have perfectly slotted into the profile of the void left by its removal. Other large blocks of conglomerate had presumably been removed to create the quarry feature. Such large blocks of stone may have been dressed on site prior to their transportation for use as building stone. The levering out of blocks of stone, as a quarrying method, exploiting the natural faults and jointing in the stone is a technique employed at small scale quarries until recent times (pers comm R Clark).

Pit 103 was backfilled with a mixed deposit of dark brown sandy soil containing many fragments of Dolomitic Conglomerate and Pennant Sandstone, (102), (117) and (139). The finds included animal bone, pottery including intrusive sherds of thirteenth-century French pottery from Saintonge and sixteenth-century Cistercian ware.

To the east of this complex of natural features a line of stones, aligned north-west and south-east may have represented the remains of a low boundary wall, (45). This feature measuring 2.5m by 0.7m stood 0.2m high and was constructed of large blocks of roughly-dressed Carboniferous Limestone, Pennant Sandstone and Dolomitic Conglomerate. It was bedded in a shallow deposit of dark brown silty soil, (208), which produced third century pottery and animal bone. Stone feature 45 defined the western edge of a large area of compacted stone cobbles, (96). This layer partly overlay a similar spread of compact stones, (141) and (145), which continued eastwards overlying the earlier quarry pits in Area D. The stony layer, (141), had partly subsided into the earlier pits and the deposit to the west, (96) abutting possible wall feature 45, represented a levelling-up of the cobbled surface. A lens of dark brown silty soil (101) was deposited between layer (96) and (141-145).

The area of cobbles in Area D measured c.8.m by 6.m. To the north and east the cobbled area merged with the fragmentary deposits of Dolomitic Conglomerate scree (204) and (205). To the south the cobbles merged with the scree deposits of the slightly rising ground in Areas A and B. The cobbles consisted of rounded and weathered fragments of Dolomitic Conglomerate, Cromhall Sandstones, Clifton Down Carboniferous Limestone and fragments of Pennant Sandstone set in a dark brown clayey and silty soil, (148) and (150) (Fig.3).

Excavation of the stony cobbles, especially (141) and (145), produced a considerable quantity of finds particularly pottery, mainly Black Burnished and Congresbury wares, and animal bone along with numerous other artefacts. The finds within this area of cobbled stone surface which also sealed the neonatal burials, represents the final stages of rubbish disposal in the earlier quarry pits in Area D.

Further south in Area B there was a similar spread of stone cobbles which covered a much wider area, (32). This deposit extended east from the road as far as timber structure B1 continuing into the south section (Fig.4). It extended north as far as and partly overlay quarry pit 31 before merging to the north and to the east with the yellow Dolomitic Conglomerate natural scree deposits. It was not possible to determine if the cobbled areas to the south, (32) and (161) in Areas A and B originally joined up with the cobbled deposits in Area D, (96), (141) and (145). The overall southern area of cobbles which were of the same composition as those to the north measured c.6.0 by 5.0 m.

The north and eastern edges of this area of cobbles, which were more compact and rounded as if from wear, were laid in a reddish brown slightly clayey silty soil, (162), which overlay the natural conglomerate scree. The cobbles to the south, (32) and (163), sealed the quarry pit features associated with Period II and III occupation. An outcrop of weathered Carboniferous Limestone lying on a west-east alignment subdivided the stony cobbled area. This outcrop (223), located 2.0m north of the south section, may have defined a subsidiary trackway leading east from the main north-south roadway.

Excavations of the cobbled surface, (32), produced pottery, animal bone and iron objects. The trench parallel to the south section, (161), also produced a considerable quantity of pottery comparable in date to the cobbled area to the north, that is late third century. It is probable that some of these finds represent the levelling-up of the Period II and III quarry features and final rubbish disposal prior to the road construction and the laying of the cobbled yard surfaces. This activity parallels the occupation and dating of the make-up and cobble deposits further to the north in Area D.

A semi-complete neonatal skeleton was found in context 161 and is associated with the backfilling of the underlying quarry features (see Period III). Five, late-third to mid-fourth century coins including a silver antoninianus of Postumus, 259-68 AD, which is unusually heavy and of fine condition were recovered from context (161) and the underlying silt deposit (162). Also found was a possible fragment of a copper alloy spatula, and several fragments of box flue tile.

The function of these areas of compacted stones is not clear, although they may represent open yards between the road to the west and the timber structure B1 in the south-east corner. The deposits which certainly represented the end of rubbish disposal in the disused quarry pits were probably mostly derived from quarry waste and perhaps on-site dressing of larger blocks of conglomerate from quarry pits (118) and (137) in Area C. However, as noted above, other non-local stone was used and the cobbled surface had a worn and somewhat weathered appearance.

In the south-east corner of the Trench in Area B and continuing into both the south and east sections were the remains of a possible circular timber structure B1. The structure was defined by a circular edge to the stony cobble deposit west, (32). Three post-holes were recorded inside the circular feature, (64), (68) and (70). A fourth possible post-hole, (71), was partially excavated immediately adjacent to the east section. The dimensions of the quadrant

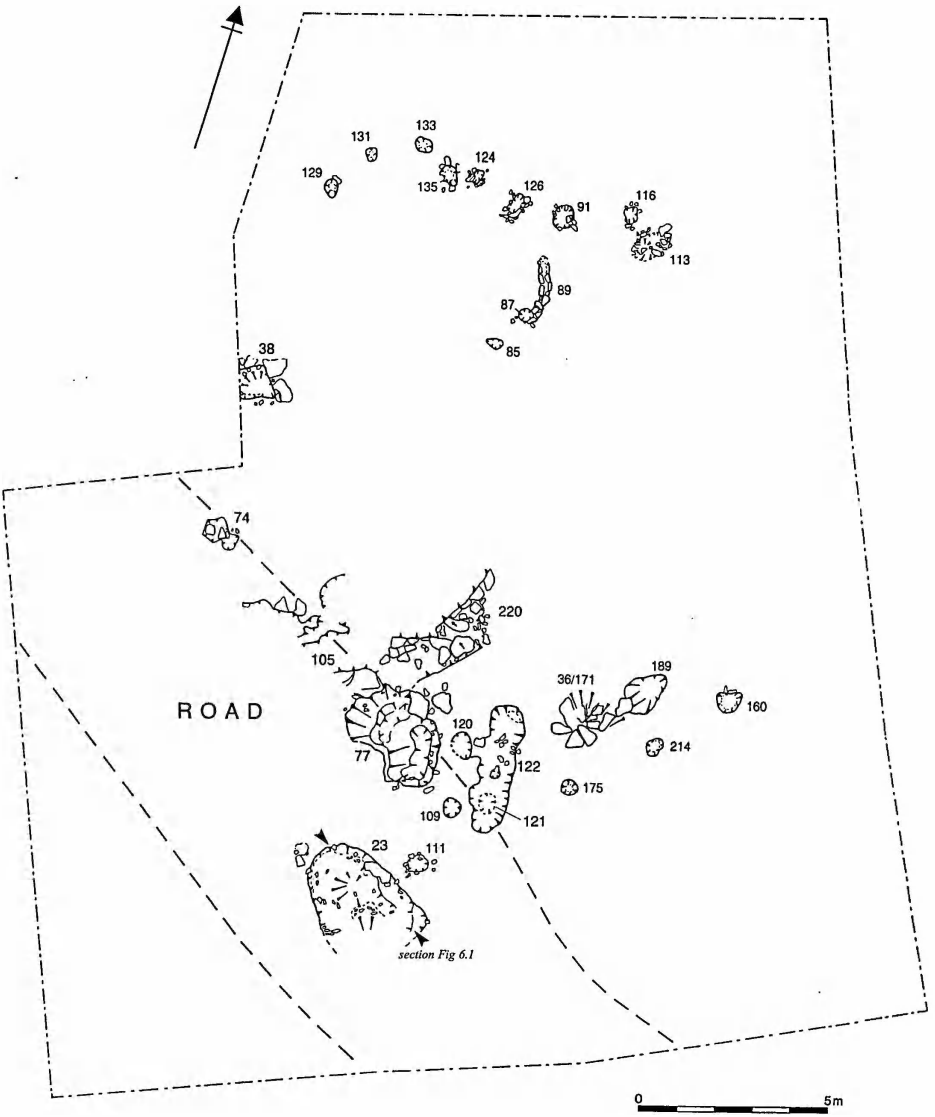

Fig.6 Plan of the road construction - repair 23, Pit 122 and post-hole and stone feature 86/89 in Period IVb

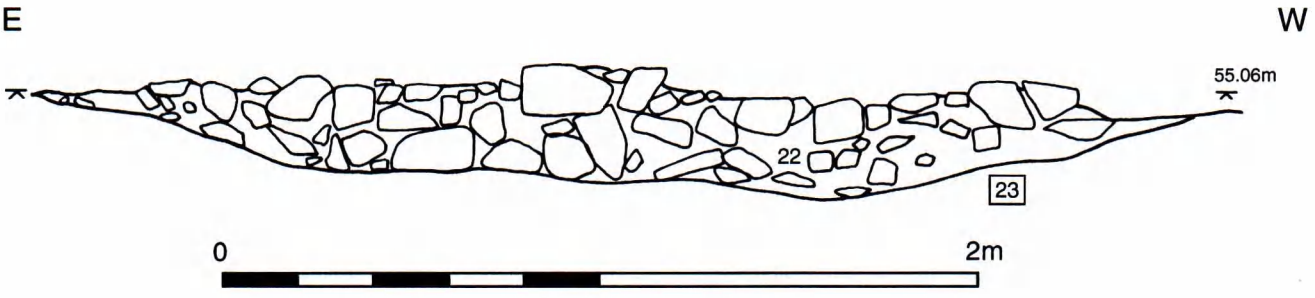

Fig.6.1 Section through shallow pit 23

available for examination were 4.0m by 4.2m. The internal deposit, (63), consisted of a brown silty soil containing small cobbles and fragments of Dolomitic Conglomerate. This layer was virtually indistinguishable from the overlying deposit, (9), which also overlay the cobbles to the west.

In the south-west corner of feature (63), a circular post-hole, (64), 0.5m in diameter, complete with stone packing was 0.3m deep. This post-hole was set within a rectangular post-pit which was partly sealed on the south by a collapse of the stone cobbles, (32). Further to the north post-hole (68) measured 0.5m in diameter and 0.25m in depth. This post-hole utilised a natural outcrop of conglomerate to the south as packing. A third possible post-hole, (70), 0.55m by 0.3m by 0.1m which probably represented the surviving base of a post feature was found between post-holes (64) and (70) and close to the inside edge of circular feature (63). Post-hole 70 also utilised the natural outcrops of Carboniferous Limestone and Dolomitic Conglomerate. The western edge of a fourth possible small pit or post-hole, (72), was found continuing into the east section (Fig.5).

The fills of all four features were similar and consisted of a brown silty soil with small fragments of Dolomitic Conglomerate and charcoal flecks. The features cut into the underlying uneven natural Dolomitic Conglomerate and Carboniferous Limestone outcrops within B1. In the south-east corner of this timber structure below the overlying brown soil (9), a small 'hoard' of coins was found. The hoard comprised five large copper alloy sestertii, dated from the late second to early third century (Fig.5). The five coins were all in line with each other, within an overall distance of 0.25m. They were either lying face up or on edge, and conveyed the appearance of originally having been contained together, face-to-face within a long narrow receptacle, possibly a leather purse (Liversidge 1968, 169). A sixth coin, a late second century sestertius of Marcus Aurelius, 161-80 AD, was found in Context 71 immediately adjacent to the east section. This coin, which may have been part of the original group, had possibly rolled to one side when the container had decayed.

Other finds found within circular feature (63) and associated with the post-holes were a small quantity of Romano-British pottery, animal bone and a shale spindle whorl which was found in post-hole 64. It is probable that the clearance of layer 9, which contained a considerable quantity of finds, removed material associated with this underlying structure. The interpretation of the structure is complicated as it was only partially excavated. There was no surviving evidence for internal floor levels or working surfaces. Post-hole 64 was quite substantial while the surviving remains of post-holes 68 and 70 were lesser features. It is not possible to say if this structure represented part of a timber building or perhaps merely a timber boundary fence separating the stony cobbled yard surfaces from other activities further to the east, perhaps an enclosed or partially-covered work area for stone dressing or animal enclosure.

PERIOD IVb - ROMANO-BRITISH c.LATE 3RD AND 4TH CENTURY

The end of the Roman occupation (Fig.6)

This penultimate period of occupation represents the last significant evidence for activity on the site. In contrast to Period IVa there is a dramatic decline in occupation which consists of rather haphazard shallow pit digging and insubstantial timber structures.

A shallow pit, (23), was recorded in the road at its south end in Area A (Figs.6 and 6.1). It contained a compacted mixed stone fill (22), which was interpreted as repair to the road. The finds included some late Romano-British pottery, animal bone and a copper alloy hook-shaped object.

Further to the north in Area C there were several shallow pits, (38), (55) and (74), all containing similar deposits of brown and reddish-brown silty soil with much stony rubble, mainly fragments of Dolomitic Conglomerate. The pits may represent a limited amount of casual stone extraction, presumably the Dolomitic Conglomerate scree, for use as mortar or perhaps floor make-up. The pits were then subsequently used as depositories for domestic waste and unused stone.

The features contained a considerable amount of pottery mostly of Black Burnished and Congresbury wares of the third and fourth century along with animal bone. Other finds included several iron nails, flint blade fragments, a well-worn whetstone of Pennant Sandstone, a decorated copper alloy finger ring, and a coin, a barbarous copy, antoninianus of Victorinus (268-70 AD) or Tetricus I (270-3 AD). Several other shallow features which produced pottery are described in more detail in the Archive.

In Areas A and B a few post-holes and possible post settings utilised outcrops of the Dolomitic Conglomerate, (35). Several of these features were rather shallow and ephemeral. A linear feature, (122), which measured 4.0m by 1.0m x 0.2m in Area A contained a central circular feature (121), possibly the base of a post-hole. Feature 122 and possible post-hole 121 both contained the same reddish-brown silty and slightly clayey soil with fragments of yellow Dolomitic Conglomerate and red iron oxide. Two shallow features to the west, (109) and (120), of similar dimensions, 0.7m in diameter and 0.3m in depth were contemporary with linear feature (122) (Fig.6). Both features may represent post-pits. A few potsherds were the only finds and included early and late Romano-British pottery.

It is unclear what function these shallow post-holes performed. However, linear feature (122) may represent a retaining timber structure for loose quarried stone and scree prior to removal from the site. It is probable that this penultimate occupation was subject to contamination from Period V, and features may not have survived the subsequent disturbance.

In the north-west corner of the trench in Area C, overlying quarry feature (118-137), was a circular arrangement of ten post-holes (85, 87, 91, 116, 124, 126, 129, 131, 133 and 135), although the last three were very shallow and tenuous. The post-holes varied in diameter between 0.4m and 0.6m and were up to 0.2m in depth. There were no obvious indications of packing though they appeared to utilise the underlying irregular natural conglomerate. Post-holes (87) and (91) produced considerable amounts of pottery of late 3rd-4th century date and (90) also contained some animal bone. The only other finds were iron nails,. The internal diameter of the post-hole structure measured 4.0m. There was no internal contemporary level as this area contained the backfilled deposits of quarry pits (118-137). Contemporary with the post-holes was a pitched stone feature (89), probably representing the remains of a drain or soakaway aligned north-south.

The function of the circular feature of post-holes and the pitched stone feature was unclear as most of the post-holes were shallow and insubstantial and some, (129, 131 and 133) were ephemeral if not doubtful features. The structure was provisionally interpreted as an enclosure containing a possible drain or soakway, perhaps for quarried stone and scree prior to transportation away from the site and may have been similar to timber feature (122) in Area A. Other shallow pits were recorded in Areas B and D.

Period IVb represented the latest Romano-British occupation on the site. The road was still in use as was shown by the shallow repair to its surface, (23), although, other shallow features to the north, (73), do encroach upon the projected route of the road. A few shallow pits suggested some slight quarrying activity continued although only exploiting the shallow deposits of conglomerate scree, rather than the larger blocks of Dolomitic Conglomerate or the underlying Carboniferous Limestone. The slight timber features appear to be associated with the limited surface quarrying. The obvious decline in activity and apparent abandonment of the site is mirrored at the known contemporary villa at Kings Weston, and the temple site on Blaise hill-fort. This may in part be a reflection of the unsettled conditions generated by the raids in the area in AD 367, although the villa at Kings Weston, which suffered damage by fire, was occupied into the late fourth century (Branigan 1969, 24). Occupation continued in the immediate area as indicated by several coins of the 4th century. However it would appear that by this time there was no further demand for the available stone or that this source had been abandoned. Occupation of villa sites continued in the area into the fifth century as shown at Gatcombe, and at the town of Sea Mills, although perhaps on a much reduced scale (Branigan 1969, 25). The later part of the fourth century, when raiders from Ireland sailed up the Avon valley, was a period of turbulence and unrest, and by the early fifth century the Romanised way of life was in decline (Bird 1987, 70).

PERIOD V - POST-ROMAN

Reversion of the site to agricultural occupation

There was no evidence for post-Roman occupation on the site other than two modern features (13) and (94), the latter represented an unsuccessful hole for tree-planting complete with decayed stake. Overlying the Period IVb late Roman occupation was a deposit of dark brown loamy soil and reddish-brown sandy soil with fragments of Dolomitic Conglomerate. This deposit, (3), varied in depth from 0.2m at the south end of the trench to 0.4m in the north-east corner where the ground level dipped naturally and had been made up by the dumping of modern rubbish, including bricks, scalpings and concrete, (12). The loamy soil deposits, which covered the whole site, were sealed beneath a more humic subsoil and turf, which varied in depth between 0.1m and 0.3m. There were no contemporary features within the loamy soil which produced a considerable volume of residual finds, particularly Romano-British pottery, though much of it was quite small and abraded. There was also a sprinkling of medieval and post-medieval pottery.

The weathering and abrasion of much of the animal bone and residual Romano-British pottery probably resulted from the effects of ploughing over the site, possibly since the medieval period. Such activity would have caused major disturbance to the underlying Romano-British occupation levels on such a shallow site and indeed there were faint traces of possible plough marks on some of the more massively bedded Dolomitic Conglomerate (41, 45, 49 and 98).

DISCUSSION

The earliest evidence for occupation of the site and of the wider area was represented by two sherds of Bronze Age pottery and a flint assemblage which dates from the Palaeolithic period. The lack of Period I features may be

explained by the subsequent Romano-British occupation, the nature of that occupation, and the shallow depth of soil accumulation and the disturbance of more recent times. The combined effects of these factors would have considerably reduced the chances of any features, domestic or religious, surviving from the prehistoric period.

However, the quantity of prehistoric flints recovered from the excavation may suggest more than casual losses resulting from activities such as forest clearance and hunting. The multivallate hill-fort at Blaise Castle just to the south of the site and the three round barrows and other earthworks on Kings Weston Hill to the south-west represent perhaps a consolidation of settlement occupation in the immediate area by the Iron Age. A period represented on site by pottery and possibly by a penannular brooch.

The main occupation features on site were the small-scale quarrying operations for the local stone (Period II), a road and contemporary and later timber structures which all fall within the Romano-British period. The dating was based on the pottery and other finds which cover the entire Roman period - the nature of the occupation and the overall shallow depth of the site having blurred stratigraphical relationships and perhaps made dating more difficult. The consolidation of the earliest quarry pits from their use as rubbish pits seems to be followed by use of the site as a small, possibly illicit cemetery during the late second and early third centuries (Period III). The succeeding phase of road construction, limited quarrying and contemporary timber structures in the third and fourth centuries was represented by the highest volume of finds, particularly pottery (Period IVa). The subsequent phase represented a decline in activity which is reflected in the finds (Period IVb) and sees an end to the Romano-British occupation of the site. The final, post-Roman occupation, represented an abandonment of the site and its reversion to agricultural use from the medieval period onwards, until its consolidation as a landscaped leisure area associated with the Lawrence Weston housing estates constructed throughout the 1950's. The disturbance caused by the latest occupation, including ploughing, resulted in this phase producing the most finds, including Romano-British and later pottery, but in a disturbed and residual context (Period V).

The Quarries

The earliest surviving features were the small-scale groups of stone quarries in Areas B and D. The former were only partially revealed as they continued into the south section. The depth and intercutting character of the quarries suggested piecemeal extraction of stone which may have carried on over a long period of time, albeit perhaps sporadically and in small quantities. The quarries were dug to extract the Dolomitic Conglomerate which contained Carboniferous Limestone pebbles, and probably the underlying massively bedded Clifton Down Limestone deposits. It is worth noting that this exposed area of quarrying may only represent a small sample of such activity which certainly continued to the south of the excavation area. Quarrying did continue in the area in more recent times with open quarries depicted to the west of the site in the wooded Greenhill Plantation and in the name 'Limekiln Wood' to the south at the eastern end of Kings Weston Hill (Ordnance Survey 1:2500, 1952).

The irregular shape and stepped nature of the quarries reflected a method of stone extraction determined by the geological nature of the strata. All the quarries contained a dark silty primary deposit containing burnt material and quantities of charcoal suggesting that the extraction of the stone was aided by the use of fire, a technique also used in the shallow quarries found at Sea Mills (Bennett 1985, 26 and Davies 1985, 60). Other techniques for stone extraction which exploited the natural jointing in the Dolomitic Conglomerate deposits were adopted at a later period. Examples of what were probably quarry workers' tools, including iron wedges, chisels and whetstones were found and were doubtlessly used for both extracting and dressing the stone.

The quarries suggested stone extraction on a small scale and it is a reasonable assumption that the site or settlement requiring this material would not be located too far away. It is not uncommon for quarrying operations to occur on the edge of a settlement eg at Ilchester (Leach 1982, 63), Sea Mills (Bennett 1985, 26) and Cirencester (Wilkinson 1988, 204). The extent of the quarrying would suggest a small-scale settlement, perhaps a farmstead or even a small villa. There are numerous recordings of Romano-British finds within the immediate area, particularly along the route of Long Cross to the east (Russell and Williams 1984, 26). The site of a settlement was found at St Bede's School to the south (Parker 1984, 27) and a small cemetery at Henbury School to the east (Russell 1983, 21). Extensive Romano-British occupation is recorded within the Iron Age hill-fort at Blaise with a later Roman temple (Bartlett 1918, 163 and Rahtz 1957, 147) which included a small cemetery. Romano-British burials were also found on Kings Weston Hill (Godman 1961, 41). There is also a preserved villa to the west (Boon 1950, 5) although this might be too far distant and a more immediate source would have provided the stone for that building.

The immediate area to the north and east of the site sloped away naturally and would have required terracing for any building. The area to the west was investigated by several trenches during the evaluation carried out in 1994 (Fig.1), all of which were negative of any signs of occupation. This would suggest that any associated contemporary settlement responsible for the quarrying lies somewhere to the south. The site may be that already known within the confines of the hill-fort or perhaps might be located in the area between Blaise and Kings Weston Hill. Alternatively it may lie in the open landscaped area, part of the present-day Blaise Estate, between the site, Kings Weston Road and Blaise hillfort. On the opposite side of Kings Weston Road to the south of the site is a brick-built pumping station. South of the station are a series of earthworks which, if not resulting from the construction of that building, might suggest the presence of earlier features.

The dating of the first quarries is made more difficult by

the apparent nature of their backfilling and subsequent use as rubbish pits. The large quantities of pottery and animal bone within the quarries were fragmentary, weathered and abraded. This suggests that this domestic rubbish had been accumulated on temporary midden heaps, presumably near to the dwelling site, prior to periodic transfer to the disused quarries for disposal perhaps in order to reinstate the site. The presence of Iron Age pottery in the earliest deposits of the quarries might suggest therefore that the date of initial quarrying on site and their subsequent backfilling is of the late first to early second century.

The Infant Interments

None of the burials, which were all neonates, were found in surviving grave cuts. However, it is likely that they were originally interred in shallow graves, possibly by the people who carried out the quarry digging, and that some of the burials were accompanied with grave goods. There were four semi-complete neonatal skeletons recovered from stratified, discrete contexts in the interface between the latest backfilled quarry deposits and the make-up levels for the subsequent stony, open yard. In addition, there were another three neonatal skeletal fragments recovered in later contexts which could not be equated with the stratified remains. This suggests a minimum of between four and seven infant burials.

The main reason for suggesting the infant remains were deliberately interred on site is the presence, in at least four instances, of complete or semi-complete skeletons. If, as appears to be the case with the pottery and animal bone, that it was redeposited in antiquity from a midden heap to the disused quarries, it is inconceivable that similar treatment afforded to the infant remains would have resulted in their surviving as intact skeletons by the time they arrived on site. If they had been exposed for any period of time above ground the effects of weathering and decomposition, combined with attacks by wildlife, would have rapidly dispersed the bones. The lack of recognisable grave cuts on site may be explained by the combined effects of subsidence and settling of the earlier deposits within the quarries and the overlying stony deposits. It is not unusual for skeletal remains, especially infants, to decay depending on soil conditions and other factors (Rodwell 1981, 160) and dispersal of small bones would be affected by rodents and later disturbance to the site.

The surviving interments do not appear to have been contained within coffins or their graves marked or lined with stone as at the Romano-British farmstead and cemetery on Bradley Hill, at Somerton in Somerset (Leech 1981, 189). They may have been contained in a shroud-like wrapping which would have reduced the rate of decay and attacks by 'invertebrates and small mammals' (Garland and Janaway 1989, 27) and also would lessen the effects of dispersal of the bones. It was not possible to determine the alignment of the burials. There were three semi-complete discrete skeletons within the quarry complex and fragments of two other skeletons in later contexts in Area D. In the Area B early quarry features there was one semi-complete skeleton and another fragment, possibly representing a second individual.

Burial, according to Roman practice, should take place outside the area of settlement, the exception being newborn infants which have often been found inside or under the eaves of buildings, both instances having been recorded at Ilchester and Catsgore in Somerset (Leech 1980, 336). Burials usually occur near settlements, and in small rural complexes as at Catsgore, Bradley Hill and probably Ilchester, each farm probably had its own distinct cemetery (Leech 1982, 31).

There is a high incidence of infant mortality recorded on several sites in the Roman period (Collis 1977, 26 and Leech 1981, 177). This may have been caused by a number of factors including "the hazards of both childbirth and early childhood" (Everton and Leech 1981, 197) and of course infections such as dysentry and enteritis (Collis 1977, 29) probably exacerbated by living conditions and dietary considerations. There were no indications of cause of death on the skeletal remains, but it probably was from infection if not a result of parturition.

The deposition of the infant remains in the areas of backfilled quarries as opposed to a designated cemetery or within a building or enclosure is perhaps a reflection of the lack of status and poverty of the group responsible for the burials. It is possible that this group were the actual quarry workers themselves. They may have represented a fairly low status group within the farmstead or settlement, and were too poor for access to a cemetery. They certainly would be familiar with the area and moreover with the reinstatement of the disused pits with the domestic waste. The four semi-complete infant skeletons represent a contemporary group and may reflect a small epidemic among the newly born infants of the quarry/farmstead workers. They either could not afford burial in a cemetery or were perhaps not allowed to, especially if the cause of death had been regarded as infectious. There may have been some indifference to the status of newly born infants at this time (pers comm G Barber) although their apparent, if illicit, act of burial combined with the possible association of grave goods would seem to suggest the contrary. Recent work on the outskirts of the Roman settlement at Great Yard, Ilchester, uncovered three infant burials, two of which were articulated, in graves of c.third century date, and one disarticulated, but found above a series of disused gravel pits subsequently used for rubbish disposal and of c.fourth century date. There were no apparent grave goods (pers comm R Broomhead).

It is not possible to suggest that the interments here were definitely accompanied by grave goods, especially considering the lack of surviving grave cuts combined with the apparent dispersed extent of the skeleton within their contexts. However burials SF 403 and SF 467 within Context 150, a single individual whose remains were still together and probably articulated, were surrounded by a cluster of remarkable small finds. These included a worked bone object, complete trumpet brooch, a copper alloy armlet, a lead disc, and several coins. The coins suggested a

late third century date for the burial. The lead disc could even have been a lid for a burial canister. There were many other small finds found in this area, including a fragment of a childs Kimmeridge shale armlet (Fig.14).

Burial SF 351 some 3.0m to the east of SF 403 and lying on the edge of the area of backfilled quarry pits was found in association with a fragment of copper alloy hairpin. Burial SF 362, lying 3.0m to the south of SF 351 was contemporary with the base of a Severn Valley tankard of second century date (Fig.16) and two coins of the late third century. A complete lower stone of a rotary quern was located between the three interments (Fig.14). Burial SF 448, located near the south section, was found in association with several coins which were late third to mid fourth century and a fragment of glass, possibly part of an unguent jar. In addition to the coins and other higher status objects found in a contemporary relationship with the infant burials there were many other more modest objects of iron and stone.

It is not possible to positively attribute any of the aforementioned small finds as representing deliberately placed grave goods associated with the infant interments and serving as accompaniments to the after life as part of Charon's fee (Leech 1981, 203). The less prestigious objects, including iron nails, have been recorded with adult burials as part of the religious ritual (Leech 1980, 343, and Bennet 1985, 26). However it is significant that these higher status objects either cluster around or are close to the burials. The status of the objects is in contrast to the weathered and abraded material deposited in the disused quarry pits. The trumpet brooch associated with burial 403 was still in working order. The displacement of some of the objects probably reflects the settling of the deposits within the disused quarries and perhaps disturbance of the burials by small mammals.

The Road, Quarry and Timber Structure

The road construction may represent exploitation of the area for quarrying on a larger scale, beyond the area of excavation. The small-scale piece-meal quarrying carried out to provide road metalling or mortar appears to have been replaced by an interest in quarrying larger blocks of stone, presumably for building purposes. This stone was probably levered out in blocks following the natural jointing in the bedrock. The natural, irregular blocks of Dolomitic Conglomerate were then probably transported to the settlement for dressing. The transportation of such large blocks of stone would certainly have required a reasonable road surface. The two contemporary quarries which define the western and eastern edges of the road probably provided the road metalling, were backfilled with rubbish and were prolific of finds. The road, complete with its cambered surface or 'agger' subsequently spread over the adjacent quarry pits.

The projected line of the road, north-west, continues towards the present-day St.Bede RC School, the site of a Romano-British settlement (Parker 1984, 27) although provision would, of course, have to allow for the natural slope of the ground. Projection of the road south-east appears to lead directly to the centre of the Blaise Iron Age hillfort with its known Roman occupation including the site of the late Roman temple (Russell and Williams 1984, 24). There is no obvious indication of any earlier road remains on this alignment in the present-day landscaped parkland. Any possible continuation south, of the road, may have been destroyed in the eighteenth-century landscaping of the estate.

The construction of the road and its lack of evidence for repeated repair coupled with the absence of drainage ditches suggests perhaps that it never carried a great amount of traffic, and reduces the possibility of it representing a section within the route between Sea Mills and Gloucester (Margary 541). However, in an area so intensively occupied there were undoubtedly branch roads which served not only to transport stone from quarry to settlement but also to link settlements with the main arterial routes. The road as excavated may have fulfilled this function.

The need for larger blocks of stone specifically required for building purposes may reflect a transition at this time from timber construction to that of stone and possibly for the construction of higher status buildings. The walls of the villa at Kings Weston to the west were partly constructed with Dolomitic Conglomerate (Smith 1950, 56). The stone on site may also have been used in the Roman settlement within Blaise hill-fort and also for the late Roman temple found there. The large numbers of Roman coins found on the site, particularly in Periods IV and V, could be associated with the presence of the nearby temple. There may have been ancillary buildings close to and on the route leading to the temple providing goods and accommodation for those visiting the shrine, similar to those at Pagan's Hill in Somerset and Uley in Gloucester. It is also recorded that "regular and deliberate deposition of coins in the pathways leading to the shrine were found at temples at Woodeaton (Oxon), Frilford and Pagan's Hill" (Department of Prehistory and Archaeology, University of Sheffield - the Gods of Roman Britain n.d., 2).

The earlier quarry pits to the east of the road were sealed by a compact and worn area of stony cobbles. This deposit continued into the south section respecting the eastern camber of the road and abutting a circular timber structure which was partly exposed in the south-east corner of the site. There were many coins recovered from this area. The cobbled surface comprised both hard and soft stone and presumably derived from the local quarrying operations and perhaps some limited dressing of the larger stone on site. The stones were deliberately laid and bore indications of weathering. A possible low wall foundation survived in the north-west corner overlying the earlier quarry area. The cobbled surface may have represented an open yard area immediately adjacent to the eastern road edge and nearby buildings for the quarry workers. The yard would have provided a stable and perhaps better drained area overlying the earlier backfilled quarries and the generally pot-holed and uneven ground surface.

The timber structure in the south-east corner which was

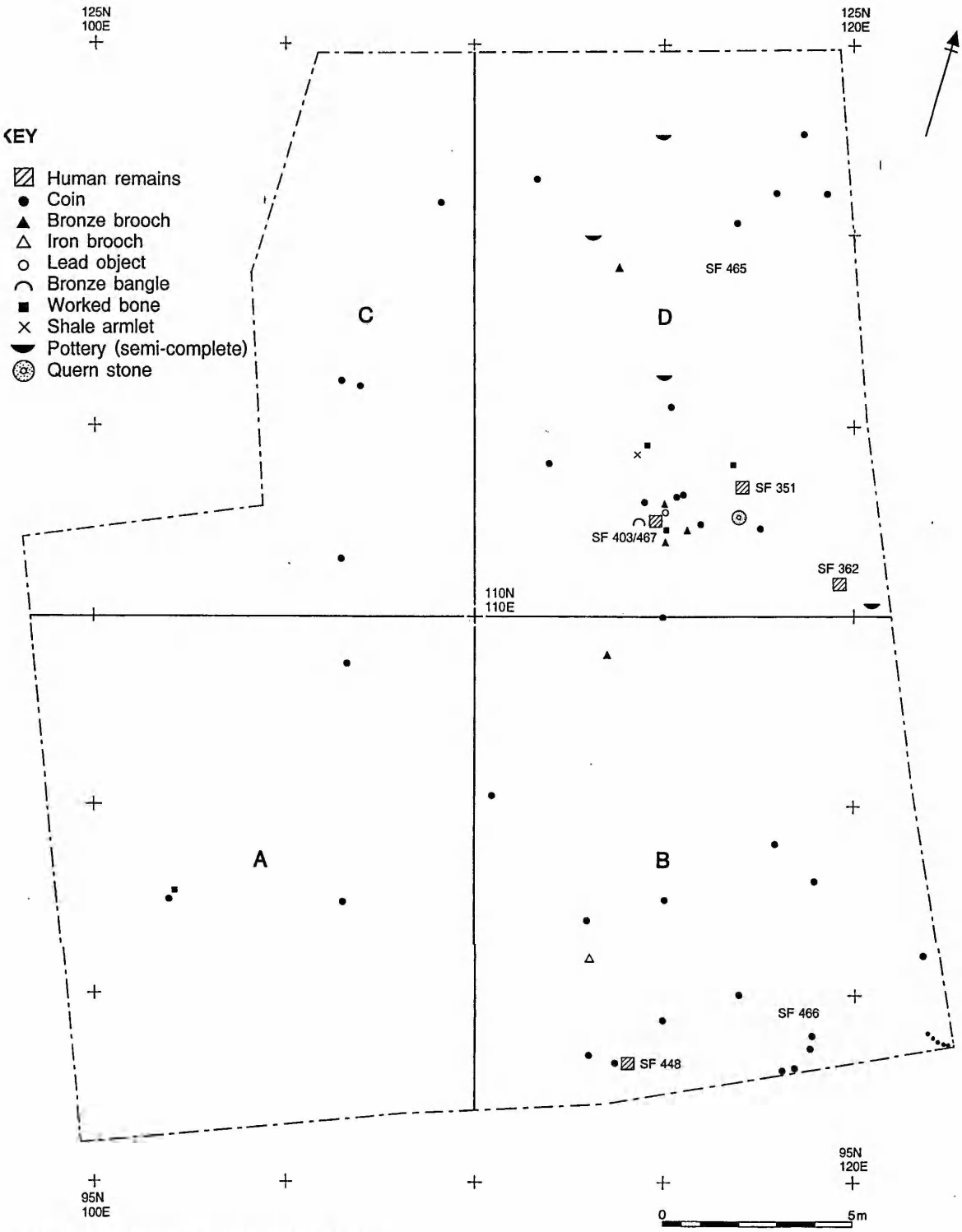

Fig.7 Location of small finds and the site co-ordinates

contemporary with the open yard area was only partly revealed, as it continued east and south beyond the area of excavation. It may represent a timber stockade enclosure where the quarried stone was stored or where perhaps other industrial activities occurred away from the settlement. There were no surviving internal floor levels nor indications that this might have originally been a covered building.

The location of the coins within the timber structure exacerbated the difficulties of interpretation of their deposition. It is not possible to say if they were deliberately concealed or were an accidental loss. The latter interpretation is perhaps slightly more tempting if their final deposition could have been the result of the accidental loss of a leather purse which subsequently decayed and left the coins reflecting the outline of their original container. The coins may have been part of the wages for the quarry workers, they may reflect coins lost by visitors to a temple complex, or they may have been secreted away as a reaction to a period of instability which increased during the late third and fourth centuries (Bird 1987, 69).

By the late fourth century the site appears to have been virtually abandoned with the construction of minor timber structures and shallow pits, some of which encroached upon the projected line of the road. Pits were also excavated through the open yard area, and the timber structure in the south-east corner had gone with its post-holes partially sealed by the disturbed stony, cobbled deposits.

Diet, Trade and Industry

The evidence for diet is provided almost entirely by the animal bones. The analysis of this material provided limited information because of the small size of the sample and its fragmentary and weathered nature. The most common species identified were sheep, goat and cattle, which were represented by fragments of skull and feet, the waste parts from butchery. Other species including pig and horse were recorded along with hen and red deer, and perhaps reflect a typical range of both domestic and wild animal species contributing towards the food of a small rural settlement in the Romano-British period. Many fragments of bone were burnt, suggesting that the material was partially destroyed, perhaps as a fuel, prior to its disposal on site. The older animals found in the later period probably suggests a decline in numbers of animals reared and kept, and supports the impression of a parallel decline in activity and in the status of the settlement. Similar animal species were represented at the villa site at Kings Weston (Hinton and Dobson-Hinton 1950, 57) and at Sea Mills (Levitan 1985, 56). The meat diet was probably enhanced with fish from the nearby estuary, and shellfish including oysters.

The presence of wheat and barley in the soil samples (Archive) might suggest that the area was at least partly arable and the lower stone from a rotary quern provides further evidence for milling on or near the site.

The ceramic evidence, though considerably abraded, provides a variety of vessels including jars, beakers, flagons and dishes reflecting the typical range of domestic wares one would expect from a small rural settlement.

The pottery, particularly the Samian wares also indicate that the settlement had access to markets importing pottery from South and Central Gaul. The small town of Abonæ at Sea Mills with its port would have been an excellent source for such trade, and also provided a centre of supply for products from Caerleon in South Wales. The coins and the many local copies perhaps reflect a high level of trading, particularly in the late third and early fourth century.

The main industry on site was, of course stone quarrying. There were considerable fragments of metal slag and some coal and charcoal, and these residues probably represent the waste products of local iron working and chisels, wedges and a variety of other objects like nails, buckles and horse furniture may have been made locally.

The quantity and diversity of the finds recovered from an area of small disused stone quarries subsequently used for the disposal of domestic rubbish was both considerable and significant. This material, which probably represents a small and artificial sample of the objects used and the waste generated by an adjacent settlement provide an insight into the status of the site and the range of activities which took place throughout the Romano-British period.

THE FINDS (Fig.7)

All finds sections are attributed to individual specialists or to the writer. Further reports and tables, including unillustrated material and context associations, are listed in the Archive. These reports include animal bones, clay tobacco-pipes, flue and roof tile, mollusca, metal slag, post-Roman pottery and soil samples.

THE BROOCHES (Fig.8) **by Pete Insole**

Nine Romano-British brooches were recovered from the site. The majority were fragmentary, although four nearly complete brooches were recovered, a penannular brooch, SF 82, two bow brooches, SF 367, SF 293 and a trumpet brooch complete with pin, SF 290. All were of copper alloy except the bow brooch SF 293 and the pin of the penannular brooch SF 82 which were iron. SF 57 may be a fragment of a pennanular brooch and SF 305 a possible pin fragment. The brooches were recovered from all periods, except Period I, with the majority coming from the clearance layers of Period V.

1. The upper part of a small plain copper alloy bow brooch, the axis bar being only 1.5cm long and fixed into holes in the oval terminals of the wings. The bow is humped over the wings similar to the dolphin style of brooch, but this is more likely to be a stylised support for the lateral lugs holding the axis bar. These lateral lugs are fairly corroded but place the brooch in the Polden Hill style dating the object to the latter half of the first century (Hattatt 1985). SF 4, Context 1, Period V, machining in Area C.

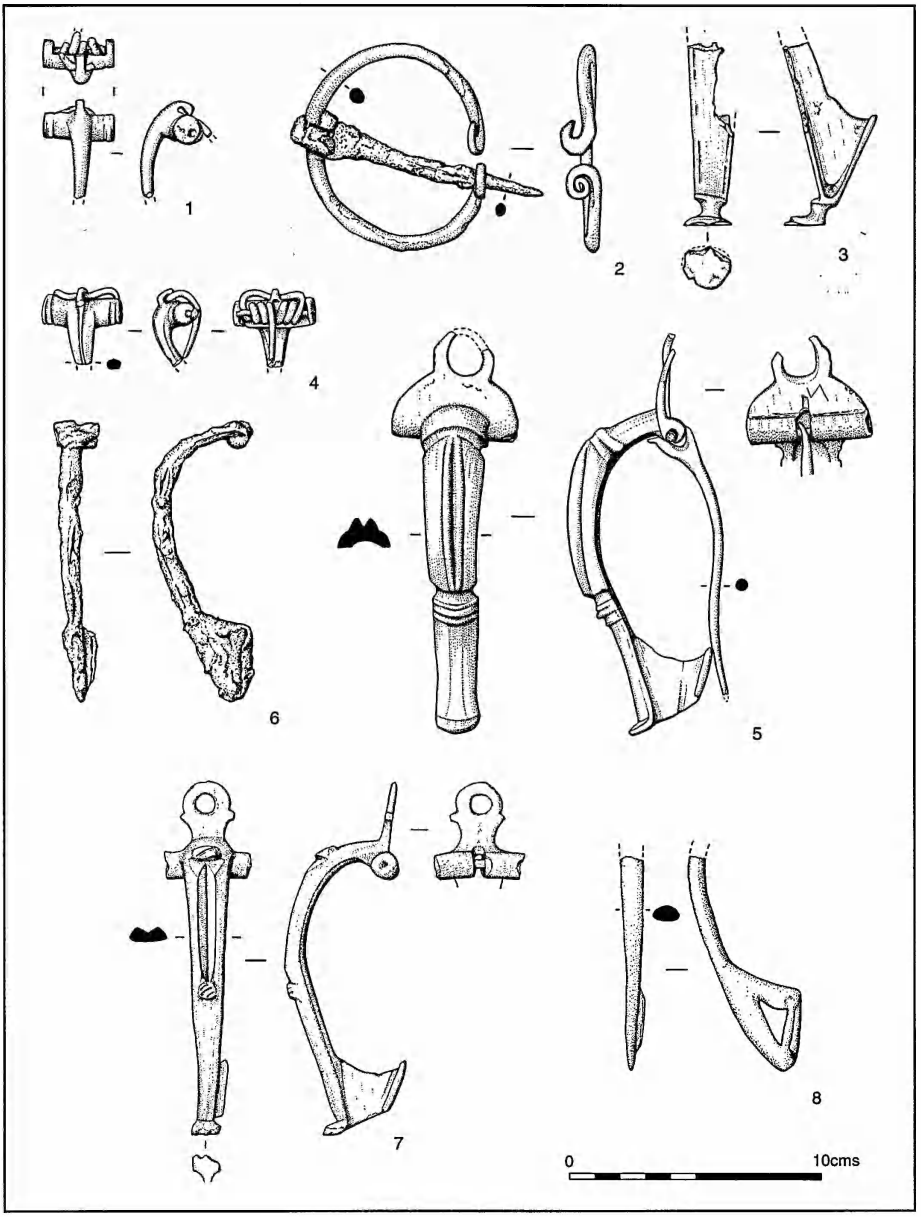

Fig.8 Brooches

2. Copper alloy penannular brooch with an iron pin. The brooch is 4cm in diameter with spiral terminals that stand up at right angles to the plane of the brooch. The pin is badly corroded but appears to be roughly straight. A similar brooch was found at Sea Mills (Mackreth 1985, 29) and at Colchester (Crummy 1983, SF BUC 1718), although this example is smaller. The brooch can be placed in the Fowler Type C classification dating it to the middle of the first century (Fowler 1960). SF 82, Context 14, Period V, clearance layer in Area B-D.

3. Lower portion of trumpet brooch with large protruding foot and simple catch plate. The front of the bow is flat and wide with two faint lines, one either side of the bow, running parallel to the edge. Probably second century. SF 84, Context 16, Period V, clearance layer in Area D.

4. Upper part of a small bow brooch, approximately 1.5cm across the wings, which contains a spring supported by lateral lugs of the Polden Hill style. A ridge runs down the centre of the front of the bow from the support for the lugs. The only other decoration being two faint lines near either wing terminal. Latter half of the first century. SF 195, Context 62, Period V, unstratified in Area A.

5. Large complete trumpet brooch with hinged pin that rests on an axis bar supported within a cylindrical base of the head plate. This head plate is crude, with a loop at the top which is damaged and not central. There is moulded decoration in the central part of the bow consisting of two raised longitudinal lines between two grooves. This decoration has meant the underside of the bow is slightly hollowed. The foot is small and simple, as is the catch plate.

A similar brooch exists from Marshfield (Mackreth 1985, 145; SF 5004) with a crude head plate and hinged pin, although the Marshfield example is plain on the bow and tapers to a simple decorated foot. A closer parallel comes from the site of Nettleton in Wiltshire (Wedlake 1982, 48, 127, fig 53) although this example has a more triangular head plate but very similar decoration. The Nettleton example was placed in Hull's category 'ugly south-west type' (Hattatt 1985), although the brooch can easily be placed in Collingwood's sub-group Riii, a type common to southern and central England before the middle of the second century (Collingwood 1930). The example at Nettleton was found in association with first and second century pottery. SF 290, Context 150, Period II, cobbles make-up deposit in Area D.

6. An iron bow brooch, the pin of which is missing, but which appears to have been hinged, as the head of the bow is coiled over to support the axis bar. The bow itself is fairly thin, tapering slightly to a small, simple catch plate. A similar brooch was found at Sea Mills (Butcher 1987, 46) and at Nettleton (Wedlake 1982, 4, 119, fig 50). Probably first or second century. SF 293 Context 153, Period IV, quarry in Area B.

7. Bow brooch, the pin of which is missing, but the cylindrical terminal to the bow indicates a hinged pin. Above the small wings the brooch has a loop. The bow has a grooved decoration in its centre running between two studs. The brooch has a small foot and catch plate. Similar to the Thealby type brooches (Hattatt 1985), this can be dated to the second century. SF 367, Context 166, Period II, quarry in Area D.

8. Lower portion of bow brooch with a triangular space in the catch plate which is very similar to a bow brooch from Marshfield (Mackreth 1985, 138, SF 17). This brooch is likely to be a Colchester derivitive of no later date than the early second century. SF 369, Context 210, Period III, cobbles in Area D.

Discussion

This is a fairly typical assemblage of Romano-British brooches from the first and second centuries, and similar in date to groups recorded at Sea Mills (Mackreth 1985 and Butcher 1987). Excluding the iron bow brooch, SF 293, all are of copper alloy, and most are bow brooches or fragments of bow brooches of the Polden Hill type. None are unusual for the area, the trumpet and penannular brooches, SF 290 and SF 82, in particular are characteristic of Southern English contexts, although few of the brooches have direct parallels. Only the large trumpet brooch, SF 290, has a local parallel with SF 5004 from Marshfield and the brooch from Nettleton in Wiltshire, and the penannular, SF 82, with a brooch from Abonae, Sea Mills. Brooches SF 290, SF 305, SF 367 and SF 369 fit their chronological periods well. The fact that the iron brooch SF 293 appears in a later Romano-British Period IV is of little relevance. The penannular brooch SF 82, is a good example of an early style of brooch of the mid-first century, and its appearance in a later Period V context could be the result of late disturbance or over-excavation of a clearance layer. However the find is still significant as it is a good example of late Iron Age or early Roman activity on the site.

Most of the brooches are incomplete, explaining why they were disposed of. The complete trumpet brooch, SF 290, is a little unusual in this respect as its good state of preservation poses questions as to why the object was discarded. The loop is broken, which may suggest that this rendered the brooch less useful, if, as has been suggested, this style of brooch was worn in pairs with a chain link running from loop to loop. (Bédoyère 1989, 120). There are several pins and other copper alloy objects which may be fragments from brooches, and which are described elsewhere.

OBJECTS OF COPPER ALLOY by Pete Insole (Fig.9)

Twenty-nine objects of copper alloy were recovered from Periods II-V on the site. Several of the objects are unidentifiable and of unknown date. Details of objects not

discussed here can be found in archive.

1. Finger ring fragment decorated with transverse grooves. Internal diameter 18.0mm, thickness 1.5mm. A similar ring found at Colchester was dated to the Roman period (Crummy 1983, 49, 1770). SF 230, Context 73, Period IV.

2. Fragment of a pin with a spiral terminal. Probably one end of a Romano-British hairpin. SF316, Context 150, Period II.

3. Penannular armlet, thickened in the centre with pointed terminals. It is plain except for slight incised grooves near one terminal. The armlet is for a child. Internal diameter is 48.0mm and central thickness is 3.0mm. Oval section. A similar armlet dating from the second century and in a grave deposit was found at Colchester (Crummy 1983, 38, 1644). Both plain and more ornate armlets were also found at Sea Mills (Bennett 1985, 29, and Ellis 1987, 50). A relatively common Romano-British type. SF288 Context 150, Period II.

4. Splayed end of a possible spatula or toilet spoon of Romano-British date. Similar, more complete, toilet instruments were recorded at Sea Mills (Ellis 1987, 48). SF315 Context 161, Period III.

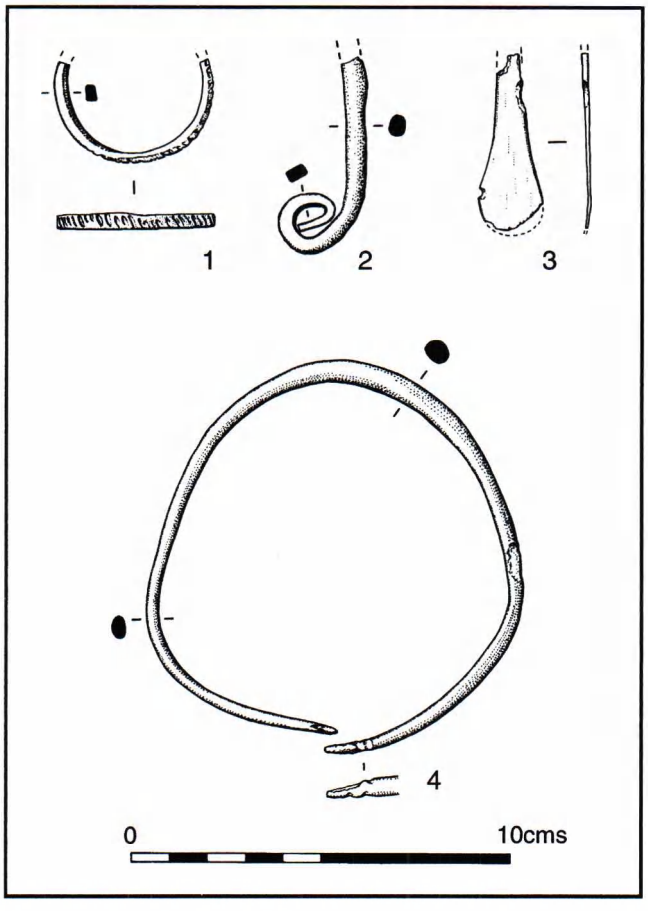

Fig.9 Objects of copper alloy

The majority of the copper alloy objects were found in Period V during site clearance and are undatable owing to the small size of the fragments. Many of these objects may be Romano-British in date. There are several pin fragments, possibly remnants of Romano-British fibula. The spatula or toilet instrument, SF 315, and items of personal adornment, SF 230 finger ring, SF 288 armlet, and SF 316 hairpin, reflect a more personal character of the site which produced these objects. Similar objects are recorded at the Roman town of Abonae at Sea Mills (Bennett 1985, 29 and Ellis 1987, 48), and the Kings Weston villa (Boon 1950, 52). The armlet for a child, SF 288 and hairpin, SF 316, were found in the same context, 150, as the neonatal remains SF 403/467, and the spatula in context 161 associated with neonatal interment, SF 448.

OBJECTS OF IRON **by Eric Boore**
(Fig.10)

1. Annular brooch or buckle with curved-over central pin. Diameter 26mm, thickness 5mm. This object was attached to a narrow strap, possibly an item of horse furniture. Romano-British or later. SF345, Context 157. Period IV.

2. Fragment of horseshoe complete with two square shank nails set into countersunk heads. Length is 115mm and thickness 6mm. A similar horseshoe with 'wavy outline' was found at Chew Valley Lake in Somerset, and attributed to the early Roman period (Rahtz and Greenfield 1977, 282). Romano-British. SF2,4 Context 102. Period IV.

3. Incomplete semi-circular object pierced with nails along its leading edge. Length 95mm, width 50mm and thickness 2mm. Possible part of an Ox-shoe, similar to those found at Sea Mills (Bennett 1985, 31). SF173 Context 9. Period V.

4. Knife blade with tang. Length 120mm width 17mm. SF209 Context 26. Period IV.

5. Wedge or chisel with rectangular section, 18mm by 7mm. Length 75mm.
SF470, Context 26. Period IV.

6. Stylus? incomplete, tip missing. Length 98mm. A more complete stylus was found at Sea Mills (Ellis 1987, 56) and several in copper alloy and iron at the temple site at Nettleton in Somerset (Wedlake 1982, 296), and at Ilchester (Leach 1982, 257). Dated to the third or fourth century. SF257, Context 75. Period IV.

7. Oval buckle? 51mm by 27mm. Romano-British? SF215, Context 32. Period IV.

8. Flat pointed strip with rounded centre and rectangular end. The centre is perforated by a square nail-hole and the object is angled at 60° through the axis of the nail-hole. Hinge or bracket.

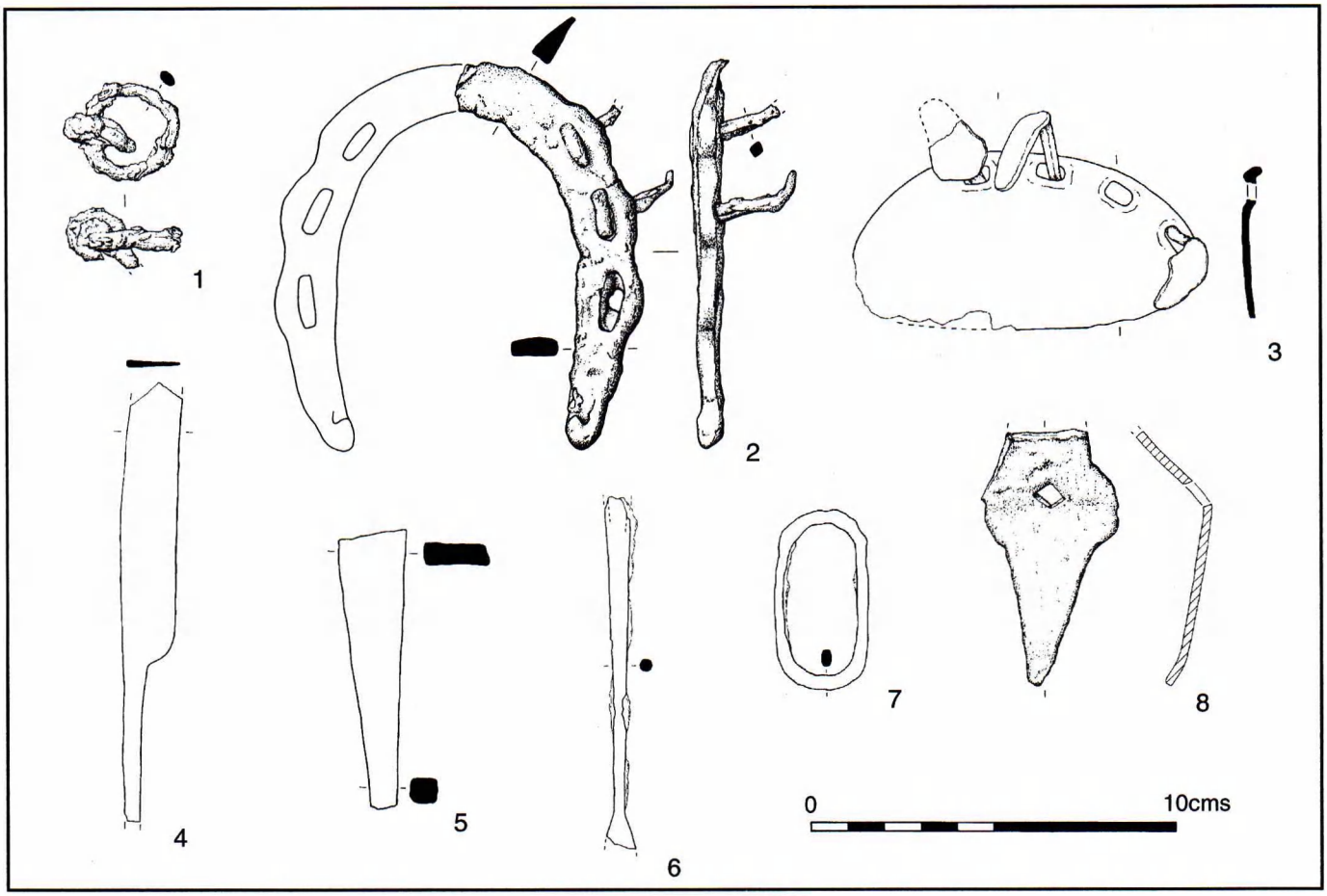

Fig.10 Objects of iron

The group of iron objects, although not particularly unusual, is significant considering the limited area investigated, and is a reflection of the settlement which produced the debris. The quarry site at Sea Mills produced a small collection of iron objects (Bennett 1985, 32) although doubtless other areas at that site were used for waste disposal, perhaps closer to the main settlement. The Roman villa excavations at Marshfield and Gatcombe revealed a variety of domestic items and tools (Branigan 1977, 114 and Barford 1985, 175). A small collection of iron objects are recorded at the Kings Weston Roman villa site (Boon 1950, 53).

Iron Nails

There were 290 iron nails recorded throughout the site from all periods, though Period IV and Period V accounted for the majority.

The nails were mostly square-shanked with rounded heads, although, a few nails appeared to have a rectangular-shaped head. They varied between 40 and 100mm in length and mostly dated to the third and fourth centuries.

OBJECTS OF LEAD **by Eric Boore**
(Fig.11)

Ten lead objects were recovered from the site (see Archive), six from Period V. They included sheet off-cuts, and fragments of possible post-medieval window cames, from period IV. The thicker objects, SF 211 and 213, may be remnants of lead weights. There are two definite objects, SF 289 and 370, both of Romano-British date.

1. Circular lead disc of 115-110mm diameter and 20mm thick. The edge is bevelled to 105mm diameter. Weight is 1.65kg. There is a slight raised lip on the wider surface giving a shallow dished upper? face. On the lower, narrower, inside? face are various impressions left from the original casting, perhaps in a stone mould. The impressions may be of fossils, wood or even iron objects. The latter appear to have been small tapered iron nails which acted as a trivet between the cast and the mould, facilitating the removal of the cast from the mould. They were subsequently removed from the cast.

The lead used to produce this and other objects was probably obtained from the mines for lead and silver at Charterhouse on Mendip (Hebditch and Grinsell 1974, 26, and Bird 1987, 66). SF 289 may indeed be an ingot but apparently without any inscriptions. Similar lead objects recorded from Fishbourne, although somewhat smaller and with a central hole, are described as perforated weights (Cunliffe 1971, 144, Fig.66, 8-11). A lead disc of equal dimensions and similar weight was found at the Roman fort at South Shields (Croom 1994, 192 Fig.7.9, 89). A slightly

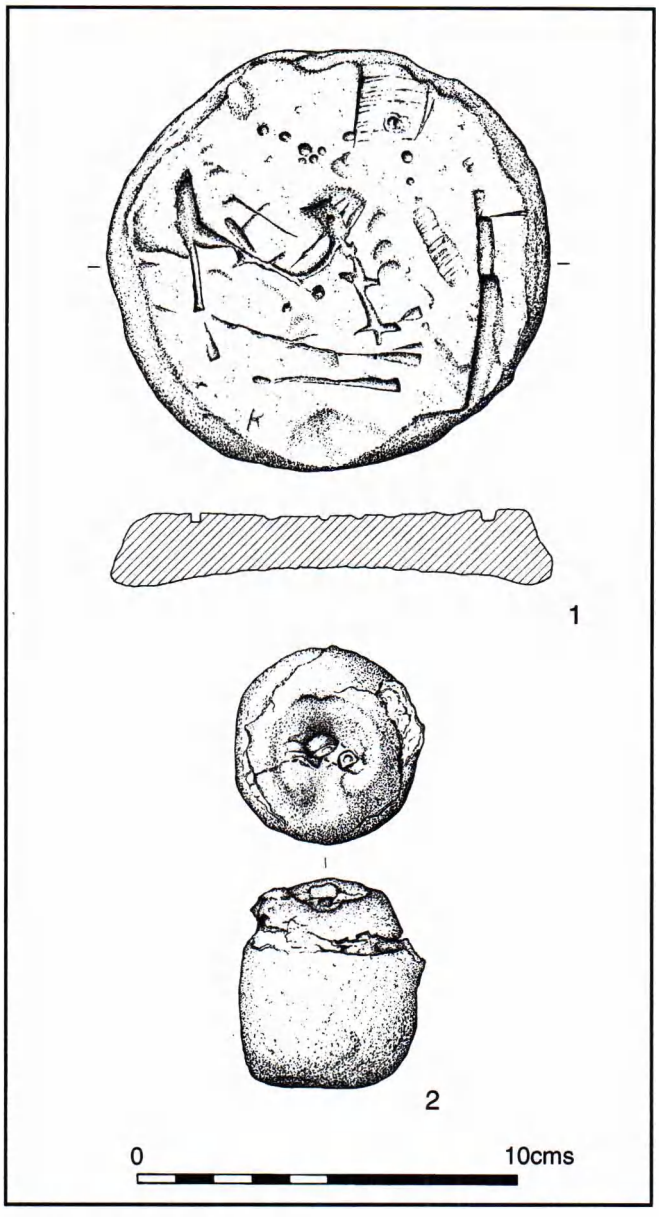

Fig.11 Objects of lead

smaller lead disc recorded at Colchester is suggested as possibly representing a lid from a small lead burial canister (Crummy 1983, 168-4696, Fig.208). SF289 Context 150 Period II

2. A pear-shaped cast lead object with bevelled and dished narrow end containing a stub of an iron suspension loop. The object is damaged around its upper outer circumference. The present weight is 0.70kg. Height of the object is 54mm with a widest diameter of 48mm tapering to 32mm. There appear to be no markings on the object.

Probably a steelyard weight found in the earliest fill of quarry pit 167 (Bédoyère 1989, 64 and Fig.38). It was found in association with a bow brooch, SF 367, dated to the 2nd century. Steelyard lead weights are recorded at Chew Valley Lake (Rahtz and Greenfield 1977, 294 and Fig.115) and at Colchester (Crummy 1983, 101 and Fig.105). A steelyard complete with two lead weights was found at the Roman villa excavations at Marshfield (Barford and Hughes 1985, 167 and Fig.53), and a marked lead weight dated to the early to mid second century at Gloucester (Heighway and Vince 1983, 188, Fig. 108). SF370 Context 166. Period II

THE COINS by Rosie Clarke and Keith Sugden

The site produced a large number of coins, but most were in poor condition and of low denominations. There were a large number of late third to fourth century barbarous radiates and Æ 4 coins recovered, with a terminus indicating that the site was occupied until the late fourth century. The imitation (after 43 AD) Claudian as, SF189, was the earliest coin found, and similar coins have been discovered at nearby Sea Mills (Ellis [1987], 60). It would appear that the quantity of coin brought in to Britain was insufficient to meet demand from the Roman forces, which led to the production of large quantities of local copies in different styles (Seaby 1985, 15). The silver (AR) antoninianus of Postumus, SF 325, is unusually heavy and of good style.

The small hoard, SF 182-6, was found within a timber structure at the side of the road, and it is probable that the Æ sestertius of Marcus Aurelius, SF 205, found nearby was associated with it. This group of coins must have been deposited some time after 211 AD. Similar finds in the area include a hoard of six coins struck between 330 and 337 AD, found in Room IV of the Kingsweston Roman Villa in 1947 (Boon 1950, 15); almost all the other coins found on the villa site were of third to fourth century date. A similar collection of 55 Roman coins, donated to Bristol Museum by Mr Cedric Pritchard in 1962, was said to have been found at Blaise Castle and Blaise Hill (Boon 1963, 7). Of the seven coins found in the 1957 excavations of the Roman temple at Blaise Castle, six were of 4th century date (Boon 1958, 168).

Site finds of coins of little intrinsic value are generally abundant, because they did not justify the same effort to recover them that higher value coins merited. Larger coins also tend to be scarcer than small ones (Casey 1980, 27).

Context 3. Period V

SF 34 Late medieval Æ Flemish jetton, probably struck in Tournai (now in France), illeg.

SF 68 Æ 3, House of Constantine (4th century AD), illeg.

Context 4. Period V

SF 33 Barbarous radiate of late 3rd century AD, illeg.

Context 5. Period V

SF 38 Barbarous copy, antoninianus of Tetricus I (270-3 AD), illeg.

SF 102 Barbarous copy, antoninianus of Tetricus II (270-3 AD)
Obv: TETRICVS ---

SF 163 Æ 3, House of Constantine (4th century AD)
Obv: --- NVS--
Rev: Emperor standing

Context 9. Period V/IVa

SF 77 Barbarous copy, antoninianus of Victorinus (268-70 AD), illeg.

SF 80 Barbarous radiate of 3rd century AD, illeg.

SF 107 Barbarous copy, antoninianus of Tetricus II (270-3 AD), illeg.

SF 129 Æ centenionalis of Magnentius (350-3 AD), illeg.
Rev: Large Christogram between alpha and omega

SF 166 Barbarous copy, antoninianus of Tetricus II (270-3 AD), illeg.
Rev: Spes

SF 182 Æ sestertius of Faustina Junior (wife of Marcus Aurelius, married 145 AD)
Obv: ---TINA ANTONINI AVG PII
Rev: Legend illeg. Altar

SF 183 Æ sestertius of Crispina (wife of Commodus, married 177 AD)
Obv: CRISPINA AVGVSTA
Rev: Legend illeg. Ceres standing l.

SF 184 Æ as of Septimius Severus (193-211 AD), illeg.
Rev: Roma seated

SF 185 Æ sestertius of Hadrian (117-38 AD), illeg.
Rev: Uncertain goddess standing l.

SF 186 Æ sestertius of Commodus (177-92 AD)
Obv: AVREL COMMODVS ---
Rev: LIBERTAS AVG IMP---. Libertas standing holding purse

SF 373 Æ antoninianus of Aurelian (270-5 AD)
Obv: ----AVG
Rev: CON ----. Concordia standing l., altar at feet

Context 11. Period V

SF 59 Æ 4, House of Constantine (4th century AD) of Gloria Exercitus type, standard between two soldiers, but illeg.

Context 15. Period V

SF 86 Æ 3, House of Constantine (4th century AD), illeg.
Rev: Victory standing l.

Context 16. Period V

SF 98 Æ 3, of 4th century AD date, but illeg.
Rev: Victory advancing l. Mint of Cyzicus (Turkey)

SF 169 Æ halfpenny of George II, young head (1729-39 AD), illeg.

SF 180 Barbarous copy of 4th century AD Æ 3/4 of two victories type, illeg.

Context 26. Period IVa

SF 216 AR antoninianus of Valerian II (253-5 AD). Posthumous issue
Obv: DIVO VALERIANO CAES
Rev: CONSECRATIO. Funeral pyre RIC 10

SF 229 AR denarius of Severus Alexander (222-235 AD).
Obv: -- CM SEV ALEXAND AVG
Rev: AEQVITAS AVG. Æquitas standing l. holding scales and cornucopiae

Context 61. Period IVa

SF 188 Æ 4, House of Constantine (4th century AD), illeg.
Rev: Seated figure

SF 189 Local imitation of 1st century AD Æ as of Claudius, Minerva reverse, illeg.

Context 62. Period V

SF 191 Elizabeth II penny, 1971

Context 71. Period III

SF 205 Æ sestertius of Marcus Aurelius (161-80 AD)
Obv: IMP CAES M AVREL ANTONINVS AVG P M
Rev: SALVTI AVGVSTOR TRP XVII. Salus standing l., feeding snake on altar. COS III in ex.
RIC 843

Context 73. Period IVa

SF 231 Barbarous copy, antoninianus of Victorinus (268-70 AD) or Tetricus I (270-3 AD), illeg.

Context 76. Period III

SF 243 Barbarous copy, antoninianus of Tetricus I (270-3 AD), illeg.

Context 97. Period IV

SF 245 Æ 3, House of Constantine (4th century AD), illeg.

Context 101. Period IV

SF 249 Æ 3 of Valens (364-78 AD)
Obv: D N VALENS PF AVG
Rev: SECVRITAS REIPVBLICÆ. Victory advancing l.

Context 114. Period IV

SF 347 Æ 3 of Constantine I (307-37 AD)
Obv: ---NVS AVG
Rev: GLORIA ROM--. Emperor dragging captive

Context 139. Period IV
278 Barbarous radiate of late 3rd century AD, illeg.

Context 141. Period III, Area D
SF 363 Æ coin fragment, almost certainly of a late 3rd century AD barbarous radiate, illeg.

Context 145. Period III
SF 286 Æ coin fragment, almost certainly of a late 3rd century AD barbarous radiate, illeg.

Context 150. Period II
SF 302 Barbarous copy, antoninianus of Tetricus I (270-3 AD), illeg.
Rev: Victory standing l.

SF 304 Æ coin fragment, almost certainly of a late 3rd century AD barbarous radiate, illeg.

SF 306 Barbarous radiate of late 3rd century AD, illeg.

SF 307 Metal disc - probably not a coin

SF 309 Æ 4 of Constantine II (337-40 AD)
Obv: ---NVS IVN --
Rev: Legend illeg. Gloria Exercitus type, with two soldiers standing either side of labarum.
Mint of Trier

SF 331 Æ coin fragment, almost certainly of a late 3rd century AD barbarous radiate, illeg.

SF 333 Æ coin fragment, almost certainly of a late 3rd century AD barbarous radiate, illeg.

SF 348 2 coin fragments, almost certainly of late 3rd century AD barbarous radiates (perhaps from one coin?), illeg.

Context 158. Period II
SF 322 Barbarous copy, antoninianus of Victorinus (268-70 AD), illeg.

SF 343 Æ coin fragment, almost certainly of a late 3rd century AD barbarous radiate, illeg.

Context 161. Period III
SF 318 Æ 4 of mid-4th century AD, illeg.

SF 325 AR antoninianus of Postumus (259-68 AD)
Obv: -OSTVMVS PF A--
Rev: Legend illeg. Victory standing, captive at feet.
Weight 4.322 gr.

SF 372 Barbarous copy, antoninianus of Tetricus II (270-3 AD), illeg.

SF 374 Æ 4 of mid-4th century AD, illeg.

Context 161/2. Period III
SF 313 Barbarous copy, antoninianus of Tetricus I (270-3 AD), illeg.

OBJECTS OF BONE (Fig.12) by Eric Boore

The site produced only one worked bone object.

1. Turned bone decorative fitting, possibly a knife handle, part of a shaft of a long bone from a medium/large mammal. Length 47mm, external diameter 27mm, internal diameter 18mm. The bone is roughly hollowed out inside with a tapered or waisted internal surface, 12.5mm in depth, at one end. The end faces are slightly chamfered towards the hollow and bear traces of concentric lines. The outer surface of the object has a polished appearance, and is decorated with alternate concave and convex bands which vary in width from 4mm to 7mm separated by single or double beaded bands 1mm thick. It was recovered in three pieces, though still together in-situ, the breaks having occurred in antiquity.

The internal tapering sides at one end may have been to accept a bung or pommel, or simply reflect how the object was held in the lathe. Its short length with chamfered ends suggests that it may be part of a composite object, perhaps with different material between the bone elements enhancing the decorative effect of a knife or dagger handle.

A similar turned bone handle complete with iron knife and 'plug' of oak was found at Chew Valley Lake and is dated to the late third to mid fourth century (Rahtz and

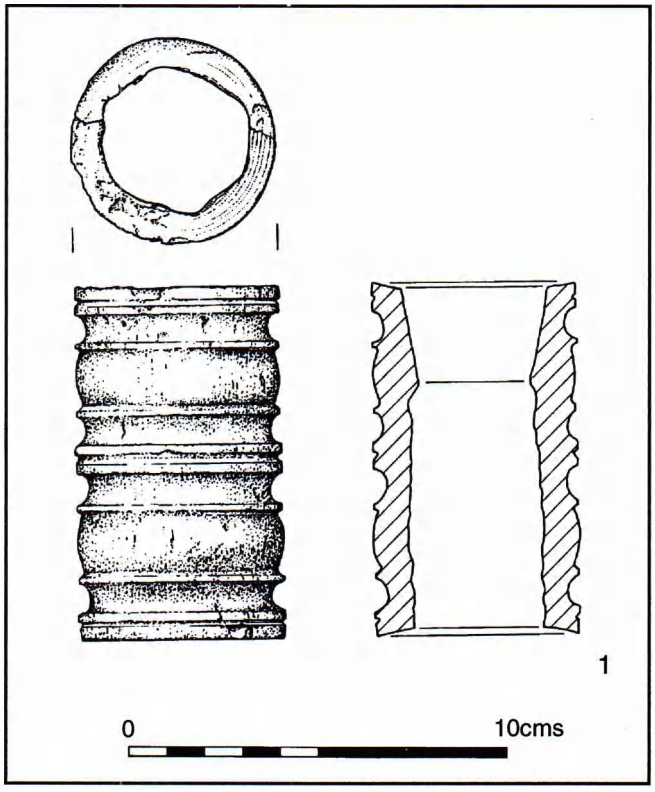

Fig.12 Bone object

Greenfield 1977, 277 Fig.109, 1). Similar turned bone objects are recorded at Colchester and described as 'convex mounts with spool-and-bead decoration' and dated to the fourth century (Crummy 1981, 277 and Fig.2, 17 and Crummy 1983, 158 and Fig.191, 4374-4378). SF194 Context 150. Period II

OBJECTS OF FLINT **by Vince Russett**
(Fig.13)

The flint group is of mixed dates and typical of an assemblage from an area frequented (for agricultural use, for example) over a long period during the Neolithic and Bronze Age. A maximum of six flints may have Mesolithic affinities, and one may be of earlier date. There is no evidence of prehistoric occupation or flint knapping at the site. The poor quality of both raw material and knapping technique in the later prehistoric period is noteworthy.

Introduction

The study of flint assemblages has undergone an almost revolutionary change in recent years, with a decrease in emphasis on technical cataloguing of detail which does not apparently reflect genuine intended differences in preparation and use of tool forms, and a decrease in the certainty of identification of date ranges of assemblages through the presence of type-fossils, especially where the assemblage is small in size.

Edge wear and anthropological studies have yielded important information regarding the uses of flint implements, but have certain drawbacks in that they assume that conditions in the prehistoric period in Britain were at least similar to those in the investigated circumstances. The existence of finely worked arrowheads and spearheads in imitation of metal implements in the middle Bronze Age, for example, does show that in some instances there was an intention to conform to an ideal form, rather than a simple reaction to utilitarian needs. This means that the deliberate creation of tool forms at one period in a certain style still has some validity as a means of dating evidence, but only in the broadest of terms.

For reasonable certainty in dating and charcterising a flint assemblage, large numbers of items (certainly hundreds, preferably, many thousands) are required: in the case of small assemblages of mixed date, such as those of the present group, it is possible to make certain fundamental statements concerning occupation of / use of / visits to the site, and in the current state of knowledge of prehistoric occupation in the Bristol region, this is an important achievement in itself.

In the absence of any identifiable contexts or structures of pre-Iron Age date, or any evidence from the assemblage of pre-Iron Age occupation or flint-working, it is assumed that all flints represent casual losses. No attempt has therefore been made to analyse flint types or dates against contexts. It may be worth plotting the findspots to check for any high density areas of flint (although, even then, it should be remembered that without definite evidence of occupation, this may represent no more than the availability of higher volumes of contexts at these particular areas).

The Assemblage

The assemblage of flint from the Lawrence Weston site is unusual, in that no fragment (except two that may well be of modern origin) is over 1.5cm in length.

The flint of probable prehistoric origin also has an unusual common detail in the presence of hinge fractures upon many of the struck flakes and tools. These are generally taken to be evidence of poor knapping technique, using inappropriate tools, or of poor quality flint, and it is probable that there is an element of both in this assemblage. In particular, there are a number of pieces (such as the fragment SF 244, hinge fractured, and subsequently given a crude scraping edge) with evidence of very poor technique, as opposed to a very few (principally the arrowheads, the possible microburins and one or two scrapers) that have finer work.

The smallness of the flint fragments probably indicates a scarce resource being worked to its limits at the time of knapping: as there is no natural flint (except for river derived materials) within many kilometres of the site, this is hardly surprising: evidence from other sources in Avon (eg Russett 1985) may point to the increasing difficulty in obtaining flint in the late Neolithic and early Bronze Ages in the area.

The sources of the flint/chert in the study are widespread, although the great majority appears to be of Wessex chalk flint origin. There is a single example of Portland chert, SF 181, one of an unidentified dark brown chert, SF 311, a fragment of probable Brendon chert (object 5) and a small number of fragments probably derived from the gravel of the Severn river-terraces, at least some of which are unlikely to be prehistoric.

Many of the fragments from Lawrence Weston, even where there is no evidence for utilisation, have some edge damage, probably resulting from cultivation and other soil movement. This makes it difficult to identify smaller tools without microscopic examination, and has led to initial misidentification of some flints as microliths, when they are in fact simply small badly edge-damaged flakes.

It seems unlikely that any flint knapping and tool preparation took place on the site. Although there are three so-called 'core rejuvenation flakes' in the assemblage (flakes struck from a core in the preparation of a more suitable edge for the continuing detachment of flakes), at least two of these have been subsequently used as tools, after scraper edges were worked onto them, SF 312; SF 314. The most telling evidence, however, is the complete lack of any flint cores, of any type or date. Even in an assemblage of this size, at least one or two might be expected if knapping and tool preparation was occurring at the site. This may also be indicated by the very high ratio of tools and utilised flakes to waste in the assemblage (23/86 = 27%), although this assumption is complicated by the obvious intensive use of flint down to the smallest flakes where possible.

The type fossils for various periods are also few. Four fragments of flint in the assemblage have the very heavy patination and iron staining that characterise natural or very anciently worked flint. One fragment, SF 192, may well be part of a Palaeolithic blade implement, but others show no sign of retouch, SF 444, no.1; SF 422, while 20 is a natural river-derived fragment.

A group of four possible microburins (waste from the preparation of microliths) occurred, SF 139, SF 197, SF 287, SF 433; only two of these are convincingly of Mesolithic type, SF 139, SF 433i. At least one of these, SF 287, has evidence of secondary use for whittling, which may account for its presence at the site. One other fragment, SF 415, is a microlith of Mesolithic character, although of a type that does not lend itself to exact dating. It should be remembered, of course, that microliths are generally used in groups; the maximum four microburins and a microlith may represent no more than the production and loss of a single arrow. A core trimming flake of Portland chert and with possible Mesolithic affinities was also found, SF 181.

The early Neolithic period is represented by a flake from a polished stone tool, probably an axe, SF 136. As seen in the catalogue, this has a finely flaked surface, which may be from chipping during use, before the detachment of the flake itself. In addition, three steeply angled flint scrapers, while not particularly diagnostic, probably fit best into a Neolithic tradition, SF 273, SF 312, SF 314. The ogival leaf arrowhead, SF 25, (conforming closely to a type identified by Green (1984) as his 3Aj class) fits into a mid-late Neolithic tradition.

A second arrowhead, with a pointed tang and single barb, with working on all surfaces, is difficult to parallel exactly, but is similar to a number seen by the writer in very late Neolithic/early Bronze Age contexts, SF 36. Oddly, neither arrowhead appears to have been used, or at least, not to have hit bone in a large prey animal: neither has completely lost its tip, or has the diagonal fracture so typical of an arrowhead lost in these circumstances. A third worked flint described as an arrowhead is a small broken triangular blade tip (SF 90).

A few other tool forms are represented in the assemblage. Two shallow-angle scrapers fit best into a late Neolithic-early Bronze Age context; two points and four blades with retouched notches complete the retouched tools in the assemblage. These latter are not diagnostic, and could fit into any pre-Iron Age tradition.

One of the core rejuvenation flakes, SF 319, has two patches of so-called sickle-gloss on its bulbar surface. These have been traditionally attributed to wear during cutting of straw in harvesting, but other factors may well cause this gloss, not least chemical attack, and abrasion of other sorts. In this case, the existence of a large number of visible (10x) wear lines across the area of the gloss probably indicates some other type of wear: this is born out by the fact that whereas sickle gloss is normally found around the cutting edges of flint tools, in this case, it occurs on raised ridges on the bulbar surface of the flake, and does not extend to the tool edges. As explained in the catalogue description, this fragment has probably lost its working edge anyway, and it is impossible to be dogmatic about the origins of the gloss in this case. Only one other tool (the flint scraper SF 312) has any gloss, a small area of its working edge.

There are three comparatively modern flints in the assemblage. SF 311 is a curious semi-circular object, prepared with the crudest of techniques on a dark-brown chert with the rounded back blunt, and a sharper straight face opposite. The sharper face is at the narrow end of a triangular cross-section. At the centre of the straight face, repeated striking by a narrow, hard object has detached small irregular flakes, leaving a small notch. This object is probably a gunflint. These objects are often present in flint assemblages, especially from surface collections, but are seldom identified. SF 27, a flint blade probably originally knapped in the Neo/BA period, has subsequently seen use as a strike-a-light: SF 472 is a roughly square flint, crudely knapped and with considerable battering damage to three edges. This is almost certainly a medieval or post-medieval strike-a-light.

The rest of the flint assemblage, either of struck flakes, utilised flakes and blades, or other flint with no evidence of working, is not diagnostic, and typical of the random collection of flints made when an area formerly part of prehistoric landuse is minutely examined by excavation.

Studies on the patination state of flints have shown that this is generally a poor indicator of age dating, probably due to the variation in soil conditions in which flints are found. Patination is understood to be due to chemical attack on the flint surface, depositing oxidised layers of increasingly thick off-white crust. This is enhanced by soil alkalinity: evidence from the Cotswolds in Russett 1985 showed that at least in thin Sherborne soils over Jurassic limestone, patination state is roughly linked to date, however. The flints from Lawrence Weston were assigned to one of six patination groups, increasing from no patination ('1') to heavy patination ('6'). It is clear that the vast majority (95%) fell within groups 1-4, with only 4 fragments being in the category 6. There were too few datable tools in the assemblage to test the linking of patination and date in the groups, but the general light patination is another slight piece of evidence against the Mesolithic dating of the 'microburin' assemblage, all of which fell into class 2 ('light').

Context

The former Avon Sites and Monuments Record does not contain any specific evidence of finds of prehistoric flint implements within 1km of the site, although the existence of the prehistoric monuments on Blaise Castle hill immediately to the south provides an understandable context for the arrival at the site of flint implements and flakes in the later prehistoric period.

There is some evidence that the Avon Levels, although at a lower general OD than today, possessed a swamp/carr landscape in the middle-late Bronze Age, as peats

characterised during works on the Second Severn Crossing archaeological works show (Porter 1990; Russett 1991; GGAT 1992). It is thus in such a context, with slightly higher ground available for arable, and swampy lower ground, exploited for fishing, hunting and reed-gathering, that the Bronze Age component of the flint assemblage may have arrived at the site. There may even be a hint, in the number of notched flakes and flakes apparently used for whittling, of the processing of wood nearby, but this is probably pushing the available evidence too far.

Earlier periods are even less well documented in the SMR, although there records of a number of Lower Palaeolithic implements ('handaxes') on the north-western slopes of the Henbury/Kingsweston hills and in Shirehampton, and the context of the early flake in this group may be shared with these finds.

The Neolithic period (in this area, perhaps 4000-2000 BC) saw large scale forest clearance both in the Somerset Levels (Somerset Levels Project 1975-1989), and in the Cotswolds (Russett 1985). The existence of the axe flake in this group is the thinnest of evidence that the early Neolithic period may have been a time of deforestation in this area, too.

Catalogue of Tools and Utilised Flints

1. SF 472 Thick black flint fragment, unpatinated, and roughly square in shape. Severe battering damage to three sides. Medieval or post-medieval strike-a-light.

2. SF 2 Small, lightly patinated tertiary flake, with small area of possible retouch on bulbar left edge.

3. SF 18 Small tertiary flake, lightly patinated. Notches on both edges have tiny amounts of functional retouch, and then have been subject to use wear, probably functioning as whittling surfaces.

4. SF 25 Pointed, slightly ogival triangular leaf arrowhead, with fairly thick triangular section, now of light to medium patination, made shallower by detachment of a small flake along the spine of the distal side. Fashioned from a poor quality flint, which has led to defects on the bulbar surface, and an area of cherty flint on the left distal edge. Apparent area of polished flint on distal surface is actually differential patination, probably due to refashioning of older tool into an arrowhead. Poorly struck bulbar end has several scars. Working is all from bulbar surface, down the whole left edge, and the lower two-thirds of the right edge, with a possible small lost area at the upper edge of the right side, although the awkward shape here may be due to the original shape of the blank flake. This arrowhead does not appear to have been used: it retains its tip. Neolithic, of Greens type 3Aj.

5. SF 27 Thick secondary bulbar flake, with medium patination. Struck from the face of a core, across pre-existing scars. The fragment has been snapped vertically in half; its left side has scars from the repeated detachment of tiny flakes by striking, possibly from later use as a strike-a-light

6. SF 36 Small arrowhead, in a light grey unpatinated good quality flint. Thick triangular section, with pointed triangular section tang and small pointed barb, the hollow between worked from both faces. Extensive working from bulbar side down both edges from end to end, with only a small portion of the original struck flake surviving at the bulbar end. Area behind the tip worked on the bulbar face, to thin a probable drooping original blank: tip and tip of tang both missing. This finely worked arrowhead is difficult to parallel, but examples in Vorda (1984), and seen in collections from Callow Hill, Axbridge, Somerset in Axbridge Museum, indicate that this arrowhead would fit into a very late Neolithic/early Bronze Age period. Similar to Greens (1984) British oblique type f.

7. SF 51 3 flints, see 51i and 51iii in archive (9.3.7), 51 ii below:

ii) Primary flake, with natural notched distal end. Cortex very dark. One of the points beside the notch subsequently used, as a point or awl.

8. SF 54 Heavily knapped thick flint fragment, light to medium patination, detached as a rejuvenation flake across the line of the flake scars, thus creating a new core platform, and not in the usual fashion. Pale flint, no evidence of retouch.

9. SF 64 Short lightly patinated blade, with worked notch at lower right edge. Tip snapped off, but probably not a microburin: the piece looks from wear to have been a point that has lost its tip. End has a tranchet sharpening, with a worn left bulbar edge.

10. SF 69 A large lightly patinated blade, with pointed distal end, partly retouched. The edges of the tool are heavily damaged, possibly by use for cutting and/or whittling. The tip has been used as a point.

11. SF 76 Bulbar fragment of small blade, with hinge fracture. No retouch, but some damage to the centre of the break indicates possible light use as strike-a-light.

12. SF 90 Small, broken triangular blade tip, light retouch on one side, but not, as claimed, an arrowhead. Light patination.

13. SF 136 Tertiary flake with very low-angle scars, in an unusual pale yellow cherty flint of unknown origin, lightly patinated. An area of coarsely polished surface surviving on the distal surface shows this to be a detached flake from an early Neolithic polished flint axe. A hinge fracture at its lower right edge, and the low angle scars on the distal face,

Fig.13 Objects of flint

indicate that this may be a flake detached during use of the axe. A subsequent small area of retouch on the lower left bulbar face, and the worn and fractured tip adjacent, indicates probable re-use as an awl or point.

14. SF 139 Snapped bulbar end of thin lightly patinated flake, with remnants of working on lower right edge. Possible microburin of Mesolithic date.

15. SF 154 Small secondary flake with hinge fractures at lower left and right sides. small areas of cortex survive at upper right. Small amount of wear damage on edge, probably from use as crude knife. No to light patination.

16. SF 157 Bulbar fragment of small blade, lightly patinated, with small area of retouch on right shoulder. Lower end snapped off, with lighter patinated surface at break.

17. SF 177 Tiny fragment of unpatinated light coloured flint, with a small amount of possible retouch at the tip. Claimed as microlith, but this is extremely doubtful, with the 'retouch' more than likely caused by damage.

18. SF 181 Broken Portland Chert fragment, with many linear scars perpendicular to the axis of the flint on its distal surface. Core trimming flake, possibly of Mesolithic origin, as the form (implying detachment of many long tiny flakes) and the material imply.

19. SF 192 Very heavily patinated and lightly iron-stained fragment of a large blade. Subsequent breakage has lost the bulbar end. From its patination, which resembles other known objects of the date, probably Lower Palaeolithic.

20. SF 197 Thick, heavy, poorly-knapped tertiary flake, with a slight hinge fracture and light patination. Both edges have worked notches, large on the right, small on the left. This is a possible microburin. the right notch appears to have subsequent wear damage, possibly from whittling.

21. SF 200 Thin snapped broad blade, lightly patinated. parallel scars down distal surface. Retouched across the distal left end, with the extreme right end snapped. Use unclear.

22. SF 244 A large (for this assemblage) lump of lightly patined dark flint, showing signs of very crude knapping techniques. An area of cortex at the distal end adjoins a large hinge scar. This flake was probably struck from a large core, as a number of hinge scars are visible on its distal surface. A crude scraping surface has been retouched onto the lower right edge of the flake. A most ungainly object.

23. SF 273 The detached shoulder of a finely worked object in a dark, slightly cherty unpatinated flint. The distal end and left side have carefully worked steep angle retouch, and a small element of cortex at the top indicates that this object was probably never large. Flint scraper, probably of Neolithic date.

24. SF 287 Thick, well-struck blade, with a small area of remaining cortex at top and bottom, and lightly patinated. The distal end has slight evidence of 'nibble'- working in its centre, with a small snapped-off area to the right. This is unlikely to be a micro-burin, although superficially resembling such. The long edge has evidence of considerable wear, possibly from use in whittling.

25. SF 311 Semi-circular flake of dark brown chert, with a triangular cross-section, and a straight edge. There is no noticeable bulb of percussion, and the scars along the rounded back edge are very shallow, with no noticeable ripple scars. The thin flat edge has a central scar, with evidence of repeated damage by a thin object, and detachment of tiny flakes. This is probably a (post-medieval) gunflint.

26. SF 312 A heavily struck tertiary flake, probably originally a core rejuvenation flake, with a deep bulb scar on its distal surface. No to light patination. Steep scraping retouch all around the left edge of the tool, with a small area of retouch at the lower right. The edges are damaged by ?heavy use, and there is a small area of gloss on a protruberance on the right side. Flint scraper, probably of Neolithic date.

27. SF 314 Large thick secondary flake, with no to light patination. Originally a core rejuvenation flake. The upper left edge has crude, steep angled retouch to form a scraping edge, and heavy wear indicating prolonged use. Flint scraper, probably of Neolithic date.

28. SF 319 Probable core rejuvenation flake, with light patination. There are two areas of polish ('sickle gloss') on the bulbar surface, with wear lines visible at 10x magnification. This is not on the working edge (which appears to have been lost) but on two ridges on the face. Its cause is impossible to judge in this case.

29. SF 375 A triangular sectioned secondary dark flint flake, with no or light patination. There is a pronounced hinge fracture, and the left and right surfaces are retouched to form scraping surfaces. The right edge is worked down to the hinge fracture, while the left is only worked on the shoulder, with an area of cortex between the working and the edge.

30. SF 415 Tiny tertiary flake, no to light patination, retouch all down hollow right edge. Microlith, not more closely datable than Mesolithic date.

31. SF 433 Two small flints.

i) dark flint blade, no to light patination, and a pointed distal end, with nibble-working on right surface,

and a snapped left surface. Probable microburin of Mesolithic date.

ii) Small irregular flake of variegated flint. Light patina, distal end having a small worked double notch.

OBJECTS OF STONE **by Eric Boore**
(Fig.14)

There were 31 recorded worked stone objects, although several were subsequently discovered to be natural stone samples. Those not described here may be found in archive.

1. Quern, lower stone of quartz conglomerate with a pitted convex upper surface and uneven base (Ingle 1984, 8 and Barford 1984, 13). Diameter is 340mm, hole diameter 50mm, and thickness 130mm to 140mm at centre. Similar quern fragments were found at Sea Mills (Ellis 1987, 68) and at the small Romano-British farmstead at Cattybrook (Bennett 1980, 176). The dating of this rotary quern stone is provisionally suggested as second to third century, though it is of a type in use throughout the Romano-British period and earlier (Barford 1985, 222), (Fig.14 and Pl.4). SF330, Context 173. Period II.

The stone is a conglomerate, largely comprising rounded or subrounded pebbles of white vein quartz, set in a matrix of reddish-grey sand. It is almost certainly from one of the impersistent conglomeratic bands within the Upper Old Red Sandstone Series Portishead Group (Late Devonian), such as the Woodhill Bay Conglomerate. This sort of stone was much used in making querns in the Roman period around Bristol; good examples are the broken non-rotary quern from Filwood and an upper stone of a rotary quern, both currently displayed in Bristol City Museum. The source would be local: the shore at Portishead or on the Failand ridge. There is perhaps an even closer source, as the conglomerate has a small outcrop on the northern side of the Avon in the Shirehampton-Sea Mills area.

2. Palette of Purbeck Marble used for mixing cosmetics or medicines. Rectangular with bevelled edges. The upper wider face has rounded edges and is 105mm in length and 75mm in width. The bevelled lower surface is 73mm in length and 45mm in width, and the palette is 13mm thick. The larger surface is clearly the working face as it is quite smooth, almost polished from wear, with a concave depression running diagonally across it. The bevelled edges may have allowed the palette to rest within a recessed box or table when in use. Other similar palettes are recorded in Colchester (Crummy 1983, 57, Fig 62) and at the Romano-British farmhouse at Stonehill near Hanham south of Bristol (Russett 1993, 14). The date of the palette is clate third century. SF259, Context 75. Period IV.

3. Spindle whorl in Pennant Sandstone 33mm in diameter and 8mm thick. The central perforation is 7mm in diameter with slight flaring, probably from wear. Similar stone spindle whorls are recorded at Sea Mills (Ellis 1987, 65). Dated to the late third century. SF349, Context 158. Period II.

4. Armlet fragment for an infant made of Kimmeridge shale with internal diameter of 37.5mm. The outer face contains two grooves with the sides tapering inwards. A single concentric line on one side scored with regular stabbing may imitate stitching on a leather armlet. Shale armlets are found in grave deposits of both adult and child burials (Crummy 1983, 36, Fig.38). They have been recorded at the Roman villa sites at Marshfield (Barford and Branfoot 1985, 233 Fig.74), Gatcombe (Horwell 1977, 99 Fig.20), and at the Romano-British settlement of Abonae, SeaMills (Ellis 1987, 68 Fig 33). Romano-British in date, c3rd century. SF364, Context 148. Period II.

5. Stone counter in Pennant Sandstone 34mm in diameter and 7mm thick. The counter has rounded edges and is flatter and smoother on one side from wear, perhaps suggesting use as a gaming counter. There are several possible uses for counters including pieces used in board games, weights, lids or reckoning counters (Crummy 1983, 91). Similar stone counters were found at Sea Mills (Ellis 1987, 68) and Colchester (Crummy 1983, 96). Dated to the late third century. SF 274, Context 139. Period IV.

6. Spindle whorl of Kimmeridge shale. Diameter is 35.5mm, and 17mm thick. Biconical in section with a slightly tapering central hole 9.5mm in diameter. Lathe-turned with smooth surface. Almost identical spindle whorls were found at Gatcombe (Horwell 1977, 99 Fig 20, 339-341) and at Marshfield and Colchester (Barford 1985, 233 and Crummy 1983, 67) and Kings Weston (Boon 1950, 53). Spindle whorls occur on many Romano-British sites in varying materials, including stone and pottery. Provisionally dated to the late third century. SF196, Context 63. Period III.

There are twelve possible whetstones which were found throughout the site, in Periods II, III, IV and V. Whetstones or hones are fairly common finds in the Romano-British period and later (Horwell 1977, 99, and Barford and Branfoot 1985, 226). They were all obtained from local sources within the Bristol region. The whetstones exhibit varying degrees of wear, some perhaps showing continuous use where the scored lines on the edge probably reflect removing the burr from the edge of the tool after using the flat surface for honing. Others may have only been used casually and then discarded. The variety of whetstones may reflect objects discarded elsewhere, and subsequently buried in the disused quarries, and some may have been associated with the quarrying activity itself. A whetstone, heavily scored, was found at Sea Mills (Ellis 1987, 65). The whetstones are dated to the Romano-British period, although some of those recovered from Period V may be medieval. A whetstone was also found in the evaluation trench in 1994 (Boore 1994, Fig.7, 8).

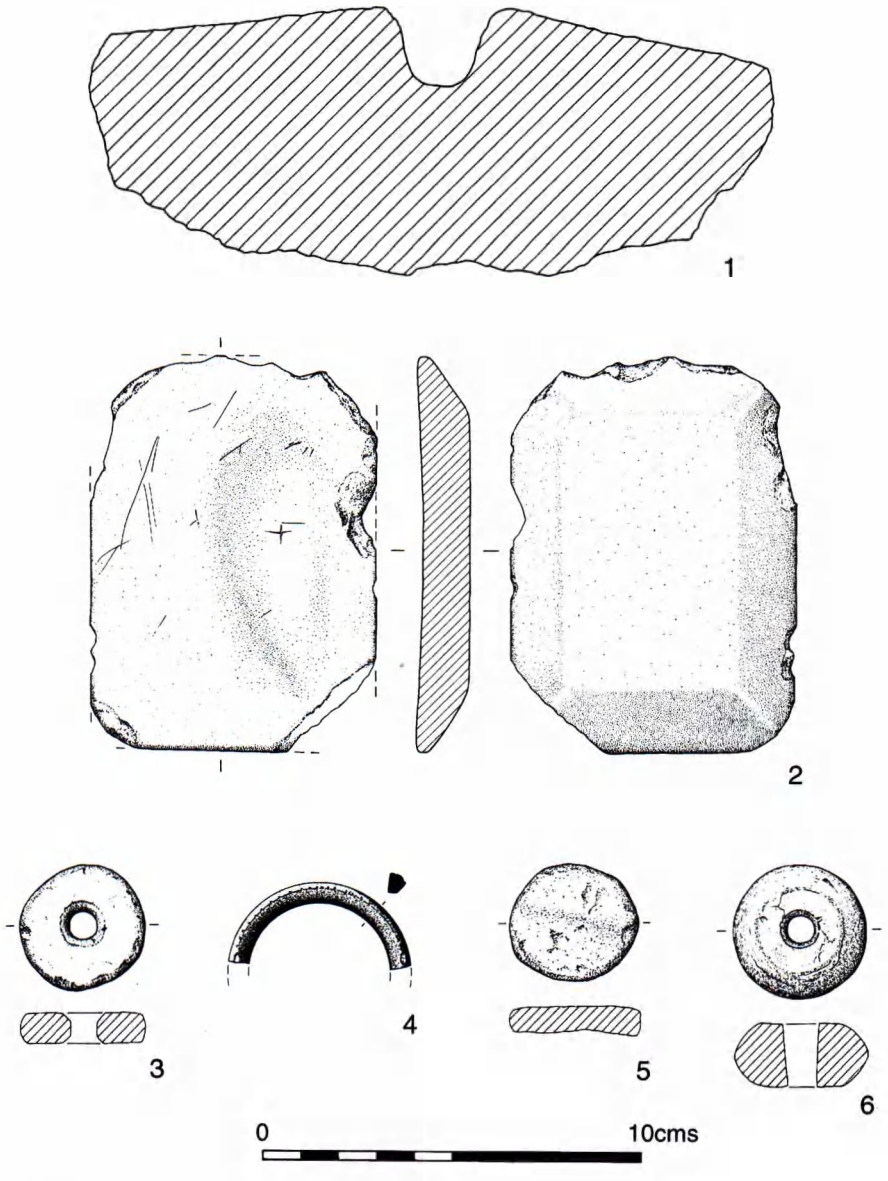

Fig.14 Objects of stone

Plate 4 Detail of quernstone, SF 330, in situ

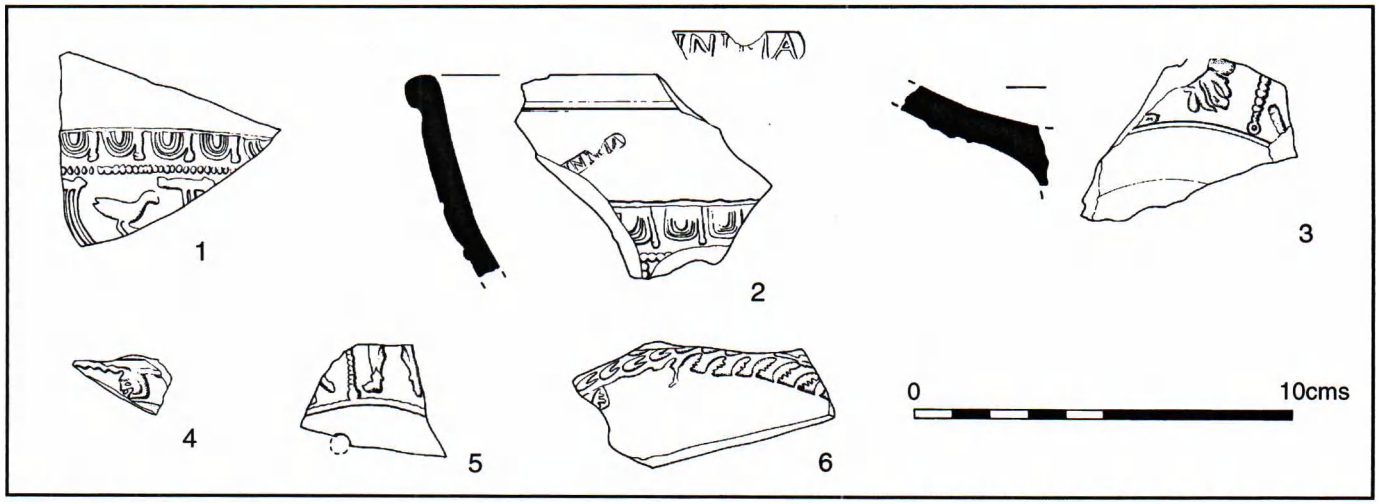

Fig.15 Samian pottery

THE ROMAN AND LATER GLASS by Eric Boore

A small quantity of glass fragments were recovered from the site. The majority were from eighteenth and nineteenth-century wine bottles of thick, dark green blue glass, and fragments of more modern bottles including the base of a beer bottle stamped with the word BRISTOL (SF 464). Most of these finds were from Period V and other similarly late fragments were intrusive finds within earlier contexts. Details are to be found in archive.

THE SAMIAN POTTERY by D R Evans

The site produced a relatively small quantity of samian ware, few forms are represented by more than two vessels and there are no 'sets'. At first sight these factors would appear to make any chronological comments invalid, however, there is considerably more second century (indeed later second century material predominates) than there is first century material. Such a balance goes against known import/usage trends (see Marsh 1981) and suggests relatively little samian use in the first century. Although the exact date of Roman impact on this part of the South-West is uncertain, the expectation would be for more Neronian material than is in fact present in this collection (for a discussion of the material from Sea Mills and the earliest date for the occupation there see Rodwell 1985) which may reflect the type of site or its 'frontier' position at this time. Although here is perhaps not the place to re-examine the samian distribution curve and quantities of samian at Sea Mills the material examined by Rodwell (1985) which shows a marked fall during the second century merely reflects known import trends (Marsh 1981).

While samian alone is not a good indicator of third to fourth-century occupation, the quantity of later second century material almost certainly indicates occupation during the first part of the third century.

There is a certain amount of conflict between the contexts for Period II (Iron Age-Early Romano-British) and the material from these contexts which is almost exclusively second century. The quantities are not large and the material is often fragmentary. If these contexts must be early on stratigraphic/other finds' grounds, contamination may be considered as the most likely explanation.

There are a small number of rarer vessels including an inkpot and a possible flagon to be noted within this collection.

Samian Pottery Catalogue (Fig.15)

Only the illustrated material is described here. A full catalogue of the Samian found on the site will be found in the site archive. Unless otherwise stated all central Gaulish vessels date cAD110/20-180/200.

1. Form 37 from Lezoux, only a fragment of the upper frieze survives, a rose-tongued ovolo with dotted line below a double-banded festoon topped with astraguli, contains a small bird too blurred for precise identification. Assignment to a particular potter as is often the case with South Gaulish vessels is difficult. Flavian. A vessel such as this would not be out of place in the Pompeii hoard (Atkinson 1914) Context 26.

2 Rim and body of a form 37 from Lezoux, with a stamp ..]NN IM A[.. above the ovolo. Of the decorative scheme only the ovolo and a dotted divider survive. The ovolo was shared by a number of potters including the Cinnamus group and Paturnus and the stamp confirms this as belonging to a Cinnamus potter. A date of 160-180 AD is probable. SF 223 Context 26.

3. Form 37, burnt fragment, part of a panelled design, the details are too badly worn to be certain about identification. Possibly from the same vessel as 26 SF 223 Central Gaulish. Mid to late 2nd century. SF 260 Context 75.

4. Rim form 37 Lezoux, mid to late 2nd century. Fragment from just below the ovolo showing remains of a wavy line and a rather blurred head, possibly of a gladiator or hunter.

The fragment is too small to be certain of the figure but gladiators are common on vessels from La Graufesenque (Hermet 1934). South Gaulish. Probably Flavian. Context 97.

5. Form 37, a fragment from near the base of a vessel from La Matres de Veyre, (Terisse 1968), only a small part of a panelled design survive, the moulding is bold but blurred. The feet of two uncertain figures can be made out. The date of the piece is not in question, however, Flavian-Trajanic. Note the remains of a rivet on this vessel. SF 354, Context 184.

6. Body sherd, form 37, a basal wreath of leaves badly blurred and poorly impressed, probably by one of the X-group of potters who worked at Lezoux in the Hadrianic/Antonine period (Stanfield & Simpson 1958; X1-12) . Context 194.

THE ROMAN COARSEWARE POTTERY

by Janette Sabin

(Figs.16 and 17, Tables 1.1-1.3)

Introduction

The investigation of the coarseware from this modest rural site is of value due to the large amount of sherds found, 8,268 in total, and the information it can suggest about the nature of the site, its function, dating and any parallels which can be drawn with other sites in the area, in regard to the types of fabrics and vessel forms found. The pottery assemblage consisted largely of small sherds which were much abraded in part due to redeposition of the material in antiquity, the site and soil conditions, the latter of which is evidenced by the leaching out of the larger inclusions in some of the fabrics, and possible later disturbance from ploughing and landscaping.

Methodology

The pottery was sorted into stratagraphical periods. These being:

Period II	Iron Age-Early Romano-British
Period III	Romano-British, 1st-2nd Century
Period IV	Late Romano-British, 3rd-4th Century
Period V	Late sub-Roman-Post-medieval

All sherds were examined macroscopically only, and analysed by period in numerical order of context, and separated into the following broad categories:

A Iron Age
B Black Burnished Ware
C Colour Coated Ware
D Greyware
E Orangeware
F Buffware
G Creamware
H Unidentifiable Roman Ware (poor quality)
I Miscellaneous Medieval and Post-medieval Sherds
J1 Roman Tile
J2 Modern Tile
M Mortaria

The number of sherds of each type were recorded, noting the number of rims, bases, handles and decorated sherds (Archive). A summary of the number of sherds of each of

Period	A	B	C	D	E	F	G	H	I	J1	J2	TOTAL
II	99	260	5	464	130	91	1	7	9	0	0	1,066
III	39	272	19	433	118	117	1	24	6	9	0	1,038
IV	127	617	35	1,052	221	172	11	22	99	7	3	2,366
V	74	823	74	1,639	594	210	6	27	224	56	71	3,798
TOTAL	339	1,972	133	3,588	1,063	590	19	80	338	72	74	8,268

Table 1.1 The distribution of Roman coarseware pottery fabric types

Period	Rims	Bases	Handles	Dec. Sherds	Total
II	162	71	3	149	385
III	110	47	0	117	274
IV	273	112	5	302	692
V	321	90	4	259	674
TOTAL	866	320	12	827	2,025

Table 1.2 Roman coarseware pottery form categories and distribution

Fabric Type	Fabric Type No.	Colour	Texture	Description	Source	Period
A	1/1	Black	Hard/soapy	Iron Age	?	V IV III II
	1/2	"	Soapy, pitted	Iron Age/Early Roman: Grey core with many leached out areas. Sparse white and black inclusions	?	IV III II
	1/3	Grey/orange	Hard gritty	Shell tempered well made. Iron Age/Early Roman?	?	IV III II
	1/4	Orange/grey	Hard gritty	Shell gritted with quartz and calcite inclusions	?	V II
	1/5	Grey/orange	Soapy smooth	Open fabric, many inclusions - shell, calcite and black. Thick grey core. Late Iron Age/Early Roman?	?	V IV III
B	II	Black	Hard smooth	Burnished Ware	Dorset	V IV III II
C	III/I	Orange/buff	Fine/Hard	Colour coated	New Forest	V IV III II
	III/2	Orange	Smooth/Hard	Colour coated white/cream or red	Oxford	V IV III II
D	IV/I	Steely blue/grey	Hard smooth powdery	Congresbury 1 Core - red or grey/blue	Congresbury. Ref. Butcombe 10 Chew Valley A	V IV III II
	IV/2	Variable grey	Variable hardness	Congresbury 2 Variable core very pale grey - darker grey or orange with grey central core. Calcite, black and mica inclusions	Congresbury Ref. SM V20	V IV III II
	IV/3	Variable/ grey/yellow	Hard or powdery	Variations on Congresbury 1 Homogenous	Congresbury	V IV III II
	V/1	Grey pale	Hard smooth powdery	Non-defined core. Burnished silver Imitation BB Ware. Mica, black, calcite inclusions	AliceHolt/Farnham? 3rd century Ref. SMV7	IV III II
	V/2	Grey	Coarse hard gritty	Imitation BB Ware. Non-defined core, mica and calcite inclusions, 3rd century	Local?	IV III II
	VI	Grey	Coarse/fine	Open fabric with calcite and black inclusions many leached out	Local? Congresbury	V IV III II
	VII	Grey	Soft/smooth	Internally yellow/grey with darker grey central core	Ref. SMV9. Possible variation of IV/2	IV III II
	VIII	Grey/black surface	Hard/smooth	Black surfaces, pitted, silver mica dusted, homogenous grey core	?	III II
E	IX	Orange	Sandy	Buff surface, orange or grey core, sparse mica and clay inclusions, sometimes pitted	?	V IV III II
	X	Orange	Soft/soapy	Pale beige/grey core. Calcite and grog inclusions	Shepton Mallet Severn Valley Ware? Ref. SMV5 1st/2nd century	V IV III II
	XI	Dark red/ orange	Hard/gritty	Fine mica and calcite inclusions. Sometimes grey core, and sometimes fired to brown	Ref. SM II/5	V IV III II
	XII	Orange	Hard powdery	Beige/grey core, grog, mica and calcite inclusions	?	V IV III II
F	XIII	Buff	Hard	Sparse calcite, mica and black inclusions. Sometimes orange core	Ref. SMI/12	V IV III II
	XIV	Buff	Hard smooth	Open fabric, grey core, calcite and black inclusions. Pinholes, possible leaching out of inclusions	Ref. SMI/12	V IV III II
	XV	Beige/brown	Hard powdery	Homogenous throughout. Sparse mica and quartz inclusions	Ref. SM II/5	V III II
	XVI	Beige/brown	Hard smooth	Homogenous biscuit ware, burnished lines, some calcite inclusions	?	IV
	XVII	Beige	Hard smooth	Homogenous, heavily mica dusted. Possible imitation BB ware	?	IV
	XVIII	Buff	Hard powdery	Often blackened, homogenous, tiny mica inclusions. Imitation BB ware	?	IV III
	XIX	Buff	Hard powdery	Often black/grey core. Fine mica inclusions with larger lumps of calcareous material	Ref. SM II/3 Oxford?	IV II
G	XX	Cream/buff	Soft	Coarse, open fabric, black and calcite inclusions, often leached out	Oxford?	V IV III
	XXI	Cream/white	Fine sandy	Homogenous	Oxford 240+ SMI/17	V IV II

Table 1.3 Roman coarseware pottery fabric type series

the broad fabric types from each period can be seen in Table 1.1, and the number of rims, bases, handles and decorated sherds from each period in Table 1.2. Further details of these records may be found in Archive.

Due to the abraded nature of the material it was felt unnecessary to analyse and fabric type all sherds, particularly the plain body sherds and the very small sherds. Mortaria sherds were recorded on to pro-formas under their broad fabric types, the letter 'm' denoting their occurrence, and where necessary these were accurately matched to the Fabric Type Series. It should be pointed out at this stage that no attempt was made to estimate vessel equivalents from the sherds. Also, since the majority of the sherds were broadly uniform in size, the weighing of the pottery was considered to be of little value as the number of sherds of each fabric type was felt to give sufficient information in regard to the predominance of one fabric over another.

The Fabric Type Series (Table 1.3)

The fabric type series was developed during the analysis of the pottery assemblage. The broad fabric type is followed by the fabric type number, colour, texture, brief description, source (if known) and cross-reference, SM referring to the Sea Mills Fabric Type Series (Bennett 1985, 37). This is followed by the period, indicating the stratagraphical period in which these fabric types have been found, thus giving some idea of how widespread certain fabrics were throughout the pottery assemblage.

Catalogue of Illustrated Sherds

The sherds selected for illustration are a representative sample of the assemblage, including decorated sherds of significance, rims and bases of interesting fabric, and those where profiles of vessel form were possible. These have been categorised by stratagraphical period and in numerical order of context. It was felt unnecessary to illustrate all of the numerous jar rim sherds of Black Burnished Ware and Greywares, as these were for the main part fragmentary.

Period II

No.	*Context*	*Fabric*	*Description*
1.	148	VI	Base of jar or bowl? Local fabric.
2.	148	VIII	Rim, flat evert of jar, c3rd century. Possible imitation BB ware.
3.	150	IV/2	Body sherd from a jar with incised wavy line decoration. Congresbury 2, c3rd century.
4.	150	IV/2	Body sherd from a jar with incised wavy line decoration and rivet hole. Congresbury 2, c3rd century.
5.	150	III/1	Colour coated upright beaker. Base, orange fabric with brown colour coat. New Forest c3rd-4th century. Indentation line 25mm from the base.
6.	158	IV/1	Body sherd, wavy line decoration. Congresbury 1. c3rd century. Decoration, style of Wiltshire mid-2nd century.
7.	158	IV/2	Rim sherd of a bag beaker. Congresbury 2.
8.	166	1/1	Bead rim and base of a beaker. Iron Age.
9.	166	IV/2	Body sherd, zig-zag line decoration from a jar. Congresbury 2. Late 3rd-4th century.
10.	166	VI	Body sherd from a storage jar? Line decoration in brown/black. Possible Alice Holt/Farnham. Late 3rd-4th century.
11.	178	IX	Upright rim sherd, line indicates rim, with indentation line 25mm below the rim. Tankard. Severn Valley ware. 1st-2nd century?
12.	173		Fine hard grey, black-coated body sherd of a bi-conical beaker or bowl.'Poppy head' decoration. Medway/Upchurch with Rhineland antecedants. Common in the 2nd century but known from the late 1st-late 2nd century. SF 342.
13.	179	VI	Base of a storage jar. Local fabric.
14.	181	II	Everted rim and body sherd of a jar. BB1?
15.	181	II	Plain upright rim and base of a 'dog dish'. Intersecting arc decoration. Often used as a lid, mid-4th century.
16.	181	XVII	Flange and beaded rim jar. Imitation BB ware.
17.	186	I/1	Bead rim of a jar. Iron Age; c2nd century BC.
18.	194	XII	Handle of a jar or flagon. Mid-2nd century.
19.	194	XII	Upright rim sherd, with indentation line indicating the rim. Double indentation line 25mm below, with acute lattice decoration below this and a rivet hole. Tankard.Severn Valley ware. 1st-2nd century.
20.	194	IX	Beaded rim of a ring-necked flagon. Mid-1st century.
21.	194	IX	Base and body sherd of a tankard. Classic Severn Valley ware with typical basal groove. Incised

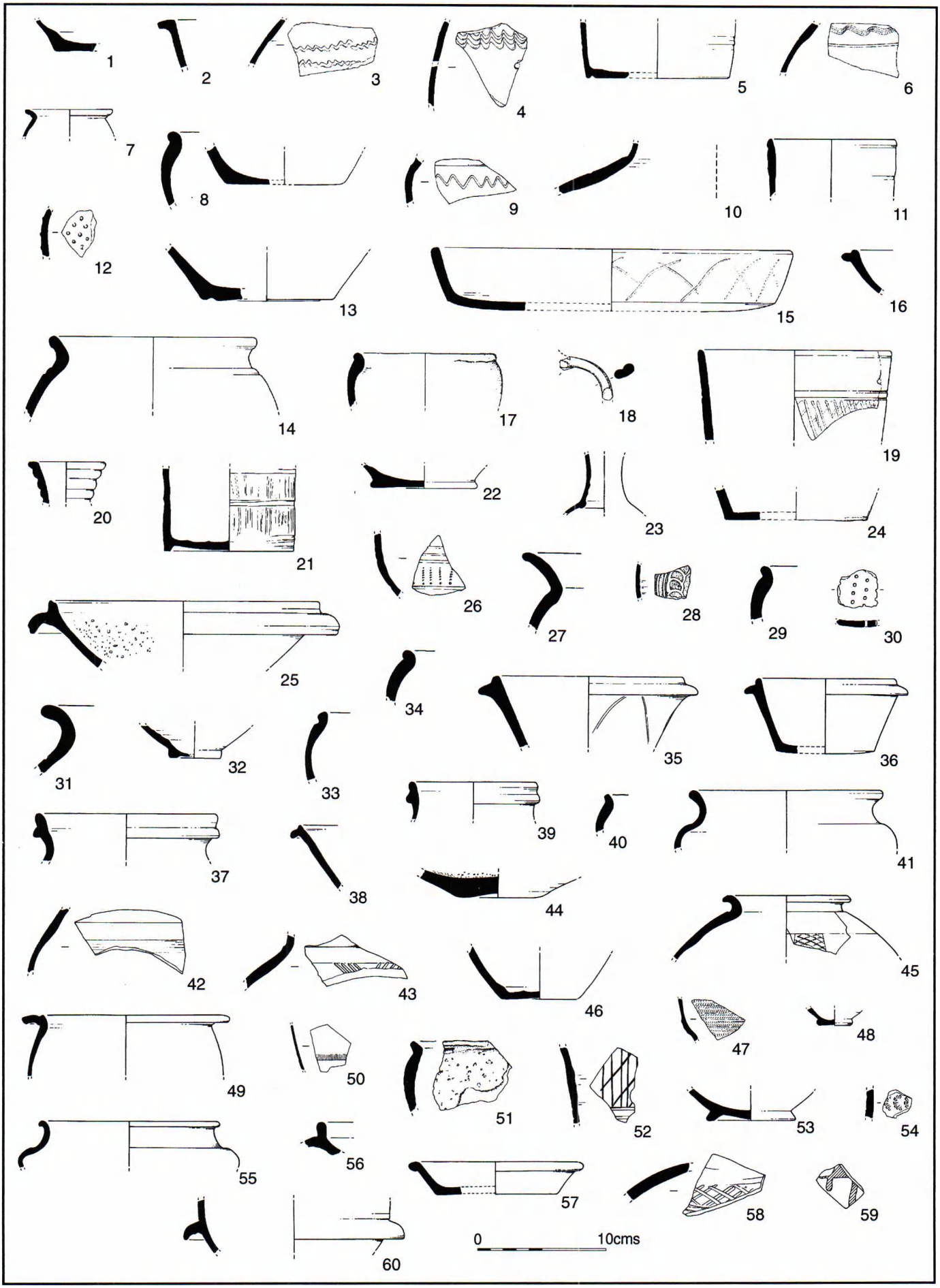

Fig.16 Coarse pottery

			vertical line decoration in a 25mm band. Straight sides indicate a 1st-2nd century date.
22.	211	IV/1	Base of a jar. Congresbury I. c3rd century.

Period III

No.	*Context*	*Fabric*	*Description*
23.	108	IX	Neck of jar or flagon.
24.	141	I/1	Base of a beaker? Iron Age.
25.	145	XII	Flange and rim of a mortarium. Possible cream/white colour coat. Cirencester mid-2nd-late 3rd century? Trituation grits of pink quartz.
26	145	IV/1	Four decorated body sherds of a bowl? Decorated with impressed rows of five vertical dots and a triple horizontal line indentation band. New Forest?
27.	161	IV/2	Everted rim of a jar. Congresbury 2, late 2nd-early 4th century. Common 3rd century.
28.	161		Hard grey fabric with black slip and overlaid with a line of rings in thick white overslip. Possibly New Forest after Moselle Rhenish ware, late 2nd-mid 3rd century.
29.	161	I/1	Bead rim jar. Iron Age.
30.	161	XIII	Fragment of strainer.
31.	208	IX	Rim sherd of a storage jar? with incised groove.
32.	208	XI	Base of a bowl.

Period IV

No.	*Context*	*Fabric*	*Description*
33.	24	II	Bead rim and body sherd. Early BB ware.
34.	24	I/1	Bead rim. Iron Age. c2nd century BC.
35.	26	V/1	Rim and flange of a bowl. Imitation BB ware with arc decoration.
36.	26	II	Bead rim with flange and base of a bowl. Late 2nd-early 3rd century.
37.	26	IV/1	Upright double rim of a jar. Classic form of Congresbury 1. Common 3rd century. Late 2nd-early 4th century.
38.	26	IV/3	Shallow flanged rim of a lid-seated bowl. Variation of Congresbury 1. Late 2nd-early 4th century.
39.	33	IV/2	Double bead rim of a jar or flagon. Congresbury 2. Late 2nd-early 4th century. Common 3rd century.
40.	61	I/1	Rim sherd Iron Age; c2nd century BC.
41.	61	XIX	Everted rim and body sherd of a jar. Imitation BB ware. Possible Oxford ware.
42.	73	IV/1	Body sherd of a jar. Decorated with a burnished band and a band of five incised grooves. Congresbury 1. Late 2nd-early 4th century. Common 3rd century.
43.	73	IV/1	Body sherd of a jar. Decorated with a burnished band and two bands of four incised lines on the diagonal. Congresbury 1. Late 2nd-early 4th century. Common 3rd century.
44.	73	XXI	Base of mortarium. Cream ware. Later type c240-300 AD. Oxford.
45.	75	IV/2	Rolled down rim with tiny obtuse lattice and vertical bands 44mm below the rim. Congresbury 2. Late 2nd-early 4th century. Common 3rd century.
46.	75	IV/1	Base of a jar 58mm diameter. Congresbury 1. Late 2nd-early 4th century.
47.	75	III/1	Body sherd of a bowl: Comb rouletting decoration in bands. Orange fabric, colour coat brown/orange. New Forest c270-400+ AD.
48.	78	III/1	Base of a flask or beaker. Caerleon or New Forest colour-coated ware.
49.	90	IV/2	Flat everted rim sherd of a jar, found in-situ. Congresbury 2. Late 2nd-early 4th century.
50.	90	III/1	Body sherd of a bowl? Fine thin fabric with a band of incised line decoration. Black/brown colour coat. New Forest.
51.	97	I/1	Bead rim sherd of a bowl/beaker. Iron Age. Abraded, inclusions leached out.
52.	102	X	Decorated body sherd of a jar or flagon with lattice design in grey on an orange surface. Ref. SM V/15. Fig.94.

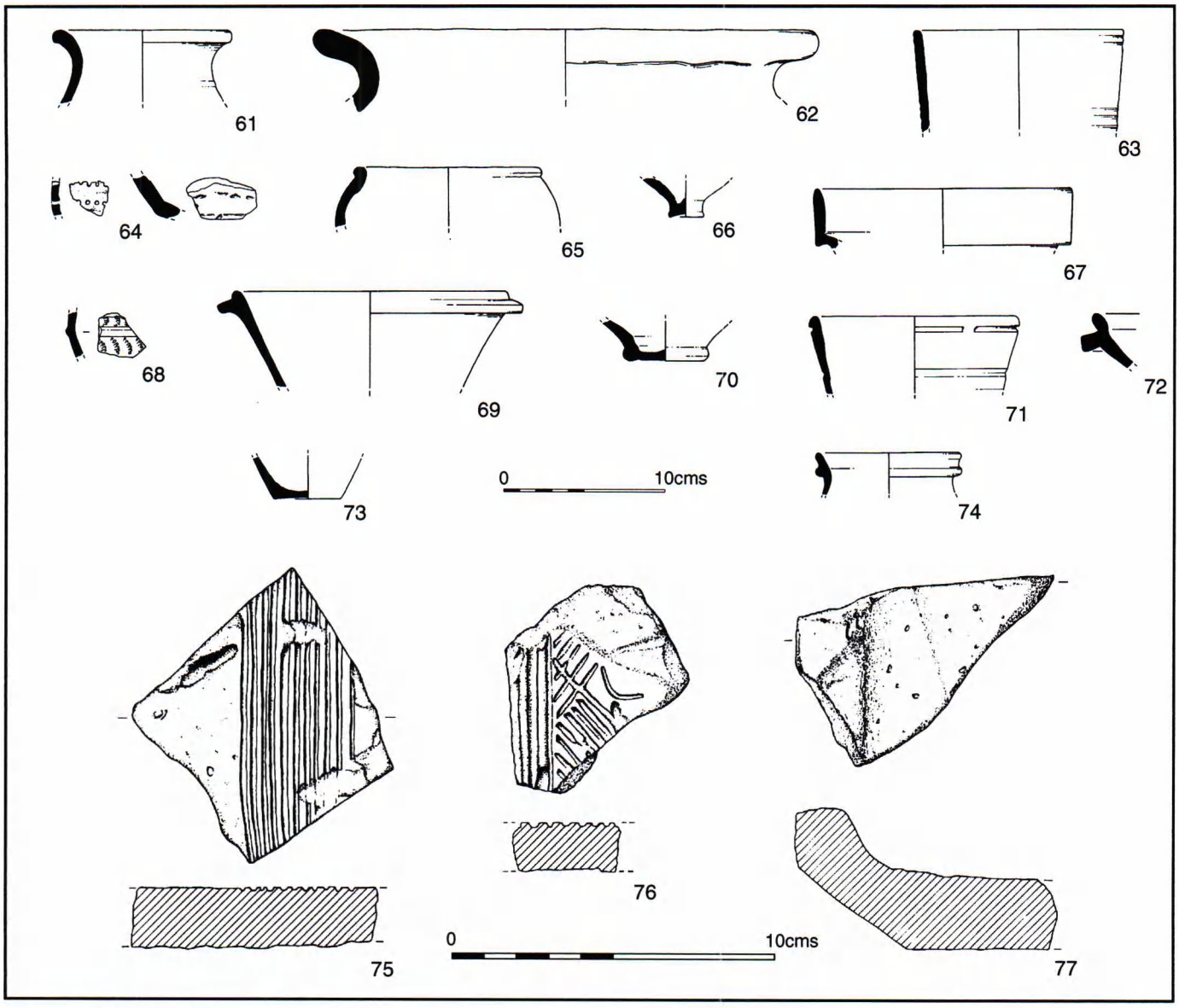

Fig.17 Coarse pottery and roof tile

53.	96	III/2	Base sherd of a bowl. Red colour coated Oxford c270-350 AD.
54.	102	III/2	Decorated body sherd. Orange fabric with red/brown impressed rosettes. Oxford c340-400+ AD.
55.	104	XIV?	Two rolled everted rims which extend to the width of the body of the jar.
56.	152	XXI	Rim sherd of mortarium. Trituration grits of stone and quartz. Cream Oxford ware c240-300 AD.
57.	156	IV/2?	Two rim sherds with bead, and base. Dishes. Congresbury 2. Late 2nd-early 4th century.
58.	156	IX	Decorated line and obtuse lattice sherd. Orange fabric.
59.	210	?	Decorated sherd. New Forest Parchment Ware with red/orange painted line decoration. c270-350 AD.

Period V

No.	*Context*	*Fabric*	*Description*
60.	3	III/2	Flange sherd of a mortarium. Orange/buff fabric with a red colour coat. Oxford?
61.	4	XII	Everted rim of a jar. Orange ware
62.	5	I/5	Large storage jar with everted rim. Iron Age/Roman? SF 147
63.	5	XII	Upright rim, bead indicated by incised line, with incised line decoration 50mm below rim. Tankard. Severn Valley ware. 1st/2nd century.

64.	5	XIII	Base sherd of colander, and sherd with holes (See context 161, Period III, No. 32.
65.	5	I/1	Bead rim jar. Iron Age c2nd century BC.
66.	5	III/2	Narrow based flask. Orange/buff ware with a red colour coat.. Oxford c240-400+ AD.
6.7	5	III/2	Upright rim sherd of a wall-sided mortarium. Imitating Samian form. Oxford c240-400 AD.
68.	5	XII	Body sherd of a bowl? Rouletting decoration with impressed demi-rosettes. Oxford c340-400+ AD.
69.	15	II	Heavy flange and bead rim bowl. Arc decoration. Late 2nd-early 3rd century.
70.	15	III/1	Base of a beaker or flask. Orange fabric with a honey brown colour coat. New Forest.
71.	15	IV/2	Upright rim, bead defined by indentation line. Incised line 25mm below rim. Congresbury 2. Late 2nd-early 4th century AD. Common in 3rd century SF 135.
72.	16	III/2	Rim of a mortarium. Red colour coated. Oxford 270-350+ AD.
73.	16	IV/3	Base of a small jar. Congresbury 3 c3rd century.
74.	16	IV/1	Flanged bead rim of a flagon or jar, possible lid-seated. Late 2nd-early 4th century AD. Common in 3rd century.
75.	161	-	Flue tile in orange micaceous fabric. Period III.
76.	162	-	Flue tile in orange micaceous fabric. Period III.
77.	78	-	Tegula roof-tile in orange micaceous fabric. Period IV.

DISCUSSION

There were certain problems inherent in the analysis of the pottery from the site. Due to sherd size and the much abraded nature of the pottery, identification of fabric types was more difficult. The pottery assemblage which was of mixed composition suggests a site where considerable disturbance has occurred over time, with some intrusive medieval and post-medieval pottery occurring, notably in the later Periods. What follows therefore is largely a descriptive account of what was found aided by Tables 1.1 and 1.2, and any subsequent conclusions that can be drawn.

A preponderance of grey wares was evident, c46% of the total, with the majority of these belonging to the various sub-divisions of Congresbury ware, at its height in the third century, though thought to have been produced from the late second and up to the fourth century. Though grey wares were ubiquitous throughout the stratagraphical periods, significantly larger amounts were found in Periods IV and V. Black Burnished ware made up c25% of the total assemblage, the decorated sherds of this fabric generally suggesting a later date, evidenced by bands of obtuse lattice, and intersecting arc decoration, dating from around the mid-fourth century. Orange wares made up 12.5% of the total, and included an early pink/orange fabric of unknown source, Severn Valley and Oxford wares, the latter of which included sherds of mortaria, both red colour coated, (imitation Samian), and White ware. Severn Valley ware was represented notably by straight-sided tankards, this form being common in Avon and south Gloucestershire, (Bennett, 1985, 40). Buff wares made up c6% of the total, and included a fine mica dusted fabric of possible Gloucestershire origin, which was most evident in the earlier stratagraphical periods. The amount of colour coated ware was relatively small, making up only 1.75% of the total and where it did occur, sherds were very small. Cream wares were sparse, contributing to the total assemblage only c0.3%, whilst the Iron Age and post-Roman pottery each represented 4% of the total. Iron Age pottery was in evidence throughout the stratagraphic sequence, but proportionally higher amounts were found in Period II, consistent with the dating for that period. Of further interest was the amount of Roman Tile found, (c0.8% of the total), amongst which were ten flue tiles, found in periods III and IV. Though proportionally rather insignificant, these may have come from a site of some status in the area.

The majority of wares appear to be local, and though some are in accordance with the Sea Mills Fabric Type Series, relatively few parallels were drawn here (Bennett 1985, 37). Consistent with Dr A J Parker's findings, a higher proportion of light-coloured wares appear in the earliest periods, II and III, which tentatively reinforces an earlier Roman date, in accordance with the stratagraphic dating (Parker 1984, 30).

Of the Roman vessel forms found, these are largely consistent with Sea Mills (Bennett 1985, 40), jars being predominant together with a significant number of 'dog dishes', in Black Burnished ware and imitation BB ware. Bowls and beakers were evident to a lesser extent, flagons being more rare since very few handles were found. Tankards in Severn Valley fabrics were also evident together with a significant number of Iron Age bead rims from beakers or bowls, probably dating to the second century BC. Of the finer wares, a sherd of 'poppy head' decoration of Medway/Upchurch type with Rhineland antecedents, common in the second century but possibly

dating from the late first century, was found in Period II. Also of interest was a sherd of black/greyware, probably New Forest ware after Moselle ware, dating from the late second to mid-third century, which was decoratively overlaid with thick white overslip rings, and found in Period III (No.28). Later Roman activity is evidenced by the larger proportions of BB ware and grey wares, mainly Congresbury ware, which occurred at the site, reflecting similar findings in the region at Sea Mills, Bristol, (Bennett 1985, 37 and Timby 1987, 77), at Gatcombe, Avon, (Branigan 1977, 93); and Ilchester, Somerset, (Leach, 1982, 143). It is clear that until a detailed classification of Congresbury ware is available, with the large amount of Congresbury ware present, little can be derived from its occurrence with regard to dating, since at present its appearance indicates a fairly broad date range. Such a publication would be of great value to our understanding of Roman pottery produced from sites in the region.

CONCLUSIONS

Contamination is evident in all periods though this is proportionally less in Periods II and III where relatively more Iron Age sherds exist and infiltration by medieval and post-medieval sherds is minimal and largely insignificant. The pottery assemblage consisted of mainly small, much abraded sherds suggesting a site disturbed over time. It represents redeposited material probably from a settlement within the vicinity which was used to backfill the former quarry area. The assemblage consists of predominantly domestic pottery with a notable absence of imports, and little to suggest a second century date, though a small quantity of second century pottery does exist. The pottery is very broadly spread over the periods and is mostly of the third and fourth century, mainly local, and of coastal distribution, with Congresbury ware being ubiquitous throughout the periods. Flue tile and ceramic roof tile fragments were also found on site.

THE HUMAN BONES by R Wiggins

The human remains from the site are dated within the Romano-British occupation to the second and third centuries AD. Three discrete subadult human skeletons were discovered, SF 403/467, SF 351 and SF 362, in the upper levels of the quarry pits in Area D. The fourth skeleton, SF 448, was found underneath the cobbled surface in Area A. All skeletons were examined for age and evidence of any pathological lesions or abnormalities.

Preservation

The preservation of the remains was variable. Skeleton SF 362 had the best preservation, with 75% of the expected skeletal components present. SF 351 had 65% of the skeleton present. SF 403/467 had 60% of the skeleton present and an extra right radius and 2 broken extra left and right ulnae. It is possible that the extra right radius and extra left ulna comes from Skeleton SF 351. The extra right ulna is unaccounted for, unless it comes from Skeleton SF 448 with 50% of the skeleton present, as the other skeletons in the area have a full complement of right ulnae.

Ageing

The ageing of human subadult remains relies on three major techniques. The first and most important is dental development, widely believed to be less subject to environmental disturbance than skeletal development (Tanner 1990). Three aspects are examined:

1. Crown calcification
2. Root development
3. Eruption

These developmental stages can be graded for age using a progress graph (Moorees et al 1966), or a visual representation chart (Schour and Massler 1941). As with other ageing techniques, it is well to remember that tooth development charts are using modern living populations as their standard. It is therefore advisable to apply some caution when interpreting the results of the skeletal ageing.

The second method applied for subadult ageing is that of epiphyseal fusion (Gray 1991). Epiphyseal fusion is the process in which the endplates of each individual bone fuses to the diaphysis (middle or growing section). This ageing technique uses the fusion times and patterns that occur during the growth of the skeleton in strict sequence (Fazekas and Kosa 1978; Bass 1987).

The third and probably least reliable method, of ageing subadults is the use of long bone length (Maresh 1955). Long bone length is measured and assigned an age using data from contemporary studies of skeletal age and long bone length. The most commonly employed charts are those by Maresh (1955), and for fetal and neonate skeletons (Fazekas and Kosa 1978). This method is probably less accurate than those described above as height for age can be quite variable, although this applies in older rather than younger age groups.

Dentition was present in only one skeleton, SF 362. This skeleton was also the most complete. The dentition of this skeleton suggested the remains were of a neonate. The long bone length and epiphyseal fusion suggested an age of 9.5 lunar months in utero to neonate.

The other three skeletal remains were harder to age, due to the absence of dentition, and the less complete state of the skeletons. The long bone lengths of skeleton SF 351 indicate an age of 9.5 lunar months in utero to neonate. Skeleton SF 448 was the most poorly preserved, and could only be aged using long bone length. This skeleton also appears to be neonatal, as does Skeleton 403/467.

The ageing of the remains in the neonatal range does not answer the question as to whether the babies were viable at birth, or whether they were stillborn. A method used to determine this is the examination of the state of the cells in the unerupted M1, using scanning electron microscopy (Whittaker 1978). The cells change state once the child

becomes independent of the uterine environment. Obviously the use of this technique depends on the preservation of the dentition, and the expense involved in the analysis.

Pathology

The skeletons were examined for any signs of skeletal and/or dental abnormality or pathological lesion. Obviously, missing sections of the skeleton may display lesions, but these cannot be accounted for. Skeleton SF 362 had mild periostitis of the long bones, but this is commonly seen in infants and is difficult to distinguish from the normal growth process of laying down new bone. Similarly, SF 351 had periostial plaques on the endocranial surface of the skull. In neither case was the appearance of the periostitis florid or pathological. No other evidence of skeletal or dental anomaly was found.

Conclusion

This excavation revealed four discrete skeletons of subadults from the second to third century Roman period. The preservation of the skeletons ranged between 40% and 75% complete. All were aged between 9.5 lunar months and birth to 2 months. It cannot be determined whether the subadults were viable at the time of birth. There was no evidence of any pathology.

During the analysis of the animal bone four fragments of human foetal or neonatal remains were recorded. They were recovered in contexts 16, 150 and 163. A fragment of mandible, without teeth, SF 467, was found in context 150 and is probably part of the skeleton SF 403 recorded in that context. In context 16 there were two fragments of femur SF 465. This context is in Period V but covers the area of skeletons in context 150, SF 403 and 467, and context 184, SF 351. However the femur remains from context 16, occurring in a residual context, were not part of those skeletons in the same area. A femur fragment was also recorded in context 163, SF 466, but was not part of skeleton SF 448 in context 161. This now suggests that the neonatal skeletal remains recovered, allowing for the extra components in SF 403, represent at least four and possibly seven individuals.

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THE STOCKWOOD ENCLOSURE: A GEOPHYSICAL SURVEY

by Jodie P Lewis and David Mullin

INTRODUCTION

The Stockwood "enclosure" (ST 637 692) lies at c.75m AOD on the northeastern spur of Durley Hill. The enclosure has been described as a wide, low bank with an internal ditch and this, combined with its apparent non-defensive location, has led to it being described as a possible henge. A resistivity survey was carried out to ascertain the true nature of the site as part of one of the authors (JPL) PhD research at the University of Bristol. The results reject the interpretation of the enclosure as a henge and instead suggest either a Roman or medieval date for the site. A further, undated ditch, possibly a prehistoric enclosure was also discovered in the course of the survey.

THE STOCKWOOD ENCLOSURE (Fig.1)

The earthwork on Durley Hill may have been noticed by the Rev. John Skinner in the early nineteenth century (Bob Williams, pers com). The site subsequently received little attention until recorded by Tratman in 1973 (Belsey & Ponsford 1982, 2). The site was described as a circular earthwork, c.100m in diameter with some possible outworks, cut by the Whitchurch to Keynsham road. The earthwork was much ploughed down and the eastern half not traceable. Due to the presence of an internal ditch the site was interpreted as being possibly the remnant of a henge monument.

Analysis of the OS small-scale aerial photographs, however, shows a clear feature, astride the road but indistinct on the southern side. The feature appears to be sub-rectangular rather than round (BANES SMR).

During 1976, a Bristol Water Works pipeline was cut through Stockwood, passing through the field which contains the enclosure. This work was watched by Mrs P. Belsey who recovered a late Roman copper-alloy belt buckle at ST 6538 6919, lying on stony ground below the topsoil, c.2m west of the earthworks (Belsey & Ponsford 1982, 2). This buckle was of Hawkes' and Dunnings Type IIA animal-ornamented buckles, a type commonly associated with late Roman military units (ibid).

FIELDWORK 1998 (Figs.2 and 3)

The site was visited by the authors over 23rd/24th June 1998 and an earthwork survey undertaken. The earthwork only survives on the north side of the road in a field used for grazing horses, the south side now lying in a golf course. The survey showed the earthwork to be a gentle curve a maximum of 1m high and 9m wide at the widest point with

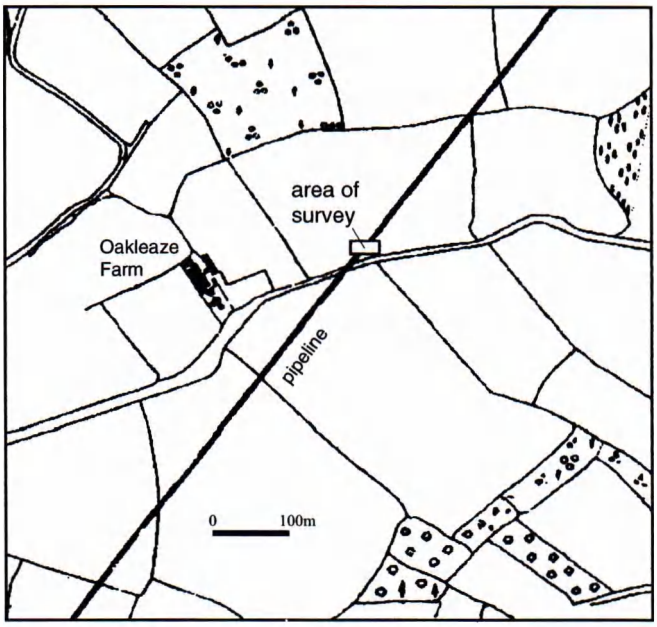

Fig.1 Site location plan

an apparent gap at the north-east. The diameter of the enclosure, if complete, would be c.100m but there was no evidence of an internal ditch.

Subsequent to the earthwork survey, a resistivity survey was carried out at the site. A Geoscan RM15 resistance meter with a twin probe array was used for the survey using a grid size of 20m x 20m and a sample interval of 1m over traverses of 1m spacing. The results were affected by the presence of the Bristol Water pipeline which runs through the field, but a square high resistance feature was found to correspond with the area of the earthworks. A further, unexpected, low resistance feature was also detected running across the northern part of the survey, cut by the pipe trench. This feature was c.2m wide with a diameter of c.64m and lay c.3m north of the earthworks.

Fig.2 North-south transect

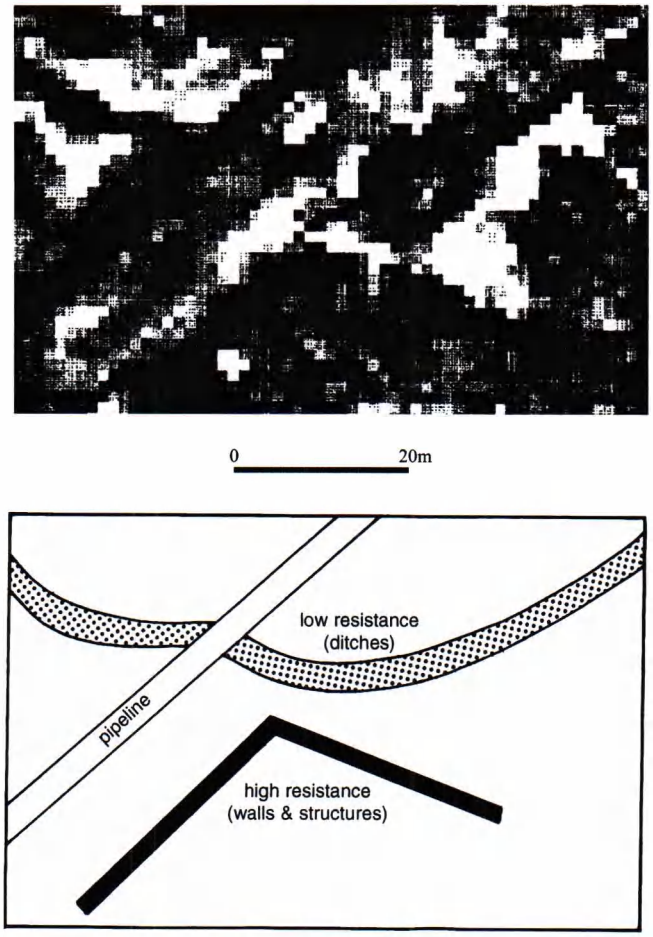

Fig.3 Geophysics results (top) and interpretation (bottom)

INTERPRETATION

The square, high resistance feature in the area of the earthworks at Stockwood appear to be the remains of a building or enclosure which runs parallel with the Bristol Water pipe for c.10m before turning southeast to run under the hedge that borders the Whitchurch to Keynsham road. The date of this building/enclosure is uncertain but is probably medieval or earlier due to its relationship with the road.

During the fieldwork of Belsey in 1976, the then owner of the land, Mr Stowell of Hick's Gate Farm, suggested that the earthworks represented the former end of the Keynsham road (Belsey & Ponsford 1982, 2), and this is another possible interpretation compatible with the geophysical results.

It is again difficult to assign a date and function to the curving, low resistance feature, but its location on the end of a spur overlooking the Avon valley and the morphology of the ditch is suggestive of a prehistoric date. No signs of this ditch were located by Belsey during the watching brief of 1976, however.

CONCLUSIONS

The Stockwood enclosure has been shown by geophysical survey not to be a henge. A definite function and date for the earthwork has not been ascertained, but a medieval or earlier date is suggested.

During fieldwork a further enclosure ditch was detected by geophysics in the same field as the enclosure earthworks. This did not survive as an earthwork and was not detected by Belsey during the pipeline watching brief of 1976. Again it is impossible to be certain about date and function without further investigation but a prehistoric date is suggested on the geophysical evidence.

The authors hope to carry out further work on the newly discovered enclosure ditch in the near future.

ACKNOWLEDGEMENTS

The authors thank Bristol and Avon Archaeology Society of the kind grant of Grinsell Fund monies to help finance the research undertaken at the Stockwood enclosure. Further thanks are due to Bob Williams for help and advice and Bob Sydes of BANES SMR for help with references and information. The landowner of the site, Sue Rich of Oakleaze Farm is also thanked for her patience and permission to carry out work. Finally our volunteers, Helen Rodgers and Sam Wake of Bristol University are thanked for their help, in adverse conditions, with fieldwork at the site.

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AN INTERIM REPORT ON THE EXCAVATIONS AT INNS COURT, BRISTOL, 1997-1999

by Reg Jackson

INTRODUCTION

Inns Court forms part of the Knowle West housing estate on the southern fringe of Bristol. Its name was derived from the medieval house located there and owned in the early 15th century by Sir John Inyn, who attained the office of Lord Chief Justice of the King's Bench under Henry VI. The house survived until the late 19th century when all but its impressive early 15th-century stair turret was demolished and replaced, initially by a farmhouse and later by a vicarage, community centre and church.

In 1996 a scheme was submitted for the redevelopment, over a period of years, of that part of Inns Court occupied by the community centre, Holy Cross church, shops, a public house and various small landscaped areas. Prior to the granting of planning permission for the first phase of the development an archaeological field evaluation was carried out which revealed significant archaeological deposits and structures of Roman and medieval date. A condition of planning permission was the requirement for the excavation of the area to be occupied by the new community hall and church. Subsequently a watching brief was to be undertaken during construction work and a limited excavation carried out on the site of the proposed community garden.

Bristol and Region Archaeological Services undertook the main excavation covering an area of about 1,000 square metres on the site of the new community centre and church. This took place over a ten week period between August and October 1997 (Fig.1). Subsequently a watching brief was undertaken during construction work between May and August 1998. After the demolition of the old community

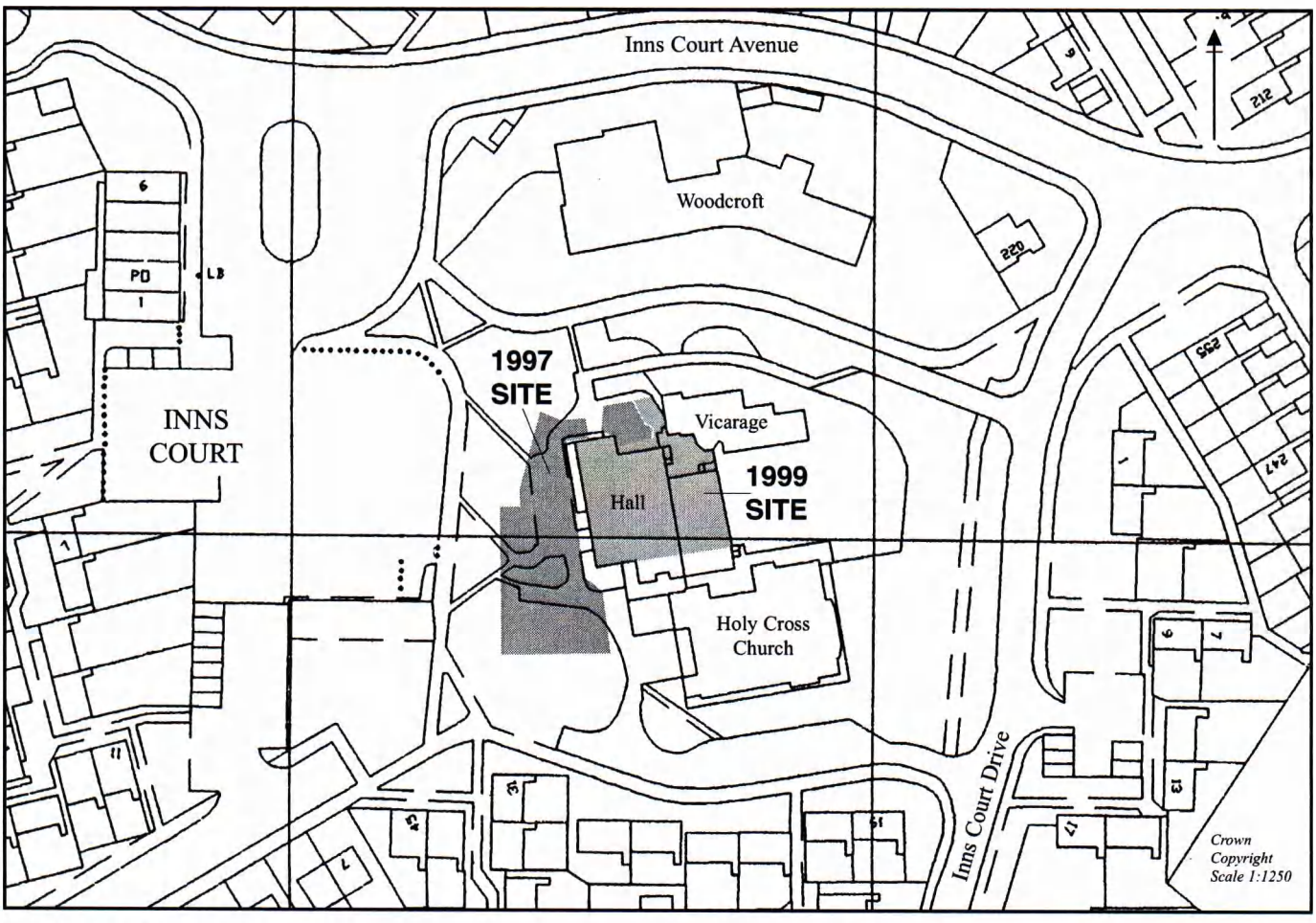

Fig.1 Site location plan

centre in September 1999, a limited excavation was undertaken on its site before the area was landscaped. This latter excavation covered an area of about 600 square metres but, as preservation in-situ of the archaeological features and deposits below the new garden was the preferred option, the archaeological work was restricted to exposing and cleaning the foundations and parts of the floors of the west range of the medieval house.

Further archaeological work will be needed during future phases of the Inns Court development and consequently publication of the final excavation and finds reports will not occur for some time. It is the intention of this interim report to provide an outline of the archaeological discoveries made up to the end of 1999.

THE SITE (Fig.1)

The redevelopment area was defined on the north and south by a cul-de-sac road known as Inns Court Green, on the east by Inns Court Drive and on the west by houses backing on to the former Inns of Court public house site, Berners Close and Langhill Avenue (centred on NGR ST 5877 6020). The cul-de-sac was all that remained of a roughly circular road originally surrounding the church, community centre and vicarage site which had been partly removed in 1976 and its route backfilled and landscaped.

The site lay at a height of between 55m and 58.5m above Ordnance Datum close to the western edge of a spur of land about 1.2km wide at this point. The spur is bounded on the west by the valley known as Crox Bottom, through which the Pigeonhouse Stream flows north to join the Malago Brook and eventually the River Avon, and on the east by the valley of the Brislington Brook which also flows north into the Avon. The spur extends to the north-east ending at the valley of the Avon while to the south it becomes a broad, undulating plateau ending at the lower slopes of Dundry Hill which rises to a maximum height of 233m at its west end above Dundry village.

The underlying geology of the site consists of bands of Lower Lias clay and limestone of the Jurassic period. The limestone was used for the construction of buildings on the site in the Roman, medieval and post-medieval periods and was presumably quarried locally.

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Evidence of quite extensive Romano-British occupation was found in 1982 during machine levelling for Filwood playing fields some 300m to the east of Inns Court (Williams 1983). Although only limited excavation and recording was possible during the destruction of the site a complex series of ditches, foundations and areas of cobbling were exposed.

A rectangular enclosure measuring approximately 44m north/south by 37m east/west at its widest point, was bounded on the south-east and east sides by two parallel ditches, while a wide ditch formed the west edge of the enclosure. A rectangular building occupying the central portion of the northern edge of the enclosure comprised two rooms, with a further room forming a southward projecting wing. The dimensions of the wall foundations suggested that they supported low walls with a timber superstructure. The floors were of hard packed cobbling and an area of larger flat stones, with signs of burning, in the north-east corner of the larger room indicated the position of a hearth. Other areas of cobbling and stone settings suggested bases for timber structures within the enclosure. A 'V'-shaped ditch or gully ran from the central division of the building southwards through the middle of the enclosure and appeared to form the central axis of that part of the settlement.

Outside the enclosure this gully apparently formed the east side of a trackway, with a parallel ditch or gully on the west. Further areas of cobbling indicated that the Roman occupation extended at least 100m to the south, 60m to the east and 20m to the west of the enclosure. The double ditch of the enclosure appeared to cut through a hard packed clay floor bordered by post holes in a roughly rectangular shape, implying it was part of an earlier phase of occupation.

Metal working within the settlement was represented by an area of cobbling which yielded lead and iron ore together with lumps of coal, concentrations of waste metal products including 'trial' lead mouldings, a large quantity of cut coins and six cast counterfeit coins.

The substantial number of finds included marked Samian ware with a production range of c. AD 90-190, bronze brooches and bracelets with a date range from the late 1st to the early 3rd century (but which may have continued in use for some time afterwards), and coins dating from c. AD 138 to 375 with a concentration of identifiable coins in the 3rd and early 4th centuries.

Further Romano-British occupation was found at Filwood when limited archaeological excavations were carried out in 1998 some 100m south of the site of the 1982 discoveries (Cox 1999). A possible double ditch with a stone bank bounding an area of rubble and stone paving, suggested the presence of an enclosed farmstead dating from the 2nd to the 4th centuries.

The medieval history of Inns Court is obscure. Collinson (1791, 284) mentioned a family called Onewyn having been associated with Inns Court in the 14th century and stated 'In this manor is an ancient house called Inyns Court which in 1353 belonged to John Onewyn ... In this house there are arms in painted glass, a feffe azure between four unicorns' heads, three in chief one in base, impaling azure a chevron ermine between three lions rampant, argent'.

The Onewyn or Unewyne family were involved in a number of Charters of Feoffment concerning Bishopsworth during the 14th and 15th centuries. In 1352 John Onewyn was witness to an agreement between William Arthur of Clapton in Somerset and Nicholas Arthur of Bishopsworth and in 1380 Thomas Onewyn and Ralph Yenele were granted 'all the lands which he [John de Byhsupworthe] has in Byhsupworthe and Bedmynstr to hold to them' (Bristol Record Office: AC/D12/6 & 7).

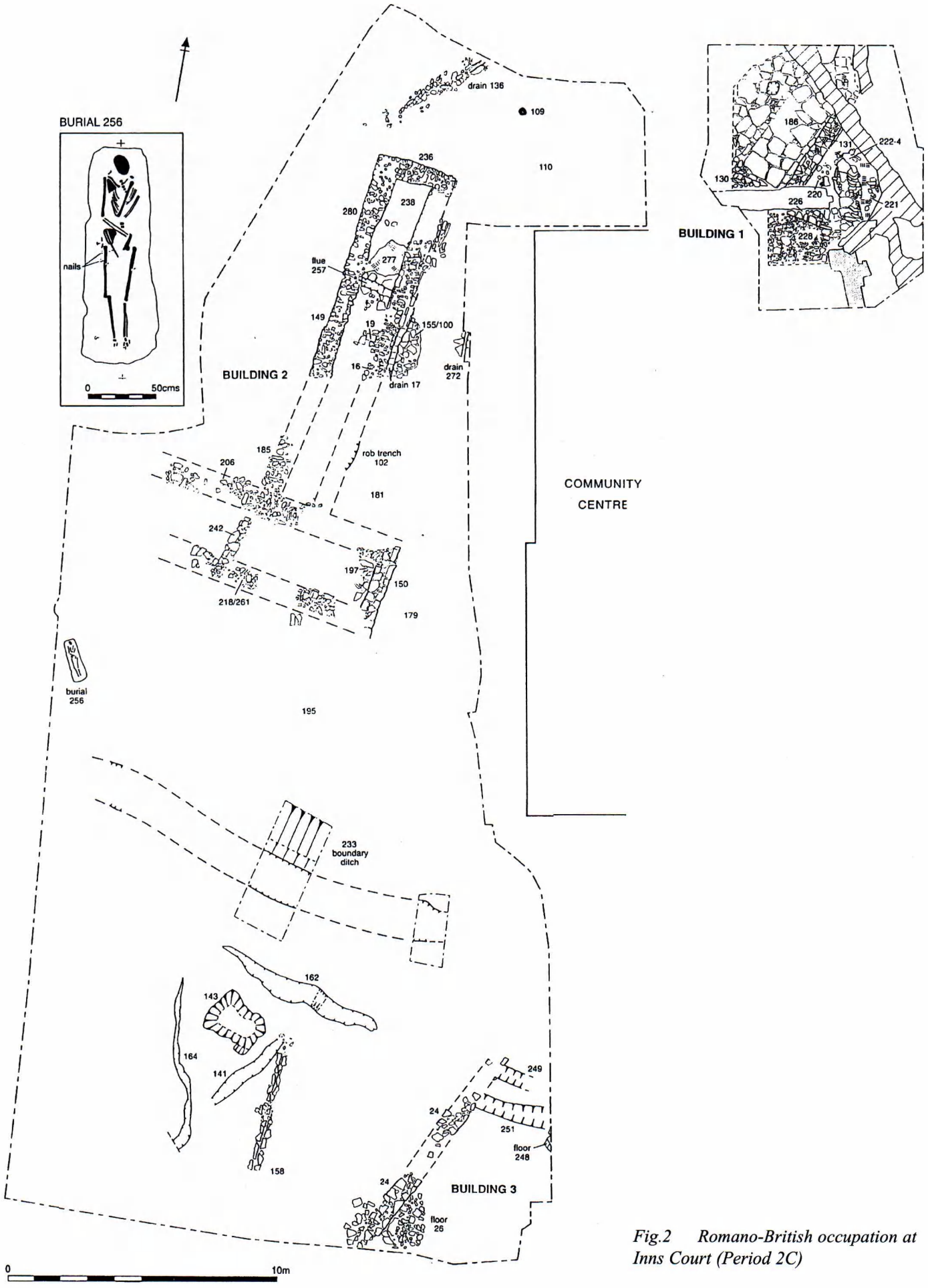

Fig.2 Romano-British occupation at Inns Court (Period 2C)

The first person clearly associated with Inns Court manor house was Sir John Inyn. He was described as being 'of a Somerset family, his county seat being at Bishopworth (now called Bishport in that county in which he possessed the manor of Long Ashton)'. He held high public offices under Henry V and Henry VI, firstly being 'compelled to take upon himself the degree of Sergeant' in 1404 and then becoming Recorder of the city of Bristol. In 1423 under Henry VI he was appointed to the double office of Chief Baron of the Exchequer and Judge of the Common Pleas. By 1434 he had been knighted and on 9 February 1436 he was made Chief Justice of the Common Bench (Public Record Office: Patent Roll 14 Henry VI pt 1 memb 19). On 20 January 1439 he received his highest appointment as Chief Justice of the King's Bench, the leading court dealing with common law in England (Public Record Office: Close Roll 17 Henry VI memb 25).

After Inyn's death in 1440 the house was occupied by his decendants until 1529 when it passed to the Kenn family and then, in 1614, to the Poulett family of Hinton St. George in Somerset. Thereafter it was inhabited by tenants and went into decline. The Poulett family sold the Inns Court estate in the early 19th century to a Thomas Daniel who, in the latter part of the that century, demolished most of the medieval house and replaced it with a farmhouse. That in turn was demolished to make way for housing and community buildings in the post-war period.

THE RESULTS OF THE EXCAVATIONS

Period 1 - Late Iron Age/Early Roman

Two features cut into the natural clay produced only late Iron Age/early Romano-British pottery, certainly not later than first century in date. Residual Iron Age pottery sherds were found in later contexts across the site.

Period 2 - The Romano-British Occupation

Period 2A - 1st and 2nd centuries

The evidence for occupation on the site during the 1st and 2nd centuries was slight, mainly due to the destruction caused by later features. A shallow depression, some ephemeral occupation layers and a pit produced 1st- and/or 2nd-century pottery, while three possible post-holes containing no dating evidence almost certainly belonged to this period.

After the conclusion of the archaeological excavation a large greyware storage jar dating from the mid to late 1st or very early 2nd century, partly buried in a specially dug pit, was recovered from an area of disturbed ground beneath the 1960s road. An unusual feature of the jar was that it contained three broken pottery vessels of a similar date: a Belgic style bowl or jar, a small high shouldered jar and a hemispherical flanged bowl. Unfortunately the storage jar was not recovered under archaeological conditions but sufficient parallels exist elsewhere to suggest that, not withstanding the lack of available evidence that the Inns Court jar had contained cremated human remains, it may have been reused as a cremation urn.

Plate 1 Building 1, looking north. Wall 131 in centre with slab floor (186) to the west (Period 2C)

Period 2B - Early to mid 3rd century

Two stone-built drains had been cut by the construction of a later Roman building (Building 2, Period 2C) and were contemporary with occupation layers containing 2nd- and 3rd-century pottery. It is possible that these drains were associated with a building outside the excavated area to the east. At the southern end of the excavation two pits, a number of gullies and an occupation layer all produced 3rd-century pottery.

Period 2C - Late 3rd to mid 4th centuries (Fig.2)

Parts of three buildings with stone foundations and aligned approximately north-east/south-west were excavated (Buildings 1 - 3). Pottery and coin evidence confirmed that these were built sometime in the latter half of the 3rd century.

Building 1 had at least two rooms (Plate 1). One of these retained a substantial flagstone floor, while the adjoining room had the fragmentary remains of a cobblestone floor surrounding what may once have been a circular feature comprising a flagstone path and pitched stone foundations around a central pit.

Building 1 appeared to be separated from Building 2 by a flagstone yard.

Only the south-east corner of Building 2, together with its narrow elongated east wing, were found. The southern wing of the building comprised two parallel foundations approximately 2.7m apart. The south-east end of this wing was sub-divided by an internal wall to form a room measuring 4.5m long by 2.7m wide. The east wing of Building 2 was set in by approximately 2.5m from the east end of the south wing; it projected 12.8m north-west from the south wing and was at most 3m wide externally with an internal width of only 1.2m.

A small fragment of a flagstone floor remained in Building 2, all the remaining areas having been reduced below floor level by later disturbances. Across the east wing

of the building lay the flue of a stone-built furnace or hearth. To the south of the building was a destruction layer containing Pennant roof tiles showing that Building 2 once had a substantial stone-tiled roof.

A ditch to the south of Building 2 probably acted as a boundary and separated it from Building 3 which lay further to the south. The ditch was 1.5m wide with almost vertical sides and a flat bottom.

Associated with Building 2, and lying inside the boundary ditch, was the burial of a female aged between 20 and 25 years. The body had been interred in a wooden coffin and was oriented north/south, the head lying at the north end of the grave.

Three stone-built drains were contemporary with Building 2, while another drain south of the boundary ditch probably related to Building 3 (Plate 2).

The remains of Building 3 were very fragmentary and consisted of one length of wall foundation and a small area of cobblestone floor. A number of gullies and a rubbish pit were probably associated with Building 3.

Period 2D - Mid to late 4th century

Evidence was found for the abandonment of the three Period 2C buildings and their demolition or, more probably, their gradual collapse through neglect. That event seemed to have occurred during the second half of the 4th century.

Plate 2 Stone-built drain 158, looking north (Period 2C)

Period 3 - Inns Court Manor House: Medieval to Late 19th Century

Period 3A - 14th century to early 15th century

Nineteenth-century plans show a long west range running south from the main north range of the medieval house, while a 19th-century watercolour painting depicts a structure, possibly a barn, on the supposed line of the west range. In 1999, after the removal of the old community centre, the opportunity was taken to expose what remained of the west range which was found to measure 17m north/south by 6.5m east/west (Building 4)(Fig.3 and Plate 3).

The archaeological evidence suggests that the west range pre-dated the north range of the house. The surviving foundations of the west range were mainly bonded with clay while those of the north range were bonded with a friable red mortar. The north and west ranges are also slightly skewed in relation to one another. However, in only one small area was it possible to dismantle the foundations and excavate archaeological deposits associated with the construction of the west range. There the dating evidence was limited to a sherd of 14th-century pottery from within the foundation and sherds of a Minety-type storage jar, dating between 1300 and 1500, from its construction trench. A 14th-century date for the construction of the west range seems possible on pottery and structural evidence. The area of wall around the south-east corner of the range was bonded with mortar similar to that used in the north range, suggesting a partial rebuilding of that part of the west range in the early 15th century.

One internal division was noted in the west range, comprising a line of flat stones which probably formed the base for a timber partition.

Apart from a small area excavated in 1997 around the north wall of the west range it was not possible to investigate any occupation levels associated with the house as the 19th-century farmyard to the west of the west range had removed almost all evidence of medieval occupation and structures. Some indication of what may have been lost elsewhere was the survival of a short length of medieval wall (contexts 111, 115, 244) aligned north/south which had only remained intact through being sealed beneath a post-medieval outbuilding (Period 3C; Building 6). The wall was poorly constructed having no foundations and with a rubble and clay core between rough stone facing. A later attempt appeared to have been made to straighten the east face of the wall. The wall is no later than 14th century in date and might pre-date the construction of the west range of the house. An area of cobbling to the north of that wall appeared to have been laid in the 14th century.

Period 3B - Early 15th century to early post-medieval

The excavations uncovered the foundations of the west wall and north-west corner of the north range of the late medieval house (Building 5)(Fig.3 and Plate 4). As no archaeological deposits associated with this building survived within the excavated area it could only be dated by its method of

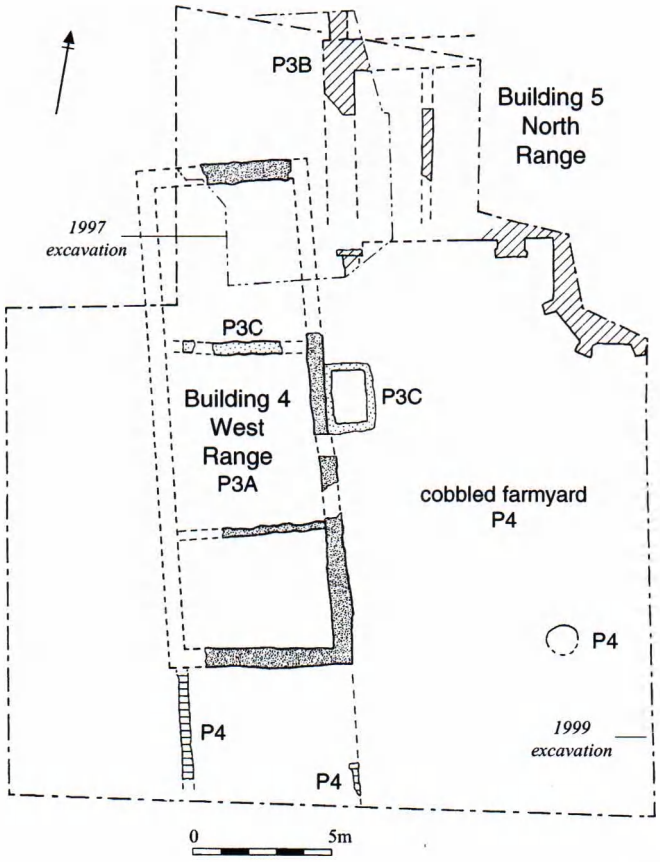

Fig.3 Phase plan showing the west and north ranges of the medieval house. P = Period

Plate 3 The remains of the west range exposed in 1999

construction. All the foundations were bonded with the same friable red mortar used in the construction of the surviving stair turret which has been dated on architectural grounds to the early 15th century. The limited evidence so far available suggests that the north range of the manor house was probably either first built or completely rebuilt in the early 15th century during Sir John Inyn's occupation of the property.

The foundations of the south-west corner of the north range had been badly damaged by later disturbances but one section of foundation projecting south of the south wall of the north range might have been the remains of a wall linking the two ranges. There was also an area of mortared stonework in what would have been the angle between the north and west ranges. Although so badly disturbed that no wall faces remained it probably represented the foundations of the small rectangular turret shown projecting from the north range, in that area, on the 19th-century watercolour of Inns Court.

Other structures belonging to this phase of occupation were a stone-lined drain and associated cobbled surface outside the west end of the north range and two areas of possible stone-paving.

Period 3C - 17th century to mid 19th century

The evidence for post-medieval occupation in the area of the 1997 excavation consisted mainly of the small building (Building 6) shown on a map of 1827 as projecting from, and skewed slightly to, the west range of the house. Parts of the north, south and west walls of the building were found together with internal floor surfaces and a doorstep into the building through the west end of the north wall. The building measured at least 7.6m east/west by 5.3m north/south. The three walls were all of differing widths and exhibited different methods of construction, suggesting they had been rebuilt on a number of occasions. The building appeared to have originated in the late 17th or early 18th century and continued in use to the mid 20th century.

The north wall of the north range of the manor had been re-faced in the post-medieval period and a cobbled surface, to the west of the north range, dated to the 17th or 18th centuries.

One of the internal divisions in the west range apparently belongs to this period, as did a large stone-lined pit outside the east wall of the same range (Fig.3).

A massive stone-lined drain running north/south, but largely destroyed by the 1960s road, appeared to be of 18th-century date.

Period 3D - Late 19th-century demolition

Documentary evidence showed that the majority of the north range, excluding the stair turret, and parts of the west range of the house were demolished sometime between 1867 and 1882.

Inside the north-west corner of the north range were layers containing rubble, fragments of Pennant roof tiles and wall plaster, while underlying the floor of the Period 4 extension to the west range were layers of broken brick and freestone and pieces of slate, Pennant and ceramic roof tiles. These layers almost certainly relate to the demolition of the north range and other parts of the medieval house.

Period 4 - Inns Court Farm - Late 19th Century to 1939

The first edition Ordnance Survey map of 1882 showed that by then a new farmhouse had been built, incorporating the

Plate 4 Stair turret on the south wall of the north range of the medieval house, looking north (Period 3B)

medieval stair tower, on the site of the north range of the manor house. The west range of the manor house survived, probably being used as a barn, while the outbuilding, Building 6, projecting west from that range also continued in use. The archaeological evidence for this period of occupation of the site consisted of an extension built on to the south end of the west range (Fig.3), a courtyard surfaced with stones set on edge and containing a well between the west range and the new farmhouse (Fig.3), the remains of a cobbled farmyard to the north and west of the west range, a stone-built drain, a possible floor level within Building 6 and a field drain.

Period 5 - The 1949 'Barn' Church

In 1949 a church (Building 7) had been built around a structure described as a 'barn' - almost certainly the surviving west range of the medieval house. All that remained of the 1949 church were a series of substantial concrete foundations and pillar bases. A reinforced concrete base just to the north of the community centre was apparently part of the vestry serving the 'barn' church.

Period 6 - Modern

During the development of the area as a housing estate some destruction had been caused by the excavation of service trenches and in particular the construction of the road around the church and vicarage.

DISCUSSION

In order to establish the date of the earliest medieval occupation at Inns Court and the plan and development of the house, an excavation within the building would have been desirable. Unfortunately the two known ranges of the house lay beneath later, standing, buildings and were inaccessible: the major portion of the north range being below the vicarage and the west range below the community centre. Even when access was gained to the west range in 1999 after demolition of the community centre all that could be retrieved was the plan of the range. Consequently problems such as its date of construction, the dates of alterations and additions and its relationship to the north range could not be answered.

The extreme paucity of medieval finds may appear surprising given that this was the site of a substantial house owned by an important, and consequently wealthy, man in Henry VI's legal system. However, it must be appreciated that virtually all the medieval levels within the area of the 1997 excavation had been removed by the construction of a farmyard in the 19th century and later by the church and road. While some attempt has been made to interpret the sequence of medieval occupation from the remains discovered, the conclusions must be treated with caution and may need to be amended if further archaeological work is carried out.

Even the underlying Roman features had been seriously damaged by later disturbances, the majority of the stratigraphy having been removed except in the area to the north of the old community centre. The apparently better preserved Roman layers beneath the west range of the medieval house could not be excavated. The general absence of stratigraphy associated with the structures and features made phasing the site difficult and it relies mainly on the physical relationship between structures and features where that could be observed. Critical relationships had often been removed, damaged or obscured by later features such as concrete foundations and pipe trenches. Nevertheless enough of consequence remained to allow an interpretation of the history of the late Iron Age and Romano-British occupation on the site and for comparisons to be drawn with other settlements locally and nationally.

The Late Iron Age and Romano-British Occupation

An Iron Age origin for the occupation at Inns Court is possible and, from parallels elsewhere, might be expected. It is generally accepted that there was no major change in the agricultural system as a result of the Roman conquest and there is little evidence elsewhere of the abandonment of Iron Age farms - instead they simply remained in

uninterrupted use. The Romano-British farm excavated at Row of Ashes Farm near Butcombe in Somerset was shown to have continued to function as a late Iron Age establishment that underwent rebuilding with rectangular instead of round buildings at the end of the 1st century (Costen 1992, 34). Similarly, at Chew Park in Somerset excavations showed that the site of a Roman farmhouse had previously been occupied for a long period in the Iron Age (Rahtz & Greenfield 1977).

Whatever the origins of the settlement at Inns Court, occupation seems to have continued throughout the Roman period, although the physical evidence for occupation prior to the mid 3rd century is limited to pits, gullies, some ephemeral and truncated occupation layers and two stone-built drains, the latter dating to the first half of the 3rd century. All the features produced 1st- to 3rd-century pottery, although the quantities were small. The bases of three truncated post-holes contained no pottery but it seems likely that they date to an early phase of occupation, sealed as they were below 3rd-/4th-century levels. However, the nature of the structure of which they formed a part could not be determined. The evidence, particularly the well constructed stone-built drains and the occurrence of roof tile in some of the deposits, points to more intensive occupation close by and it is likely that the drains were associated with a building perhaps to the east of the present excavation.

The majority of the Romano-British structures and features excavated at Inns Court date to the final phase of occupation from the latter half of the 3rd century through to at least the middle of the 4th century. Parts of two, and possibly three, buildings were uncovered, all aligned on a north-east/south-west axis. The local Lias stone had been used exclusively in their construction. Two of the buildings were quite substantial and one had been roofed with Pennant sandstone tiles, suggesting that it was a structure of some status.

It seems almost certain that the Romano-British occupation at Inns Court was part of a much larger settlement which included the site at Filwood Park some 300m to the east. It seems inconceivable that there was not a continuous settlement extending from Inns Court to Filwood Park and perhaps beyond, a distance of some 0.5km. We are not able to fully define the limits of that settlement in the light of present knowledge. Archaeological trial trenching to the north of the Inns Court site was not possible but it is logical that the Roman occupation extended further north across the hilltop. To the west of Inns Court the ground drops away towards the valley of Crox Bottom and archaeological trial trenches some 90m to the west and south-west of the main excavation contained no trace of Roman occupation. It therefore seems probable that the western extremity of the settlement lay not far beyond the excavated area.

The results of the rescue excavations at Filwood Park have not yet been fully published. However, the excavators suggested that the occupation there was continuous and, on the basis of Samian and coin dating, that it probably commenced during the mid 2nd century and ended towards the close of the 4th century. The main occupation was concentrated on a ditched enclosure approached by a trackway from the south. The enclosure, which was probably associated with the final phase of occupation, contained at least one building with stone foundations together with other possible buildings represented by areas of packed cobbles. A V-shaped drain ran through the centre of the enclosure.

That enclosure and the buildings within it are very reminiscent of the buildings found at Inns Court which also appear to have been located within an enclosure delineated by a boundary ditch. It seems likely that the Inns Court/Filwood Park settlement was composed of a number of separate building complexes within ditched enclosures or 'compounds'. If that is the case, then its closest excavated parallel both in terms of layout and size was the settlement at Catsgore, 4km north of Ilchester in Somerset. Catsgore is considered to be a Romano-British 'small village', which was occupied between c. AD 100 - 400+, and which consisted of at least five, possibly as many as twelve, separate farms set within enclosures bounded by ditches. Within these, parts of at least 37 buildings were excavated (Leech 1982).

Hingley (1991, 77) has attempted to define the terminology used to describe rural settlements in Roman Britain: there were single farms, small hamlets (comprising 2 to 3 farm clusters), large hamlets (4 to 6 farm clusters) or small villages (7 or more farm clusters). Thus Catsgore may be described as a small village. We do not know the number of farm clusters within the Inns Court/Filwood Park settlement but it may also have been large enough to be termed a small village.

Other agricultural settlements recorded in England, and considered to be similar to Catsgore, are detailed in Leech's report (1982, 33-36). In summary these are Pinford Lane, Dorset; Burton, Somerset; Nash Lane, Somerset; Chisenbury Warren, Wiltshire; and Fotheringay and Thorpe Achurch, both in Northamptonshire. Unfortunately, excavations on Romano-British rural sites have often been small-scale and intended to uncover only single house plans. As a result, the evidence for compounds on settlements is not as prolific as that for buildings, and the excavation of complexes of contemporary and related buildings have been neglected (Hingley 1989, 55). The significance of the farm compound is that such groups of related buildings are thought to have represented the dwellings and agricultural buildings of a single nuclear or extended family. The nucleation of a settlement possibly related to the need to carry out farming on a communal basis and thus variations in settlement size need have no tenurial connotation (Hingley 1991, 78).

The Medieval House

The early medieval history of Inns Court is obscure as it does not appear in either the documentary or archaeological record. Some sherds of 13th-century pottery from Inns

Court, although found in later contexts, probably indicate that the site was occupied at that time; but only further excavation, probably beneath the later house, may prove that point.

The archaeological evidence for the medieval period implies that the west range of the house, on a north/south alignment, was the first to be built. Although no floor or occupation layers were found, fragments of 14th- to 15th-century pottery from the foundation trench of the north wall of the west range and a single sherd of 14th-century pottery from the structure of that wall, suggest a 14th-century date for the construction of that range. Admittedly the dating evidence is flimsy. A short length of poorly constructed wall aligned north/south to the west of the west range, although undated, possibly belongs to this period or earlier and may have been associated with an area of Lias cobbles just to the north which contained 14th-century pottery. Unfortunately the 19th-century farmyard had removed almost all the medieval levels west of the west range, while the west range itself, although now planned in its entirety, could not be excavated. Thus confirmation of the date of construction of the west range and its development awaits further work.

It is possible that in the late 14th/early 15th century the property was in the ownership of one Philip Brokeland. The only reference to Philip Brokeland was in 1420 when John Inyn was involved in litigation with him and was subsequently awarded two messuages, 120 acres of land, 24 acres of meadow and two acres of wood in 'Busshopworth, Bedmynstre and Knolle' - a parcel of property that almost exactly matches the later descriptions of the Inns Court estate. It seems likely that this is how and when Sir John Inyn acquired the estate and that one of the two 'messuages'was the house at Inns Court.

Sir John Inyn may then have embarked on a program of building at Inns Court which transformed the house into the 'mansion or manor house' befitting a person of his status in Henry VI's court. That almost certainly involved the construction of the north range which, from the archaeological evidence, seems to have been either newly built or completely reconstructed in the early 15th century. The evidence for this suggestion is that the foundations of the north range lying within the excavation were of the same construction and apparently bonded with the same mortar as that used in the surviving stair turret which dates from the early 15th century.

Post-Medieval Occupation

Inns Court reached the height of its importance and grandeur as a mansion house in the 16th century under the occupation of the Inyn and Kenn families. After the estate passed into the hands of the Poulett family in 1614 it was only occupied by tenants and consequently went into decline.

In the late 17th or early 18th century an outbuilding was built against the west side of the west range of the house, but it was slightly skewed to the alignment of the main house. It had an entrance threshold 1.2m wide at the west end of its north wall and its walls were built with the minimum of foundations and were all of different widths and types of construction, implying that the outbuilding had been patched and rebuilt on a number of occasions. The floor, despite being damaged by later disturbances, appeared to have different areas of patching of pitched stones, mortar and cinders.

The north and west ranges of the house continued in use until sometime between 1867 and 1882 when all the north range, excluding the stair turret, was demolished. The northern end of the west range was used as a barn which was extended to the south, while the outbuilding also survived into the 20th century.

The 1826 terrier map, 1841 tithe map and 1882 Ordnance Survey map all show a large barn or similar building lying along the west side of a paddock to the north-west of the manor house. Only archaeological excavation would confirm the date of construction of that building. It is possible that it is medieval in origin.

In the late 19th century the north range was replaced by a farmhouse. The area to the west of the farmhouse became a cobbled farmyard. At least one small building, perhaps a shed or animal shelter, was constructed on the surface of the farmyard in the late 19th century.

The archaeological and historical record ends with the construction of a church in 1949 incorporating the west range barn and the destruction of the 17th-/18th-century outbuilding.

ACKNOWLEDGEMENTS

The excavations, watching brief and the subsequent post-excavation work were funded by Bristol City Council through their Housing Services section and by the government through English Partnerships.

I am very grateful to the diggers - Steve Bagshaw, Melanie Barge, Rachel Every, Pippa Gilbert, Tim Longman, Sam Smith and John Turner - who worked under very difficult conditions.

Kim Allan, Dennis Cooper, Martin Parsons, Merle Wade, Frankie and Emma Webb, Duncan Wright and Neale were the band of dedicated volunteers.

Armstrong Security provided the excavation team with the level of protection needed to ensure that the work could proceed safely.

Rod Burchill, Rosie Clarke, Peter Insole, Gerry Barber and Julie Jones worked on the finds and environmental samples.

Ann Linge produced the illustrations, only a few of which are reproduced here.

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ARCHAEOLOGICAL RECORDING DURING CONSERVATION WORK AT ST JOHN THE BAPTIST CHURCH CRYPT, BRISTOL, 1998

by Jayne Pilkington

INTRODUCTION

Bristol and Region Archaeological Services (BaRAS) were commissioned by the Churches Conservation Trust, to conduct an Archaeological Watching Brief in the Crypt of the redundant Church of St John the Baptist, Bristol, during conservation work undertaken by Strachey and Strachey Conservation.

The Crypt had suffered from the effects of damp resulting in a conservation strategy which required the stripping of existing plaster from all the walls; removal of four memorial wall tablets from the east wall; dismantling of three Chest Tombs positioned along the south wall of the Crypt (Fig.3); and the lifting of perimeter floor slabs to enable 100mm of the underlying deposits to be excavated for the installation of a damp proof course (Fig.3). This was monitored during the Watching Brief, permitting exposed features of archaeological and architectural significance to be recorded. The fieldwork was conducted between December 1997 and April 1998. Throughout the project the liturgical points of the compass are used for reference.

THE SITE

The Church of St John the Baptist (Bristol Urban Archaeological Database Mon. No. 145M), also referred to as 'On the Wall' or 'St John the Evangelist', is a Grade 1 listed building (City of Bristol Listed Building No. 14). It was placed in the care of the Churches Conservation Trust (formerly known as the Redundant Churches Fund) in 1985. The present building dates between 1350 to 1500 with extensive modifications in the 19th century. It is one of five such churches built in Bristol on the line of the early inner town wall (Fig.3). Its tower is supported on an arch, which forms the only surviving town gate.

The Church stands at the north end of Broad St, with Tower Lane its south side and Nelson St running along its north side (Fig.1). It is positioned on a steep surface slope, running down from the south to the north on the south side of the former River Frome. The underlying solid geology is Triassic Mercian Mudstone.

The Crypt or the 'Lower Church' lies partially below the present ground level of Nelson St, and its south wall lies flat against and below Tower Lane, resulting in dampness throughout the Crypt. The Crypt is the same length as the Church but does not extend underneath the Vestry, as the east end of the Chancel and the Vestry are an extension that lie beyond the east wall of an earlier church, (Hirst, 1921,21).

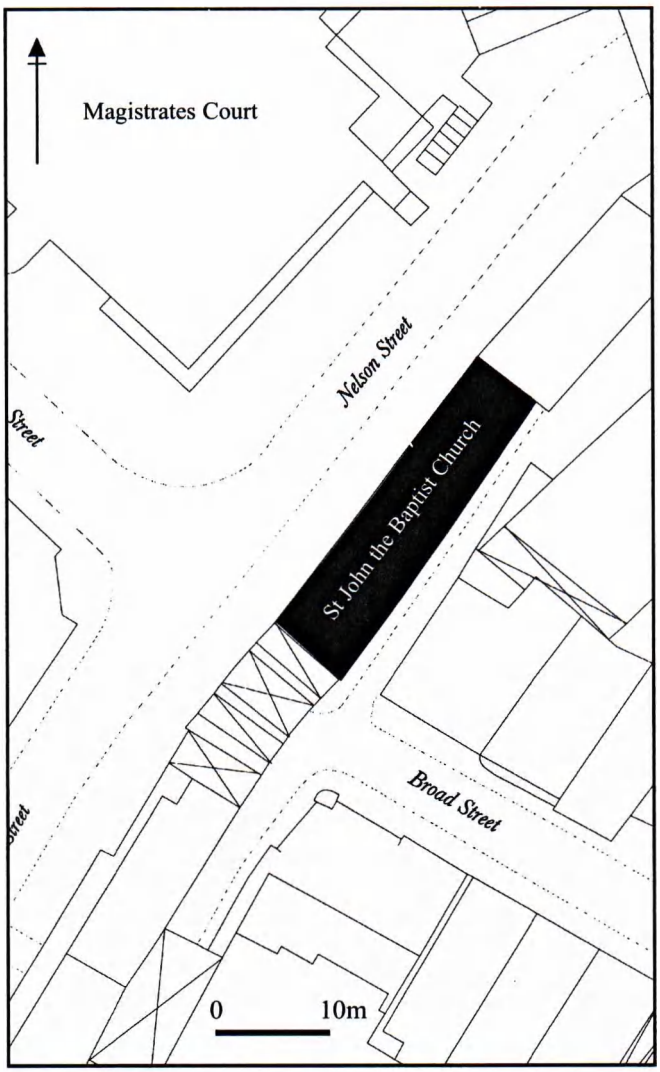

Fig.1 Site location plan

The Crypt can only be entered from its north side, off Nelson St, through a small Tudor-arched ribbed door, since there is no access to the Crypt from the above Church. The Crypt is refenestrated on its north side by a row of five windows, as the two windows on its south side have been blocked in.

The Crypt may be divided into two sections, the Eastern and the Western, partitioned only by a change in floor level, with a step leading up into the Eastern section (Fig.3). This section is thought to be the oldest part of the Church, dating from the early 14th century, and is vaulted in three bays,

(Bays 3, 4 and 5) (Plate 2). The wider Western section of the Crypt is vaulted in two larger bays, (Bays 1 and 2), with two disused burial vaults at the far west end (previously a vaulted bay).

There are two stoups in the Crypt, both of which are in the western end, one by the door and the other in the south-west corner. In the eastern end of the Crypt there are six chest tombs (A to F) (Fig.3), one of which (Chest E) was dismantled in 1980. There is a seventh chest tomb in the western end of the Crypt (Chest G) positioned on the south wall in-between a long stone bench. The floor of the Crypt is paved with flag stones and some large ledger stones with armorial bearings.

HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

No known archaeological work has been undertaken in the Crypt. As for the historical background of the Crypt, this has been obtained primarily from Church Warden's records, wills, deeds, watercolours in the Braikenridge collection of Bristol City Museum and Art Gallery, old photographs and what can be deduced from the study of the architecture of the actual building. The historical research has predominantly been conducted by HCM Hirst, Church Warden for St John's between 1899 and 1901. Using his work (Hirst 1921) and the above sources, an attempt will be made to chart the architectural changes made to the Crypt, in order to obtain an understanding of its historical background and how the Crypt may have appeared originally.

The Church of St John's is one of five such churches in Bristol built on the line of the town wall. The Church of St Leonard stood over the west gate to the town, St Nicholas stood over the south gate, St John and St Lawrence, sharing the same tower, stood on either side of the north gate and St Giles stood to the south-west of St Lawrence. There is little

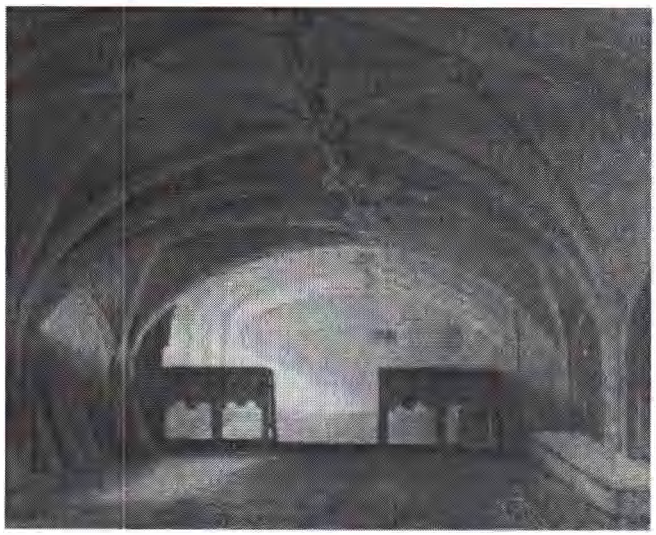

Plate 1 Watercolour (from the Braikenridge Collection), of the Crypt looking east, painted by TS Rowbotham in 1826 (M.2425).

evidence for the date of construction of the town wall. It is generally thought to date to the 12th century, although it may have succeeded an earlier defence defining the Late Saxon town.

St John the Baptist is represented on early maps of Bristol. Hoefnagle's map dated 1581 shows both the Church of St Lawrence and St John's located on the inner city wall. Millerd's map dated 1673 (Fig.2) shows only St John's, as St Lawrence was deconsecrated and sold c.1590, partially demolished in 1824 and finally cleared in 1963. What is clear from both maps is that, although St John's Gate was a defensive point (especially during the Civil War) it no longer formed the outer circuit of the city walls as the walls had been extended in the mid-13th century resulting in

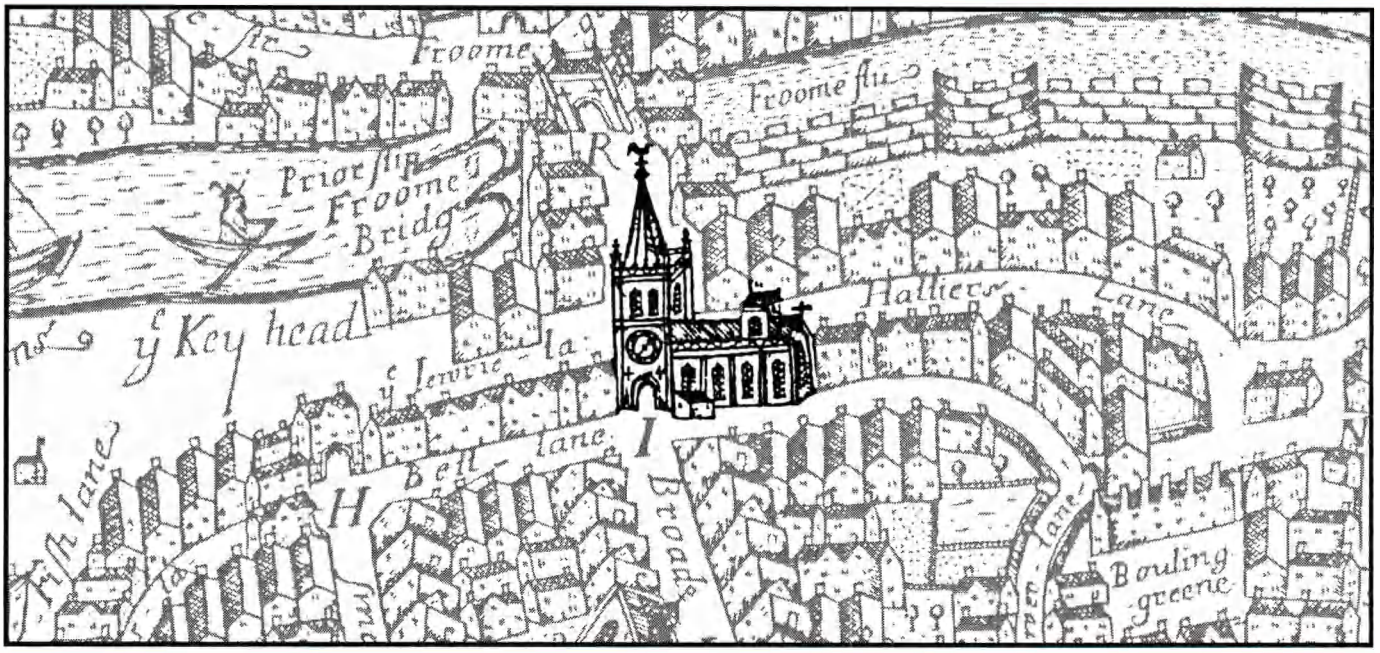

Fig.2 Millerd's plan of 1673 showing St John the Baptist Church in the centre

Froom Gate becoming the outer gate on the north side (Fig.2).

The architecture of the present building of the Church shows that it dates from 1350 to 1500. Walter Frampton (who died in 1388) is attributed with being the Chief Benefactor of the church, responsible for erecting the present church building upon the foundations and walls of an earlier church. The earliest record of the foundation of the earlier Church is in a deed dated 1174, which states that William, Earl of Gloucester gave to the Priory of St James and the Monastery of Tewkesbury, the Church of St John as a fee. The earliest reference to a Rector, is William Beind who was appointed in 1285 (Hirst 1921, 14). As for early mentions of the Crypt there is a reference in the will of Joanna Baker, 18th May 1392, in which she directs her body to be buried in the "Crowd of St John's Bristol" (ibid. 16). The eastern section of the Crypt is generally thought to date to the 14th century, whereas the western section of the Crypt and the rest of the church is thought to date to the 15th century. The eastern end of the Crypt may even be the only part of the original structure not rebuilt (ibid. 18).

The eastern section of the Crypt is narrower than the west section and is vaulted in three bays, (labelled Bay 3, Bay 4 and Bay 5) (Fig.3). The vaulting takes the form of a tierceron star with longitudinal and transverse ridge ribs which have a narrow fillet and concave sides. The ribs spring from columns or wall shafts with moulded capitals which have the appearance of work of the 'Decorated' period (early to mid 14th century). The western part of the Crypt is wider and vaulted in two larger bays (Bays 1 and 2) and its style is indicative of a later date which corresponds to the style of the church above. At this end, the ribs are carried down to the floor without the intervening column and capital as seen in the eastern section. What is also evident is that the east and west ends are possibly not contemporary evidenced by the distinctively different mason marks inscribed on the ribs at either end. Visible on the ribs in the east end of the Crypt are hourglass-shaped mason marks, whereas bow-shaped mason marks can be observed on the ribs in the west end (Fig.3). On the ceiling in both parts of the Crypt there are carved foliate bosses at the intersections, however in the interface area between the two ends there is an area of ceiling without ribs or bosses.

A number of structural changes have occurred to St John, mainly during the 19th century. A significant alteration was the transfer of the Conduit in 1827 from its original location on the inner side of the gate (a painting of which survives in the Braikenridge Collection, M.2393 Delanotte, 1825) to a recess in the north wall of the Church. The Conduit was built in 1267 to supply the Carmelite Friary (on the site of which is now Colston Hall) from a spring on Brandon Hill. A further structural change to the Church was in 1828 with the construction of the second side archway for pedestrians east of St John's Gate under the church tower. Previous to 1828 there was just the one side archway illustrated in a watercolour in the Braikenridge Collection (M.2399 Holmes, 1823).

It does appear from notes by antiquarians and from old

Plate 2 The Crypt before conservation, looking east

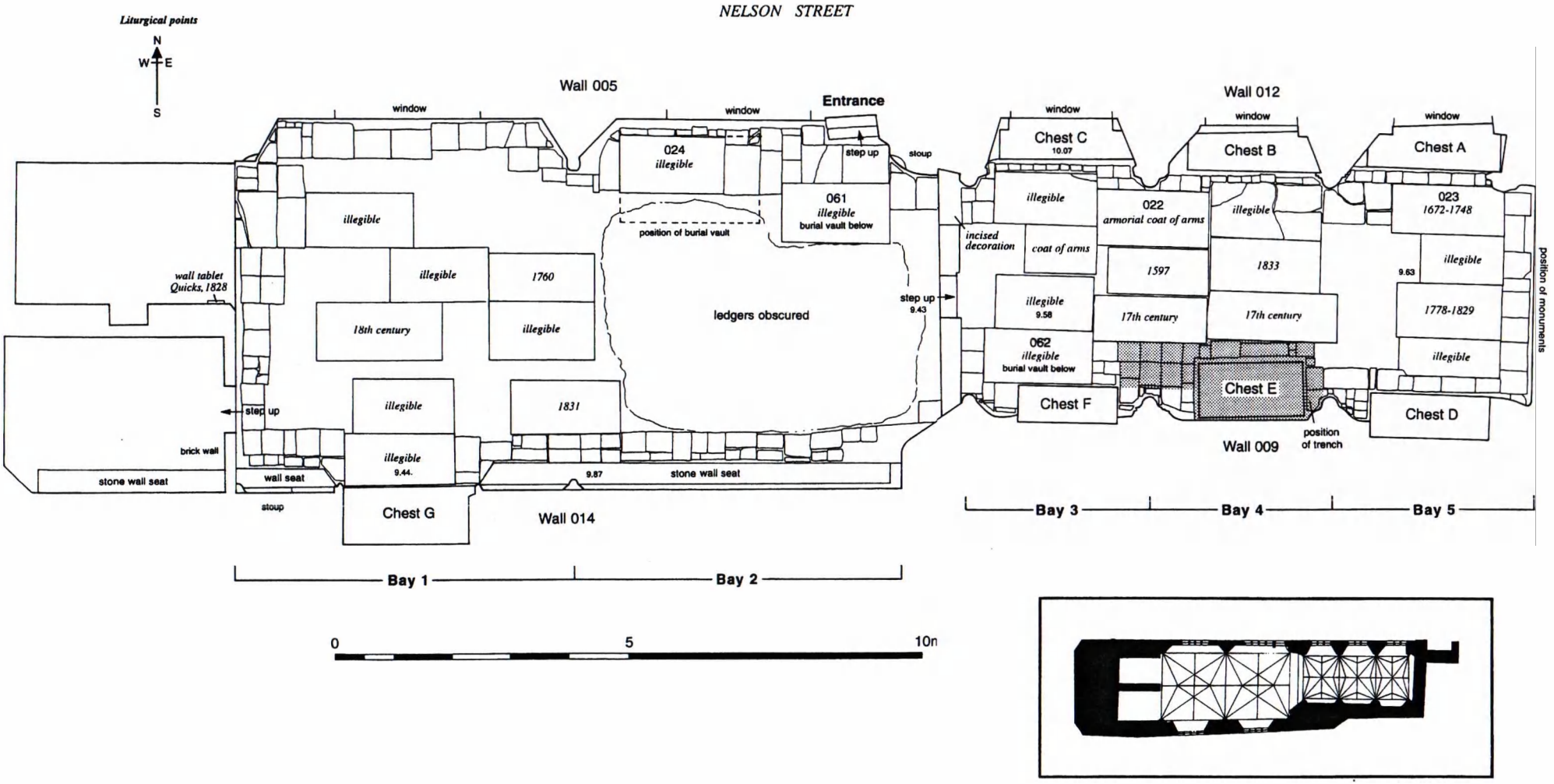

Fig.3 Plan of the Crypt (BaRAS 1998) with inset based on 1942 RCHM survey showing ceiling vaulting

photographs and paintings that many changes have also occurred to the appearance of the interior and exterior of the Crypt.

One notable structural change to the exterior of the Crypt is that it was originally lit by six windows on its north side. It is now only lit by five windows, as the one located at the far western end has been blocked in. Furthermore, it is evident that due to the street level in Nelson Street (formerly Grope Lane and later Halliers Lane) being raised through time, the six windows also had their sills raised. Tower Lane located on the south side of the church, also appears to have been raised, resulting in the sills of two windows on that side also being raised.

The Crypt is now entered by a small doorway in the centre of the north side. This entrance was constructed in the mid to late 19th century as it is not visible on early 19th century illustrations (see M.2399 Holmes, 1823). Originally the Crypt may have been entered from the Church above, in the south-west corner of the Crypt, and the stoup/piscina now in that position probably adjoined the doorway (Hirst 1921, 26). There is now no trace of this entrance, although it is recorded that in 1828 during the construction of the new archway on the east side of the gate, this doorway was visible (ibid, 26). Another entrance possibly into the Crypt, is illustrated in the Braikenridge Collection, which contains two watercolours, one dated 1823, showing the north side of the Church (M.2399 Holmes) and one painted from the north side of St John's gateway in 1820 (M.2401 O'Neill). Both show what is now the blocked window at the far west end of the Crypt as originally being a doorway.

As for how the interior of the Crypt appeared, Tyson, the antiquarian, made notes on the Church in 1828, stating that the eastern end of the groining of the Crypt was ornamented by a fresco painting, traces of which were then visible. The Crypt is now painted white throughout. He also noted evidence of the existence of a piscina on the north side of the eastern wall, which he considered showed that there was once an altar at the east end (Hirst 1921:28).

Next to the present entrance into the Crypt, there is a stoup for holy water which is probably in its original position as it is shown as being in the same position in all the surviving illustrations of the Crypt. As for the other stoup/piscina located in the south-west corner of the Crypt, a watercolour in the Braikenridge Collection (M.2427 Manning) dated 1828 shows it removed from the wall and sitting on the floor. The accompanying text reads "Taken out June 1828 - Piscina taken out of the south wall of the Crypt. It was discovered in constructing the footway, under the west end of the Church which is now affecting through the site of the old Conduit". (Catalogue I.46). This particular stoup was probably originally positioned next to the now disused doorway, which would have been the entrance into the Crypt from the Church above, thought to be located at the south-western end of the Crypt.

The eastern end of the Crypt is raised one step above the western end and this is captured in all illustrations and paintings of the Crypt (Plate 1). However, Hirst suggests that this "was probably not so originally" (Hirst 1921, 27) but providing no evidence to substantiate when, if at all, the floor level was the same throughout. What is visible from an inspection of this raised floor, is that one of its slabs appears to be a reused stone, as there is the incision of a cross on it, identical to those carved on the top of Chest Tombs A, B, C and F. It is unlikely that it belongs to the original medieval floor of the Crypt as most of the ledger stones in the floor date from the 17th century to the 19th century.

From early illustrations and photographs of the Crypt it appears that it was at various times laid out like a church. A lithograph by J S Prout, 1825 provides evidence of the existence of a central wooden screen which was dividing the eastern half of the Crypt from the western half. It was positioned on the central step of the Crypt and appears to be 17th century in character with arches, two carved figures and a central gate. This same screen is also represented in two watercolours in the Braikenridge Collection, (M.2425 Rowbotham, 1826) (Plate 1) and (M.2426 Rowbotham, 1826) however, the two carved figures appear to be missing. A sketch of the Crypt dated 1850 shows the screen had been removed suggesting that the Crypt at this time was not required to be laid out like a Church. However, it is clear from photographs in 1890 (National Monuments Record ref OB1254, Reece Winstone) and 1908 (M.3606 Volume 3) that the Crypt regained its status of the 'Lower Church', as another dividing screen had been installed, which was the old Altar Rail removed from the Chancel of the Church above (Hirst 1921). There is now no central dividing screen in the Crypt (Plate 2) and whether there was a screen in the medieval period is not known.

It therefore appears that at various times the Crypt or 'Lower Church' was not only a place of burial but was arranged for services in the manner of a church, the east end being the Chancel for the officiating priest, and the western part fitted with pews for the congregation (Hirst 1921, 28). In the Will of Thomas Harte, dated 1541, there is reference to a legacy for restoring the pews in the Crypt and William Worcester (c.1480) refers to the Crypt in his Itinerary as the "Chapel (Capella) of the Holy Cross". (ibid, 16).

The Crypt also appears to have served a far from traditional purpose, as there is a record of it being prepared by a George Bowcher (a member of the Vestry of St John), to be used as a prison for "captured Roundheads" during the advancement of Prince Rupert on Bristol in 1643 in the Civil War, (ibid, 11). More recently during World War 2 the Crypt was used as an air raid shelter.

Within the Crypt there are various chest tombs, memorial wall tablets and ledger stones indicating that this was a much desired place of burial. On the east wall there are four memorial wall tablets, which are 17th century in date. The ledger stones in the floor also date mainly to the 17th century, apart from one which dates to 1597 and one which dates to 1833. It is mainly the chest tombs that can possibly be attributed to the 14th to 15th centuries. In the eastern end of the Crypt there are six chest tombs. The three chest tombs, A, B and C, positioned under the windows in

Plate 3 Bay 5 (south), Chest Tomb D before conservation, looking south

the north wall of the Crypt are alter-shaped and each have an incised cross probably 14th or 15th century in date with an inscription round the margin, now indecipherable. Chest Tomb D (Plate 3) positioned on the south wall of the Crypt at the far eastern end, is also altar-shaped, however, there appears to be no visible incisions on top.

Chest Tomb E, located in the East end of the Crypt, on the south wall, has been carved out of alabaster and on the top of the tomb are the recumbent effigies of a male and female (Plate 5). The male is dressed as a merchant, and has an alderman's gown; the female has a penner and a small ink-horn suspended from the waist by a scarf and the head-dress is pedimental. There is no record of the date of this tomb nor whom it commemorates, however, the costumes of the effigies are of the type characteristic of the Renaissance, between 1500 and 1600. The two ends of the chest tomb are divided into panels with carved figures of angels holding shields. On the front are the carved diminutive figures of five boys and six girls, and in the centre is the shield which evidently formerly bore arms, but all traces of it have disappeared. There are illustrations surviving in the Braikenridge Collection of this particular chest tomb, one dated 1827 (M.2422 Manning) (Plate 5) looks down on to the top of the two effigies, showing that even in 1827 the feet and hands had been knocked off the male figure. The other painting, dated 1827 (M.2421 Manning) shows the frontage panels of Chest E, with the inscription referred to as being "not legible".

Chest Tomb E has always been refered to as the 'Tomb unknown' or the tomb of Thomas Rowley and his wife. However, it has been suggested by Hirst that the head-dress of the female figure is incompatible with the date of the Rowley brass which is located in the Church upstairs commemorating Thomas Rowley who died in 1478 and his wife. It was thought by Hirst that Chest Tomb E was more likely the tomb of William Ellis buried 1616 and Mary his wife whose burial is recorded in the register as in August 1599. This needs to be investigated further.

Located next to Chest E on the south wall is Chest F, positioned under an ogee canopy with crocketted pinnacles and finial. It is the tomb of Thomas and Chrystian White and has an incised cross on the covering slab. It is thought to be 14th or 15th century in date.

The only Chest Tomb in the western end of the Crypt is Chest Tomb G, located on the south wall standing in a recess beneath an arched canopy, the character of which is thought to be late Decorated or early Perpendicular (between 1335 and 1530) (Plate 6). The spandrills are infilled with carved foliage and there is a Merchant's Mark on each shield. The lower part of the front has ornamental tracery and panels with shields, but without armorial bearings.

On the alabaster slab which covers Chest Tomb G are the incised figures of a man, with a woman on each side (Fig.5). The man is dressed as a merchant, and the two women, representing possibly his two wives, are dressed with the same style head dress and robes. Beneath these three principal figures are the small figures of eight children, and below this is a panel with an inscription, which due to age and decay is illegible. There are Merchant Marks inscribed between the figures. As with Chest E there appears to be no record for whom the tomb was erected.

Few of the monuments and ledger stones are contemporary with the construction date of the Crypt apart from perhaps the chest tombs located in the eastern end of the Crypt. It is apparent that many alterations have been made to the Crypt, particulary in the 17th and 19th centuries.

METHODOLOGY

A detailed, stratigraphic record was made of the layers of plaster removed during the conservation programme, recording any earlier plaster surfaces and traces of wall painting. Located on the east wall of the Crypt in Bay 5 are four wall monuments which were removed from the wall in order that a damp proof membrane could be placed on the back of each wall monument. The removal of the monuments was monitored, recording the newly-exposed wall surfaces.

The dismantling of Chest Tombs D and G by Strachey and Strachey Conservation was fully recorded. Chest Tomb E had been dismantled previously in 1980 by Michael Eastham and the pieces left on pallets. Once dismantled, the interior fills of all three chest tombs were reduced to a level suitable for the installation of the damp-proof membrane of lead and for the re-instatement/re-assembly of the chest tombs, all of which was fully recorded. Any human bone exposed was retained in-situ and not removed from site.

All floor slabs abutting perimeter walls and chest tomb bases were lifted (Fig.3). Any ledger stones lifted were recorded photographically and a rubbing made of any visible inscription. The deposits below the perimeter floor slabs were reduced by hand to a depth of 100mm and a detailed archaeological record was made. Once the reduced excavation was completed and fully recorded, 19mm chippings were laid and the perimeter slabs were re-laid on a bed of lime mortar.

OBSERVATIONS DURING THE WATCHING BRIEF

The conservation of the Crypt began with the stripping of plaster from all of the walls, followed by the dismantling of the Chest Tombs D, E and G and concluding with the lifting of the perimeter floor slabs in order to excavate the underlying deposits for the installation of a damp-proof membrane.

Removal of the plaster from the walls in the Crypt

The plaster was removed stratigraphically by the conservators from all of the walls of the Crypt unless thought to be original. During the removal of the plaster, at least six stages of re-plastering were identified. The majority of the re-plastering appeared to have been conducted during the 20th century, with only one of the existing plasters being indicative of the 19th century (008). Limited amounts of medieval plaster (007) appeared to survive, with only small occasional patches remaining on the wall of Bay 2 (south), and on the east wall in Bay 5. It was also revealed that some of the medieval plaster would have been painted with colours other than the current white. Traces of red plaster was exposed on the walls in Bay 4 (north), Bay 4 (south), and Bay 5 (east). There was no evidence of the fresco noted by the antiquarian Tyson in 1828. Paint was also found by the conservators to be present on stonework throughout the Crypt. Green paint was visible on the wall shaft in Bay 5 (south), red paint on the bosses and fragmentary traces of red and green paint were visible on the two alabaster figures belonging to Chest Tomb E.

Due to plaster being stripped throughout the Crypt, the fabric of its walls became exposed. In Bay 1 (north) and Bay 2 (north) it was evident that the windows had been shortened to accommodate the increase in the street level. The bottom half of the original windows had been infilled with limestone blocks (051), bonded with an ash mortar. All the walls exposed in the Crypt appeared to be characteristic of the medieval period, constructed of sandstone and bonded with a dark brownish red mortar. It was not established however, if the medieval town wall was still part of the existing fabric of the walls of St John or if they were the walls belonging to the earlier church. The modern Ordnance Survey plan shows the line of the medieval town wall as being on the south side of St John (Fig.1), whereas early town maps (Fig.2) suggest that St John is on the inside of the town wall, with the town wall located on its north side. More archaeological investigation and historical research would be required to ascertain the actual location of the medieval town wall in relation to St John's.

Removal of the four wall monuments

Once the four wall monuments were removed from the east wall of the Crypt it was revealed that the rectangular monument (018), dedicated to Richard Pownall and dating from 1640 to 1674 was not the original stone nor was it in its original position. Ashlar blocks were found to be located behind the monument, covered in 20th-century mortar and the monument does not appear on the 19th-century illustrations of the Crypt. According to Hirst it was originally located on the west wall of the graveyard and due to the inscription becoming illegible it was recut in 1921 and placed on the east wall of the Crypt (Hirst, 1921:40).

With the removal of the plaster surrounding the monuments it was also revealed that below the small, rectangular, undated monument (019), dedicated to George Watkin, the fabric of the wall appeared to be very disturbed suggested by a crack running down the north edge of the monument. This is possibly an indication of a burial vault below the monument and behind the east wall. Exposed behind the tablet (019) were some late Victorian bricks

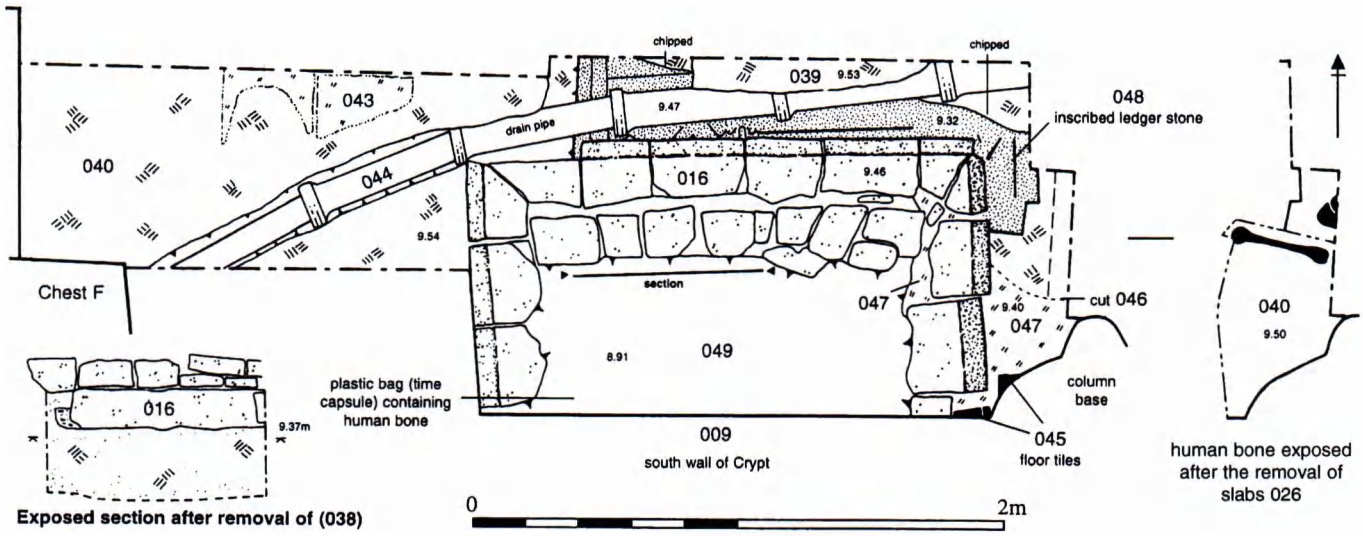

Fig.4 Plan of the base of Chest Tomb E

Plate 4 Bay 5 (south), Chest Tomb D after dismantling, exposing the stone slabs (035) and drain, looking south-west

covered in cement, onto which the inscription tablet could be firmly placed.

The other two wall monuments (017) and (020) appear to have been secured on the east wall of the Crypt pre-19th century. Behind the 17th-century wall tablet (020) dedicated to 'Son of Guildhall' who died 1683, were the fragmentary remains of red painted plaster which was certainly pre 1683 in date, possibly medieval. Located behind the oval shaped wall tablet (017) dedicated to the Donning family dating from 1692 to 1701, were also fragmentary layers of possibly 17th-century plaster. The mural tablet (017) is part of a larger monument originally placed in the Church (ibid, 37).

Dismantling and ground reduction below the Chest Tombs

Chest Tombs D, E and G were fully dismantled by Strachey and Strachey Conservation and their interior fills reduced to a level suitable for the installation of the damp proof membrane. It was found during the investigations inside the three Chest Tombs that they had each been dismantled previously, possibly as many as two or three times. None of the deposits exposed under the chest tombs were contemporary with their original construction and all of them contained disturbed human remains.

Evidence of Chest Tomb D being dismantled in the late 19th/early 20th century was suggested by the exposure of a ceramic redundant drain pipe, which was found to be underlying all of the interior fills of the chest tomb (Plate 4). Other possible occasions when it may have been dismantled were indicated by the three different mortars that had been used to bond the lower courses of the chest Tomb.

Chest Tomb E is made up of the recumbent effigies of a male and female carved out of alabaster, lying on a chest made up of four alabaster panels (Plate 5), all of which had already been dismantled in 1980 and the pieces laid out on staging. It was not until the interior of Chest Tomb E was excavated that it was revealed that the internal deposits had also been excavated previously in 1980. During the excavation of the lower internal fill of the chest tomb, a silver plastic bag was exposed and found to contain a collection of human bone accompanied by a note which read "Collected from the rubble core of the monument in July 1980, and re-buried under the new foundation. Michael Eastham, July 11th 1980". This therefore indicated that both the upper and lower internal fills of Chest E were redeposited in 1980. Unfortunately the 1980 excavation was conducted without archaeological supervision resulting in any evidence of whether Chest tomb E had been dismantled prior to 1980 being destroyed. Finds found in association with its rubble core suggest that Chest Tomb E had possibly been disturbed during the 17th and 19th centuries.

Chest Tomb G also appears to have been dismantled in the 19th century, as the mortar used to point the rubble core (031) and the mortar used to bond the two halves in the front panel (028) are a lime-based ash mortar characteristic of the 19th century.

Not only did the dismantling of the chest tombs reveal that they had been dismantled since their construction, but they also exposed some rather unexpected features. Located on the interior of Chest Tomb D, butting up against the base of the south wall of the Crypt were seven rectangular slabs (035) bonded with a mortar characteristic of the medieval period (Plate 4). All the slabs were gently sloping and leading down to the redundant ceramic drain pipe. The purpose of this drain-like feature, particularly as it is located beneath Chest Tomb D is unclear.

During the excavation of Chest Tomb E, 140mm below the present ground level, an extra bottom course to the chest tomb was revealed (Fig.4). It was formed out of limestone rather than the alabaster used for the rest of the Chest tomb and it consisted of twelve blocks of moulded/chamfered stone and a course of roughly squared blocks. Part of this base course was sitting on a bed of lime mortar (047) and was overlying a broken part of a ledger stone (048). If this base course was still in-situ, then it does suggest that the floor level in the Crypt was then at least 140mm lower than the current ground level.

A possible original lower floor level in the eastern section of the Crypt is further suggested by the exposure of three, still in situ, medieval floor tiles (045), located to the east of Chest Tomb E and butting up against the south wall of the Crypt. They were found to be bedded on the same lime mortar (047) as the chamfered limestone base (016), and were 138mm below the present ground level.

Lifting of the perimeter slabs/ledger stones and the reduced excavation conducted below the slabs

All the floor slabs abutting perimeter walls and Chest tombs were lifted in the west and east ends of the Crypt and the underlying deposits were reduced 100mm in order that chippings could be laid down as part of the damp coursing (Fig.3). It was noted by the conservators whilst lifting the floor slabs that there appeared to be two or three different mortar types visible on the slabs, perhaps indicating that the floor slabs had been lifted and re-laid previously, possibly as

Plate 5 Watercolour of the two alabaster effigies on Chest Tomb E and one of its side panels, from the Braikenridge Collection, painted by J Manning in 1827 (M.2422)

Fig.5 An illustration of the incised slab (027) covering Chest Tomb G, drawn by A G Hirst

many as two or three times, or the slabs had been reused.

The floor slabs were lifted in the western section of the Crypt first and were found to be lying on a deposit of grey friable ash mortar (052), containing a fragment of a medieval floor tile and finds 18th-century in date. This layer was removed throughout the western end of the Crypt exposing some medieval floor tiles still in-situ, suggesting that during the medieval period floor tiles were laid in the Crypt rather than the present limestone slabs.

Five medieval floor tiles (053) were found in Bay 1 along the south wall of the Crypt, just below the stone wall seat, and another seven (060) were located to the east of Chest G, in Bays 1/2, also along the south wall of the Crypt, just below the stone wall seat. Of the five floor tiles (053) one had incised decoration, the others were blank and they all lay 100mm below the present ground level. As for the floor tiles (060) they were slightly more disturbed than (053), with chipped edges. Three of the tiles had incised decoration and all seven tiles were laid at 9.32m OD. Both groups of tiles were laid on a bed of white lime mortar (054).

Also in the western end of the Crypt, located in Bay 2 next to the north wall (Fig.3) was the ledger stone (024) which when lifted, revealed a deep burial vault. The vault had been re-lined with modern imperial sized red bricks laid in a stretcher style. The vault measured 2.3m in length east to west, 1.4m wide north to south and 2.04m in depth and the bottom of the vault was located at a height of 7.33m OD. It was supported by two tie bars/spacers for coffins running north-south. Disarticulated human remains were visible in the bottom of the vault accompanied by fragments of disintegrating coffin furniture, which included the remains

Plate 6 Bay 1 (south) and Chest Tomb G, before conservation, looking south

of copper coffin plates. It appears that this vault was possibly re-lined and reinforced in the late 19th/early 20th century. The inscription on the top of the ledger stone is indecipherable, therefore a date for the burial was not obtained. As a result of lifting this ledger stone it was decided that the other perimeter ledger stones should not be lifted, preventing other potential burial vaults from being disturbed.

Also found during the reduced excavation in Bay 2 (north), next to the doorway, a deposit resembling a hardcore (056) was excavated. It was composed mainly of angular fragments of limestone, and contained various finds including pottery of 18th-century date (Appendix 4). Once this deposit was removed it revealed four limestone slabs (058), one of which appeared to be complete, the other three were probably the broken remains of ledger stones. Visible on one of the slabs were the letters 'DH' which had been inscribed on the stone. They were located at a depth of between 9.14m OD and 9.2m OD, approximately 220mm below the present ground level. It is therefore apparent from observing these broken ledger stones and the remains of the ledger stone under Chest E (048) that much disturbance has occurred in various stages to burial plots in the Crypt. During the reduced excavation at the base of the doorway into the Crypt, the northern edge of another potential brick lined burial vault was exposed, probably located beneath the ledger stone (061) (Fig.3). It was identified by a course of red bricks aligned east-west, similar to those visible in the other brick-lined vault.

The reduced excavation in the eastern end of the Crypt revealed similar deposits to that exposed in the western end. The floor slabs were found to be lying on a grey friable ash mortar (057) similar to the mortar under the slabs in the western end. It contained sherds of 18th-century pottery and occasional fragments of clay tobacco pipe. This layer was removed, exposing a deposit of brownish red sandy clay (059) containing frequent fragments of human bone, sherds of 18th-century pottery and a fragment of medieval floor tile. In Bay 5 along the north wall a rectangular limestone slab was exposed at 9.43m OD, its purpose was uncertain.

The reduced excavation conducted in both the west and east ends of the Crypt revealed a substantial quantity of disarticulated human remains which were not in-situ. This indicated that the deposits below the floor slabs have previously been disturbed, furthermore the burials and other finds suggest that the majority of the disturbance occurred during the 18th century and later. Part of the floor in the eastern end of the Crypt was certainly lifted in the 19th century in order that the drain pipe (044) could be laid.

The reduced excavation also revealed that the floor level

of the Crypt was originally lower than the present ground level. This was indicated by the exposure of the bottom course (016) to Chest Tomb E, which was constructed of chamfered limestone blocks certainly intended to be viewed. It was also confirmed by the discovery of in-situ medieval floor tiles, three of which were located next to Chest Tomb E (045), and the others, (053) and (060), in the western end of the Crypt.

CONCLUSION

Generally the Crypt has undergone a lot of disturbance, mainly during the 17th and 19th centuries and few medieval deposits survive. Few of the burials appear to remain intact (indicated by the presence of a large amount of human bone in the excavated deposits). Walls have been replastered several times resulting in little of the original medieval plaster surviving; the floor of the Crypt has been re-laid at least three times; burial vaults have been re-lined, c.1900, and the chest tombs dismantled previously.

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Maps Consulted

Georgius Hoefnagle 1581.

Jacobus Millerd 1673.

Braikenridge Watercolours, Drawings and Sketches Consulted

(In the possession of Bristol City Museum & Art Gallery)

M.2391 - St John's Gateway, E Bird (undated)

M.2392 - St John's Church and Tower Lane From Bell Lane, H O' Neill, 1820

M.2393 - St John's Conduit, G Delanotte, 1825

M.2394 - St John's Tower, H O'Neill,1821

M.2395 - Carved Stone Figures on Tower, T S Rowbotham, 1826

M.2399 - North Side St John's Church, M H Holmes, 1823

M.2401 - North Side St John's Gateway, H O' Neill, 1820

M.2405 - Tomb unknown in the Crypt, J Manning, 1828

M.2419 - Flat Stone on top of Tomb unknown in the Crypt, J Manning, 1828

M.2421 - Tomb of Thos. Rowley and Wife in Crypt, J Manning, 1828

M.2422 - Effigies on Tomb of Thos. Rowley and Wife in Crypt, J Manning, 1828

M.2423 - Cross on old tombstone in Crypt, Rowbotham, 1828

M.2425 - Crypt looking East showing oak screen, T S Rowbotham, 1826

M.2426 - Crypt Looking West, T S Rowbotham, 1826

M.2427 - Ancient Font taken out of south wall of Crypt, J Manning, 1828

Photographs Consulted (In the possession of Bristol City Museum & Art Gallery)

M.3641 - Volume 1, Crypt looking east in 1908

M.3606 - Volume 3, Crypt looking west in 1908

M.3607 - Volume 3, Crypt looking east in 1909

ACKNOWLEDGEMENTS

The writer would like to thank Richard Strachey and Neil Turner of Strachey and Strachey Conservation for their invaluable advice and co-operation during the fieldwork. The project was funded by the Churches Conservation Trust and many thanks owed to Catherine Cullis, the Director of the Churches Conservation Trust, for her patience and support. Thanks are also due to the authors of the specialist reports, Rod Burchill, Bruce Williams and George Nash and thanks finally to Ann Linge for preparing the illustrations.

THE ARCHAEOLOGY OF THE PARISH OF CLIFTON
With a note on the 833AD Boundary Survey of Stoke Bishop
by James Russell

INTRODUCTION

The former parish of Clifton lies immediately to the west of central Bristol. Until 1836, when it was annexed by the City of Bristol, the parish consisted of a roughly rectangular block of land measuring 3km from north to south and 1.6 km from east to west (Fig.1). It was bounded on the south-east by Bristol, on the west and south by the River Avon, and on the north and north-east by Stoke Bishop Tithing, part of the parish of Westbury-on-Trym. Most of Clifton is situated on a ridge of Carboniferous limestones and sandstones, rising towards the north to a height of over 90m above sea-level. These Carboniferous rocks are exposed only around the northern, western and southern fringes of the parish, being concealed elsewhere beneath deposits of Triassic marls and breccias. Along the western side of the parish the ridge is dramatically cut through by the Avon Gorge, now generally considered to have been formed during the Pleistocene period.

The Clifton of today is very much a product of the Georgian and Victorian periods. During the 18th and 19th centuries the area underwent rapid development, first as a fashionable health resort and later as a predominantly upper middle-class suburb of Bristol. In the early 19th century the topography of the southern end of the parish was greatly altered by the creation of the Floating Harbour and Cumberland Basin. Except for the broad belt of former common grazing land known as Clifton Down, which runs around its northern and western flanks, the area of the old parish is now almost wholly built up. Nevertheless the layout of the medieval village of Clifton remains clearly recognisable in the modern road pattern, while on Clifton Down earthworks of Iron Age and Roman date have been preserved. It is with this physical evidence for the development of Clifton prior to 1700 that the remainder of this paper is concerned.

PREHISTORIC AND ROMAN CLIFTON

Clifton Camp (Fig.2)

The most conspicuous archaeological site in Clifton parish is Clifton Camp, a pre-Roman Iron Age hillfort occupying the summit of Observatory Hill, a limestone outcrop on the edge of the Avon Gorge immediately to the north-east of the Suspension Bridge (NGR ST 5665 7330). Facing the Camp on the western side of the Gorge are two similar fortifications, Burwalls (now largely destroyed) and Stokeleigh. Until its destruction in 1893-4 a 'ford' consisting of a natural ridge of rock in the riverbed is said to have allowed passage at low tide across the Avon from below Clifton Camp to the mouth of the Nightingale Valley, separating Burwalls and Stokeleigh (Seyer 1821, 61, Tratman 1946, 177). Like its counterparts across the river Clifton Camp is multivallate, with remains of three concentric rings of dry-stone ramparts. In 1480 the pioneering antiquary William Worcestre described these defences as 'a large circle of great stones piled up, and small ones scattered around, most remarkable to see' (Neale 2000, section 56); they are heavily obscured by trees and scrub. The original entrance was probably on the east side, where there are mutilated traces of outworks (Fig.2, a). Behind the innermost northern rampart is a series of depressions, probably originating as quarry-pits for the defences, which may subsequently have been re-used as house-sites (Lloyd Morgan 1900, 15-18, Burrow 1981, 76, 235-6).

No finds of Iron Age material so far appear to have been made within Clifton Camp; the presumably contemporary Stokcleigh Camp has however been shown by excavation to have been occupied from c200BC to the Roman conquest (Haldane 1975). Coins of 'Nero, Domitian, Trajan and other Roman Emperors' are said to have been dug up in or near Clifton Camp during the 18th century (Barrett 1789, 10) while further finds of 4th-century coins were reported in 1895 (Hudd 1895, 146).

There is ample evidence for more recent re-use of the Camp's interior. Occupying the north-west angle of the Camp is a roughly rectangular enclosure (Fig.2, b) defined by a low bank with an external ditch. Running south-eastwards across this, parallel with the edge of the Gorge, is another, more substantial bank some 40 cm high (Fig.2, c). Both these features are almost certainly of medieval date and were presumably connected with the control of animals grazing on the hill-top. In the south-west corner of the Camp is the 'Observatory', a windmill tower of 1766 converted and extended in 1828-34 by the artist William West to house telescopes and a camera obscura (Fig.2, d; McGrath 1975, 196, 427-8). Immediately to the north of the Observatory a large oval depression, clearly visible only in dry weather, marks the site of a reservoir excavated in 1845 as part of an abortive water-works scheme designed by I K Brunel for the Society of Merchant Venturers (McGrath 1975, 413-26). In addition to the reservoir itself (backfilled in 1848) traces can be seen of the narrow channel left by a pipeline (Fig.2, e)

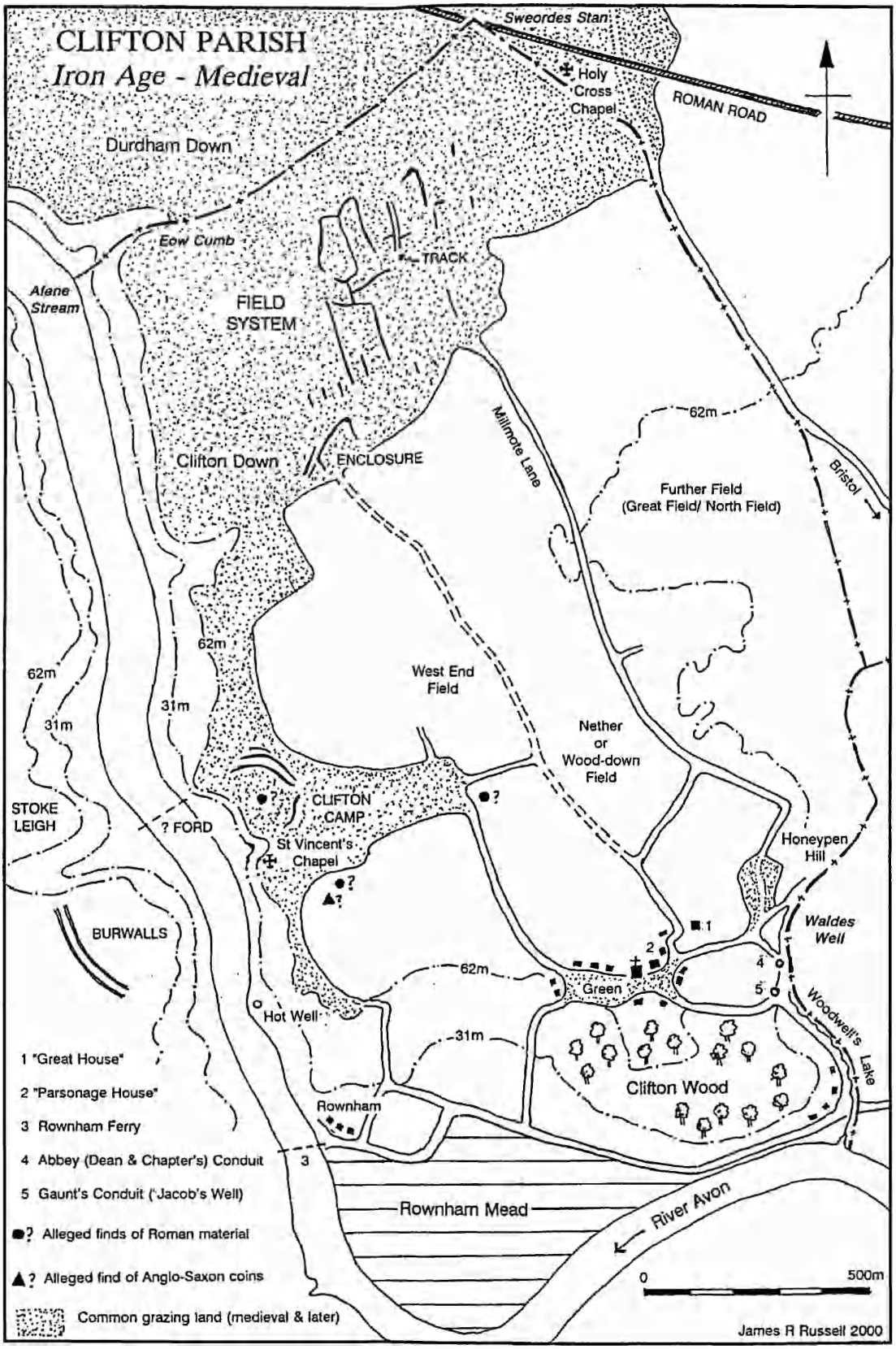

Fig.1 General plan of the parish of Clifton showing the main Iron Age, Roman and Medieval features referred to in the text

through which water would have been pumped to it from the Black Rock spring in the Avon Gorge.

The Clifton Down Field System (Fig.3)

On Clifton Down, approximately 1km to the north of Clifton Camp, are extensive remains of an early field system. These were first planned and published over a century ago by a local doctor, Arthur Bancks Prowse (Prowse 1893). Born near Plymouth in 1856 Prowse moved to Bristol soon after completing his medical studies in 1881, and joined the staff of Bristol Royal Infirmary in 1883, remaining there until his retirement in 1919. During World War I he joined the Royal Army Medical Corps, being placed in charge of a large military hospital in Bristol with the rank of Lieutenant-Colonel (for detailed biographies see Roper 1925, Campbell 1987, xii, and Trans Devonshire Association 57, 34-5). An expert botanist, Prowse was a prominent member of the Bristol Naturalists Society from 1883 until his death in 1925, serving for long periods as Librarian and Treasurer, and as President between 1901 and 1903. At the same time he was an active field archaeologist, taking a special interest in the antiquities of his native Dartmoor, where he spent many of his holidays. He contributed a long series of papers on aspects of the history and archaeology of the Moor, well illustrated with workmanlike sketch-plans, to the Transactions of the Devonshire Association, and in March 1894 became a founder member of the Dartmoor Exploration Committee (Timms 1994, 11). In the Bristol area Prowse's published archaeological output was more limited, consisting only of his Clifton Down paper and a second article on another group of 'Ancient British remains' near Long Ashton (Prowse 1896); late in life, however, he joined forces with the egregious Albany Major in his investigation of the 'Mystery of Wansdyke', helping him locate a possible linear earthwork on the northern slopes of Dundry Hill (Major 1924, 30, 32, 37, Gardner 2000, 59).

From his archaeological publications Prowse emerges as a highly competent observer and recorder of earthwork detail but as very much a man of his time in matters of interpretation. His background in Dartmoor archaeology is evident throughout his Clifton Down and Long Ashton articles, not always with the happiest of results. Modern readers may well be confused by his reference to the Clifton Down field-banks as 'tracklines', the term used by Dartmoor antiquaries of Prowse's generation to describe the major boundary structures now recognised as of Bronze Age date and known as 'reaves'. Elsewhere lines of post-medieval lead-workings and spoil-heaps are misinterpreted as prehistoric 'defensive pits' and 'tumuli'. These infelicities of interpretation, coupled with its publication in a non-archaeological journal, have led to Prowse's pioneering fieldwork on Clifton Down receiving less attention than perhaps it deserves.

In 1978 an instrumental survey of the field system at a scale of 1:2500 was carried out by the present writer in collaboration with Messrs N Clough and R Iles. The resulting plan, prepared at the time by Rob Iles, was checked on the ground and redrawn with minor additions by the present writer in February 2000 (Fig.3). This detailed work has confirmed the general accuracy of the 1:10000 sketch plan published by Prowse in 1893. In its present form the system covers an area of some 24ha between Clifton Down Road and 'Ladies Mile', centred on ST 568 745. The fields are roughly rectangular, between 40 and 60m wide and up to 150m long. They are defined by low banks of limestone rubble and laid out on a consistent north-north-west/south-south-east alignment. It will be seen from the plan that the boundary-banks are discontinuous, having been considerably eroded by post-medieval mining and quarrying as well as more recent disturbances; the surviving stretches are in general between 1.5 and 2m wide and 10 and 40cm high. At ST 5687 7455 the system is intersected by a contemporary embanked trackway (Fig.3, a), approximately 3m wide and running north-south.

To the south of the fields, on the sloping edge of the Down facing the Zoological Gardens, Prowse recorded a trapezoidal enclosure cut through and partially destroyed by Clifton Down road (ST 5673 7410). While the northern edge of the enclosure is now obscured by scrub, its eastern and western ends are still visible, the latter being readily identifiable from its proximity to a prominent 'monkey-puzzle' tree. The enclosure has the same general orientation as the field-system and is presumably contemporary with it, although the bank which defines it, approximately 3m wide, appears to be rather more substantial in character than those surrounding the fields. Some 200 m to the north-east is a works depot known as the 'Ranger's Pound', consisting of a roughly circular stone-walled yard surrounded by an oval hedge-bank and a modern fence (ST 5687 7426). While recognising that these features were in themselves relatively recent, Prowse speculated that they might represent re-use of a prehistoric 'hut-circle'; this however seems unlikely.

The Clifton Down field system cannot be precisely dated and could have been in use at any time between c200BC and 400AD. However the elongated shape and relatively large size of the fields, inviting comparison with those surrounding the Lye Hole villa at Wrington (Fowler 1978, 30), tends to make a Roman rather than a pre-Roman date seem most probable.

Other Sites and Finds

The only prehistoric objects so far reported from Clifton parish are a few Neolithic/Bronze Age flint scrapers and arrowheads said to have been found near Clifton Camp (Grinsell 1969, 7, 9) and a Late Bronze Age socketed axe-head found in the Avon near the entrance to Cumberland Basin (ST 5679 7250) in 1870 (Pritchard 1904, 330, Grinsell 1968, cat 68a). Alleged 18th and 19th century discoveries of Roman coins within Clifton Camp have already been noted; further specimens are said to have been found in considerable numbers, along with Anglo-Saxon silver pennies of Ethelred II, during the construction of houses 'near the Camp in 1783-4, probably either in Sion

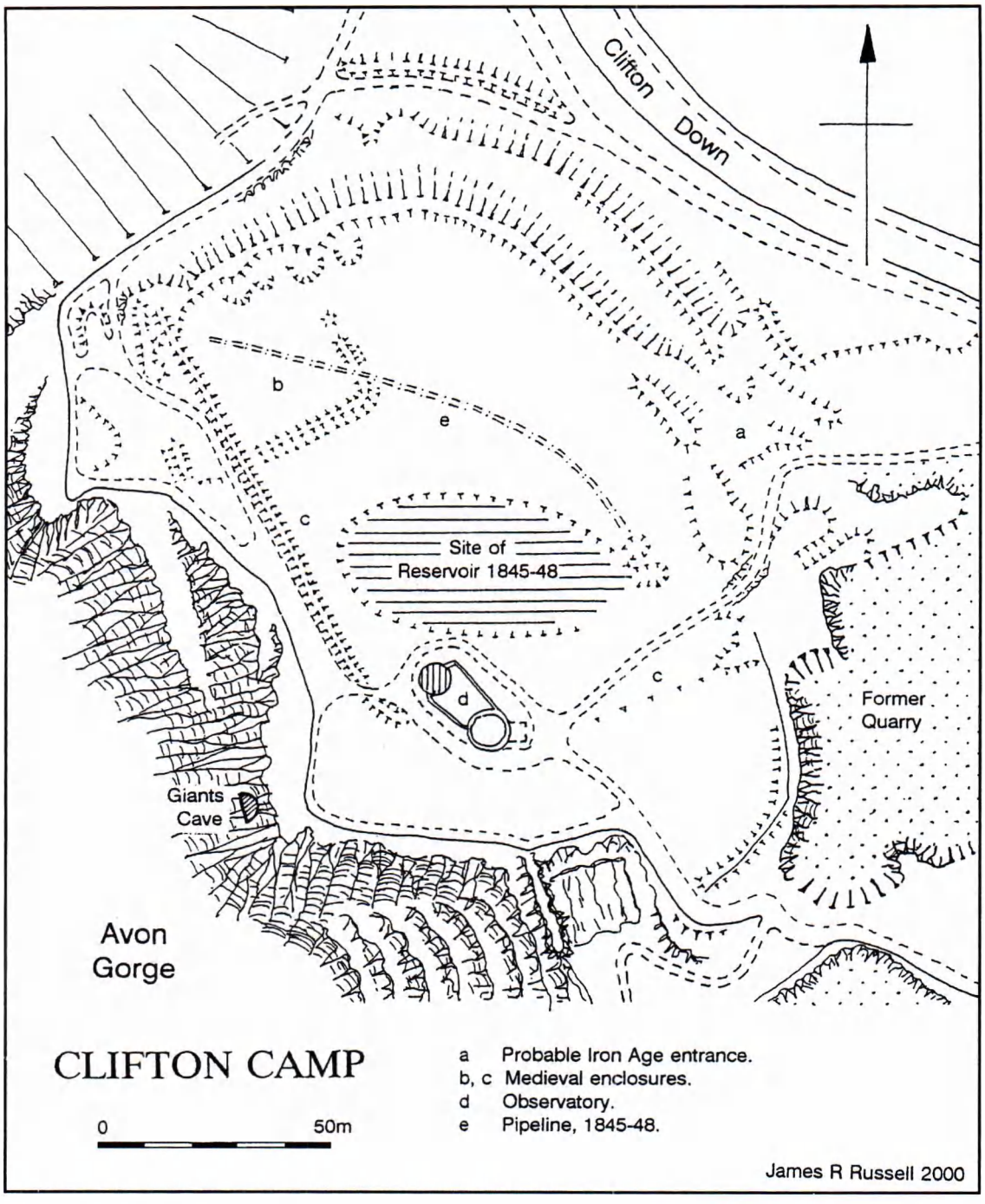

Fig.2 Plan of Clifton Camp

Row (ST 5670 7315) or Gloucester Row (ST 5680 7320) (Barrett 1789, 10, 15). In 1885 a coin of Probus was found near Whatley Road on the eastern edge of the parish (ST 576 742 approx; Proc Clifton Antiquarian Club 2, 92) while in 1965 two Constantinian coins were discovered at the junction of Constitution Hill and Jacob's Wells Road (ST 5770 7285; subsequently bequeathed to Bristol City Museum (BRSMG Acc 02017-02018) by the finder, Mr Beaven).

More intriguing than these chance coin finds is the material allegedly found, according to Barrett (1789, 10) by General Sir William Draper while 'levelling the ground near the Camp', probably for the construction in 1763 of his retirement home, 'Manilla Hall', at the south-eastern end of Clifton Down (ST 5705 7330; demolished c1900). Draper's finds are said to have consisted of 'a curious Roman Urn with two handles, tiles, bricks and broken potsherds'. If genuine, these suggest the presence of a substantial Roman building, probably a villa. It is however possible that Draper, who had received a thorough classical education at Eton and Cambridge prior to his distinguished military service, and doubtless regarded himself as the modern embodiment of Roman martial virtues, may have invented these finds to foster the impression that his porticoed

mansion, named after his glorious if ultimately inconsequential 1762 victory over the Spanish, occupied the site of an ancient Roman general's praetorium! Certainly nothing has since been found to substantiate Draper's supposed discoveries. In 1998 an area of some 3500 square metres to the rear of Rodney Lodge, immediately to the south-east of the site of Manilla Hall (ST 5710 7324) was evaluated by Bristol & Region Archaeological Services prior to redevelopment. The evaluation produced only 18th- and 19th-century material; since however it consisted only of five 1 metre-square test-pits this negative result cannot perhaps be regarded as conclusive (Williams 2000, 76).

SAXON AND MEDIEVAL CLIFTON

The Medieval and Early Post-Medieval Landscape

The first mention of the medieval manor of Clifton,'the farmstead on the rocks', occurs in Domesday Book compiled around 1086 AD. Here we are told that during the reign of Edward the Confessor the manor had been held from the king by Saewine, the reeve (praepositus) or chief official of the adjacent town of Bristol. Since the conquest Saewine had been replaced at Clifton by a Norman, Roger fitz Ralph. We are informed that between them the lord and his tenants possessed five plough teams; reference is also made to 8 acres of meadow-land (Moore 1982, 170b). Clifton at Domesday was a very small community, consisting of only 15 families. Its population was not to increase significantly until well into the 17th century; as late as 1608 there appear to have been no more than 18 men in the parish fit for military service (Smith 1608, 236).

While Domesday Book provides the earliest direct documentary reference to Clifton, its existence as a land-unit can be inferred at least two centuries earlier. The parish is enclosed and defined to the north and east by the Tithing of Stoke Bishop, the boundaries of which are described in a land charter of 883AD. In view of its topographical significance this boundary survey is discussed in more detail in the Appendix below. Three of the survey landmarks, Eowcumg, Sweordes Stan and Waldes Well, are located on the common boundary between Stoke and Clifton, each marking a corner of the parish. To the north-west Eowcumb (Yew combe) can be identified with the deep gulley on Durdham Down now known as Walcombe Slade (ST 5648 7460; Sweordes Stan (Sword's Stone) corresponds with the north-east angle of the parish, located west of the water-tower on Stoke Road, close to the line of the Roman route from Bath to Sea Mills (ST 5706 7503). To the south-east Waldes Well (Woodland Well) was probably located in the valley between Clifton Wood and Brandon Hill, now occupied by Jacob's Well Road, formerly Woodwell Lane (ST 577 729).

The manorial history of Clifton between the 11th and 17th centuries is complex and at times obscure, involving numerous changes of ownership. By the late 15th century the estate had become divided into a 'greater manor', itself split since the 14th century between three owners, and a 'smaller' or 'ecclesiastical' manor, associated with the patronage of the parish church, carved out from the main estate in 1463 by Bishop Carpenter of Worcester and given to the College at Westbury-on-Trym, which he had recently re-founded. It was not until the late 17th century that the various segments of the estate were reunited under a single proprietor, the Society of Merchant Venturers (Ellis 1879, Jones 1992, 7-10, 28-36). Perhaps as a result of this subdivision few medieval documents relating to the manor appear to have survived. Two valuable post-medieval sources are however easily accessible in print - a 1625 survey of the 'smaller manor' (Upton Way 1913) and a map of the whole manor and parish prepared in 1746 by Jacob De Wilstar (Latimer 1900). From these two records the topography of the medieval and early post-medieval parish can be reconstructed with some confidence.

As can be seen from the accompanying plan (Fig.1) the layout of medieval Clifton was relatively simple. At the southern end of the parish, occupying an area of riverine alluvium now bisected by Cumberland Basin, was Rownham Mead, a common meadow originally divided into unfenced strips. Here, no doubt, were situated the eight acres of meadow mentioned in Domesday Book. From the 12th century onwards there is documentary evidence for a small riverside settlement on the north-western edge of the meadows; an important ferry ran from here across the Avon, controlled by the Abbot and monks of St Augustine's Abbey, Bristol, who used it regularly to reach their estates at Abbots Leigh (Beachcroft & Sabin 1938, 184-5, 262-3; Sabin 1960, 4, 155, 159; Neale 2000, sections 52, 54, 437). Elias, the late 12th century lord of Clifton, appears to have had his manor-house here (domo mea apud Reueham; Walker 1998, cat 598). Piecemeal small-scale housing development, mostly by and for artisans, along the road and river frontage between Rownham and Jacob's Wells Road seems to have begun around 1645 (Jones 1992, 53-5). At the foot of Jacob's Wells Road the White Hart Inn, a fine late 17th-century gabled structure with a projecting bay over the central entrance supported on wooden pillars, survived until 1877 (ST 5783 7260); Winstone 1968, plate 115, 1972, plate 64). Further west the gabled rear block of the still extant Spring Gardens Tavern (ST 5729 7252) may also be of 17th century origin.

North of this low-lying riverside strip the ground rises steeply. At the head of the slope lay the nucleus of medieval Clifton, consisting of the parish church of St Andrew and a number of farmhouses and cottages, replaced in the 18th century by the elegant villas of Bristol merchants, grouped round a roughly rectangular green which still survives, albeit in a somewhat truncated form. A pound for stray animals is recorded by De Wilstar at ST 5735 7287. A spur to the south-east of the green was occupied by Clifton Wood, still in existence in 1625 as a 'coppiced wood' of 30 acres (Upton Way 1913, 226) but replaced by gardens and pasture by 1746.

Reference has already been made to documentary evidence for a possible late 12th-century manor-house in the riverside hamlet of Rownham. As we have seen, ownership of the later medieval and early post-medieval manor of

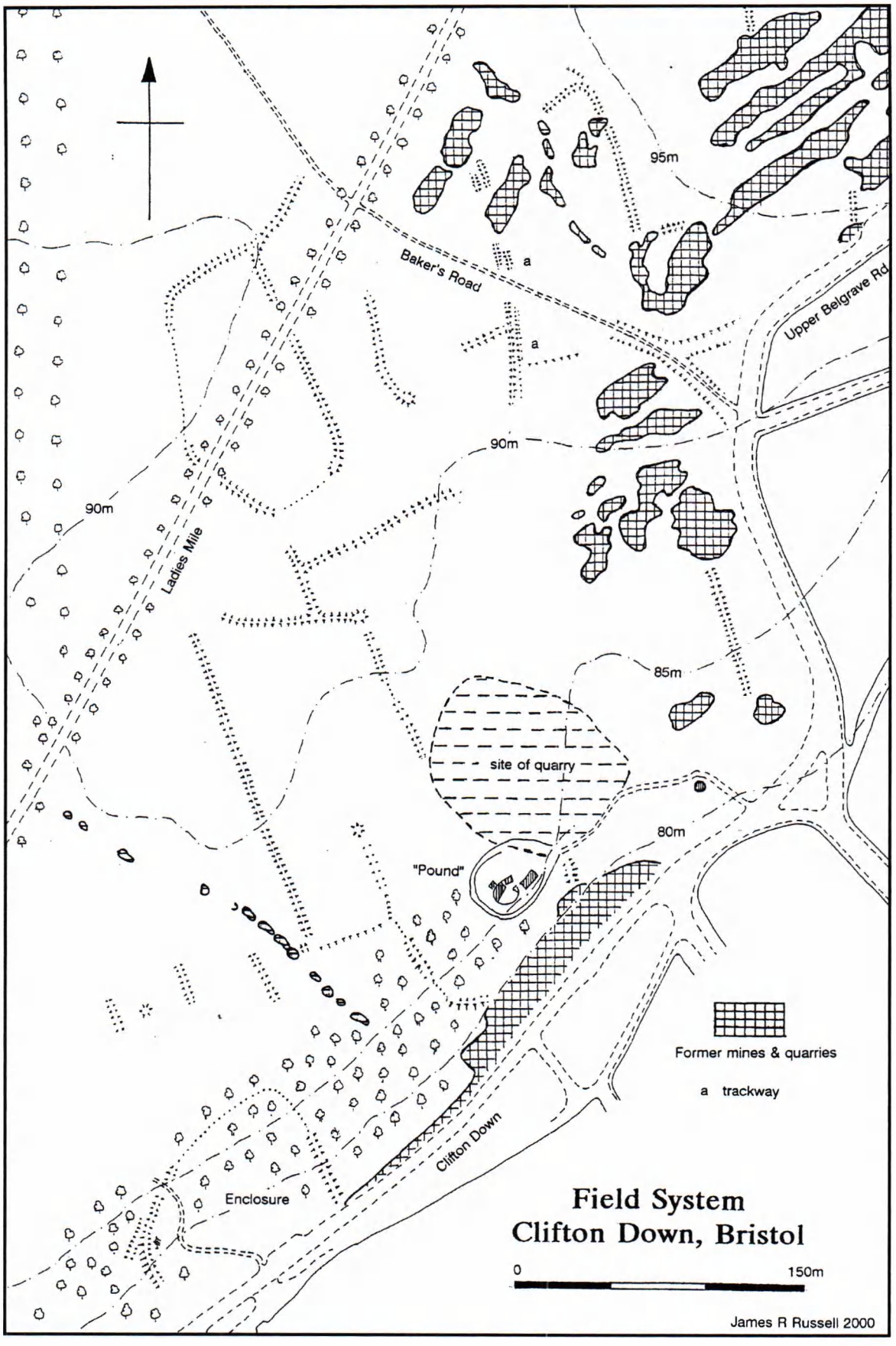

Fig.3 Plan of the Clifton Down Field System

Clifton was divided and largely absentee. The nominal centre of the 'greater manor' appears to have been located south of the present York Place, where a large 18th-century residence is still known as the 'Manor House' (ST 5750 7301). This occupies the approximate site of the 'Great House' or 'Old Castle', leased by the Merchant Venturers in 1700 to the Phippen family (Upton Way 1913, 223; Jones 1992, 15) and still shown as held by them on De Wilstar's map of 1746. In 1700 this property was referred to as ruinous, having 'hitherto burnt down'; it may well have been one of the many houses in Clifton destroyed by Prince Rupert in August 1645, prior to the second siege of Bristol (Jones 1992, 18-19). The focus of the 'smaller' or 'ecclesiastical' manor, created by Bishop Carpenter in 1463, was the 'Parsonage House', situated, according to the 1625 survey, immediately to the east of St Andrew's Church (ST 5742 7292; Upton Way 1913, 225). Parts of this structure may still survive behind the fine early 18th-century facade of the present house on the site, now occupied by the Bishop of Bristol.

The area to the north of Clifton village, roughly in the centre of the parish, was occupied by the open arable fields of the medieval settlement. The survey of 1625 indicates that despite much piecemeal enclosure parts of three such fields containing unfenced strips - Further Field (also known as Northfield or Greatfield; Jones 1992, 12), West End Field and Nether or Wood-Down Field, were then still in existence; their approximate locations can be determined from the plot descriptions in the survey and are indicated on Fig.1. By 1746 enclosure was complete, although the former open-field furlongs remained discernable in the strip-like pattern of field boundaries recorded by De Wilstar. The area was traversed by several tracks or footpaths, mostly running north-south; the most important of these was the present Pembroke Road, referred to in the 1625 survey as 'Millmote Lane'.

This central zone of arable land coincided almost precisely with an area of Triassic marls and breccias, producing relatively fertile red clayey soils. To the north and west, where these Triassic deposits give way to outcrops of Carboniferous limestone with a much thinner soil cover, lay Clifton Down, the main common grazing area in the parish. This great belt of common land extended northwards beyond the parish boundary into the Tithings of Stoke Bishop and Westbury; this northern area, now known as Durdham Down, appears in medieval sources as Thyrdhamdoune or Trydlanddowne, in reference to the adjacent settlement of 'Thirdland', the present-day Redland (Ralph 1961, 5). Clifton and Durdham Downs narrowly escaped large-scale enclosure in the late 18th and early 19th centuries and since 1861 have been a carefully protected public open space. While the regular grazing of sheep had been abandoned on Clifton Down by the mid-19th century it continued on Durdham Down until 1924; as late as 1909 the mournful bleating of strays from the Durdham Down flock was said to be causing annoyance to guests at the Clifton Down Hotel near the Suspension Bridge! The cessation of regular grazing on the Downs has been described as an 'ecological disaster'; the previously close-cropped open slopes of the Avon Gorge have since become 'engulfed in a degenerate form of secondary woodland', while the quality of the grassland and its flora has been impoverished by mechanical mowing (Micklewright & Frost 1987).

Considerable areas of Clifton Down are scarred by traces of mining for lead and other non-ferrous metals, cutting through and partly obscuring the earlier field remains described above (Fig.3). This mining activity appears from documentary sources to date from between the late 16th and early 18th centuries. In 1574 the Clifton parish register records the deaths of two Mendip miners who had been 'stifled with smoake' while digging 'for tynne and lead' near Shortgrove, a field on the north-east edge of the Down close to the present Worrall Road (ST 572 745; Campbell 1987, 17). Grants of mining rights on the Downs are recorded in 1611 and 1712; these however were made by the lords of the manor of Henbury, whose jurisdiction was theoretically restricted to Durdham Down (Ralph 1961, 6, 12; Gough 1967, 171). Lying parallel to Upper Belgrave Road (ST 570 747) is a series of large trenches which probably mark the site of the 1574 tragedy. Some 500m to the south-west a line of gullies and spoil-heaps, representing the exploitation of a single vein of ore, runs north-westwards from ST 5680 7419 to ST 5665 7429. On his 1893 plan of the field system A B Prowse shows this feature, which he misinterpreted as prehistoric 'defensive pits' and 'tumuli', extending north of 'Ladies Mile', where a second line of gullies lay parallel with it to the south-west; this area has since been levelled. Elsewhere on Clifton Down further zones of mining are represented by amorphous groups of pits without clear orientation.

Quarrying in Clifton prior to 1700 seems to have been largely confined to the deposits of hard sandstone ('Brandon Hill Grit') to be found in the south-east corner of the parish around Clifton Wood and Honeypen Hill (Savage 1988, 92-3). A grant of stone, probably from this source, was made to St Augustine's Abbey by Roger of Clifton at the beginning of the 13th century (Walker 1998, cat 599). By the early 17th century the limestone outcrops along the Avon Gorge were also beginning to be rented out for exploitation, though mainly as a source of lime rather than of building stone (Upton Way 1913, 243, 245; Savage 1988, 91).

Religious Buildings

As already noted, the original parish church of Clifton, dedicated to St Andrew, occupied a central position within the main settlement area, on the north side of the village green (ST 5741 7293). While the church may well have been of pre-Conquest origin no early documentation survives. Nearly all previous writers on Clifton (for example Jones 1992, 7) have traced the history of the church back to c.1154, when the patronage of the living is said to have been granted to St Augustine's Abbey, Bristol. This is however incorrect, since the grant concerned, made by William 'de Clifdon', actually relates to Clevedon in

Somerset (Walker 1998, cat 6, 23, 34). The earliest verifiable reference to ecclesiastical provision for the parish occurs in 1278, when Thomas de Cantia was presented to the living by the then lord of the manor, John de St Lo (Bund 1902, 97).

The general appearance of the medieval church in its final years is recorded in early-19th-century drawings and engravings (Jones 1992, Fig.30). The west tower, small, square and pinnacled, had windows and other detailing in the Perpendicular style, suggesting a 15th century date. The body of the church, consisting of nave, aisles, south porch and disproportionately small chancel, seems to have been largely rebuilt in 1654 (probably as a result of damage during the Civil War) and underwent further remodelling in 1716 and 1768. Between 1819 and 1822 a new, much larger church was constructed to the designs of James Foster on a site immediately to the north. After a brief period during which both buildings stood side by side the old church was completely demolished, its masonry being deposited in a quarry near Harley Place (Green-Armytage 1922, 22-9; Jones 1992, 52-3, 97-9). The new church was itself demolished to foundation level in 1954 after being blitzed in 1940. The approximate outline of the old church is now marked out by low hedges; this was probably done early this century at the instigation of Dr A B Prowse, who in addition to his botanical and archaeological interests was a deeply committed Evangelical Christian and a devoted churchwarden of St Andrew's from 1888 to 1915. During this time he greatly improved the appearance of the graveyard surrounding the old and new churches by planting trees and flowering shrubs, and made a valuable transcript of the early parish registers (Campbell 1987, xii).

Facing on to the village green immediately to the south-west of the old church, approximately on the site of the present 1822 gateway to St Andrew's Walk, was the 'Church House', a gabled structure of uncertain date probably used originally for parish business and festivities but latterly as a poor-house; it was demolished in 1819 (Green-Armytage 1922, 30-1 and illustration facing page 20).

As well as St Andrew's Church two chapels are recorded in Clifton parish prior to the Reformation. Both, like the church, have now entirely vanished. Their origins are obscure, although since our knowledge of them comes almost entirely from the notes compiled in 1480 by the antiquary William Worcestre it seems probable that both were founded no earlier than the 15th century. One of these chapels, dedicated to the Holy Cross, is referred to only briefly by Worcestre (Neale 2000, section 141). It was situated on Thyrdham Doune (Durdham Down) in the north-east corner of the parish and was almost certainly identical with a 'Chapel of St Lambert' mentioned as a landmark in this area in a 1627 survey of the Clifton parish boundaries (Upton Way 1913, 245-6). The conjectured site of the chapel is marked on earlier Ordnance Survey maps to the east of the water-tower on Stoke Road at ST 5723 7491.

The second chapel, dedicated to St Vincent, receives more extended treatment from Worcestre, who returns to it at least six times in the course of his jumbled jottings (Neale 2000, sections 55, 63, 65, 66, 405 and 437). Unfortunately these notes fail to provide a fully coherent picture of the appearance and exact location of the chapel and its associated hermitage. A few facts do however emerge. The chapel was situated on the eastern edge of the Avon Gorge, somewhere within the 200 metre long stretch of cliffs fringing Observatory Hill and the eastern abutment of the Suspension Bridge; this area, known today as 'St Vincent's Rocks', is referred to by Worcestre as 'Ghyston Cliff'.

Worcestre states that the chapel lay '20 fathoms' (120ft or 36.5m) below the highest point of the cliff (the top of Observatory Hill); this appears however to have been a diagonal rather than a vertical measurement, created by stepping or pacing up the sloping side of the gorge (Neale 2000, section 66). The chapel was separated by a distance of 16 yards (15m) from the living quarters of the resident hermit or warden, which consisted of a hall and kitchen (Neale 2000, section 65). One of the wardens, Thomas Dene, is mentioned in a document of 1492 (Warren 1907, 205).

It has traditionally been assumed that St Vincents Chapel was associated in some way with the 'Giant's Cave', a natural cavity in the cliff face of Observatory Hill, approximately 20m below its summit (ST 5650 7322). Since 1837 the cave has been approached through an artificial tunnel descending from the Observatory above; prior to this, however, access was possible from the cliff-top along a narrow ledge in the rock-face, probably following a prominent diagonal bedding plane still to be seen to the north of the cave (Warren 1907, 205). During clearance of the cave floor in 1837 various artefacts were discovered sealed beneath a flat stone slab; these included considerable quantities of pottery, an 'antique key', a large glazed floor-tile and 'portion of a mullion of a small gothic window' (Nicholls & Taylor 1881, 249). This material was for many years preserved in the Observatory but has since been dispersed; the pottery was however examined in 1891 by the experienced antiquary Frederick Ellis and confirmed as medieval (Ellis 1891, 162). These finds have encouraged the belief that prior to the commencement of quarrying in the area in the 17th and 18th centuries there was a much larger ledge in front of the cave, wide enough to accommodate the chapel and hermitage, which seem from Worcestre's description to have been at least partly free-standing structures. This theory appears however to be negated by another passage in Worcestre's notes which seems to refer to the Giant's Cave, under the name of 'Foxhole', as a feature entirely separate from the chapel (Neale 2000, section 64).

If the traditional location of St Vincent's Chapel is rejected an alternative site may be suggested further south, on the spur of rock now occupied by the eastern pier of the Suspension Bridge. On 12 September 1789 the itinerant Swiss artist Samuel Hieronymous Grimm, then lodging in Sion Row with a 'Mrs Rossignol', made a 'View of the Windmill Camp' from his window. This drawing, now in Bristol City Art Gallery (BRSMG Ma3701; Fig.4A), shows in the background what is now Observatory Hill, dominated by the ruined windmill tower now incorporated in the

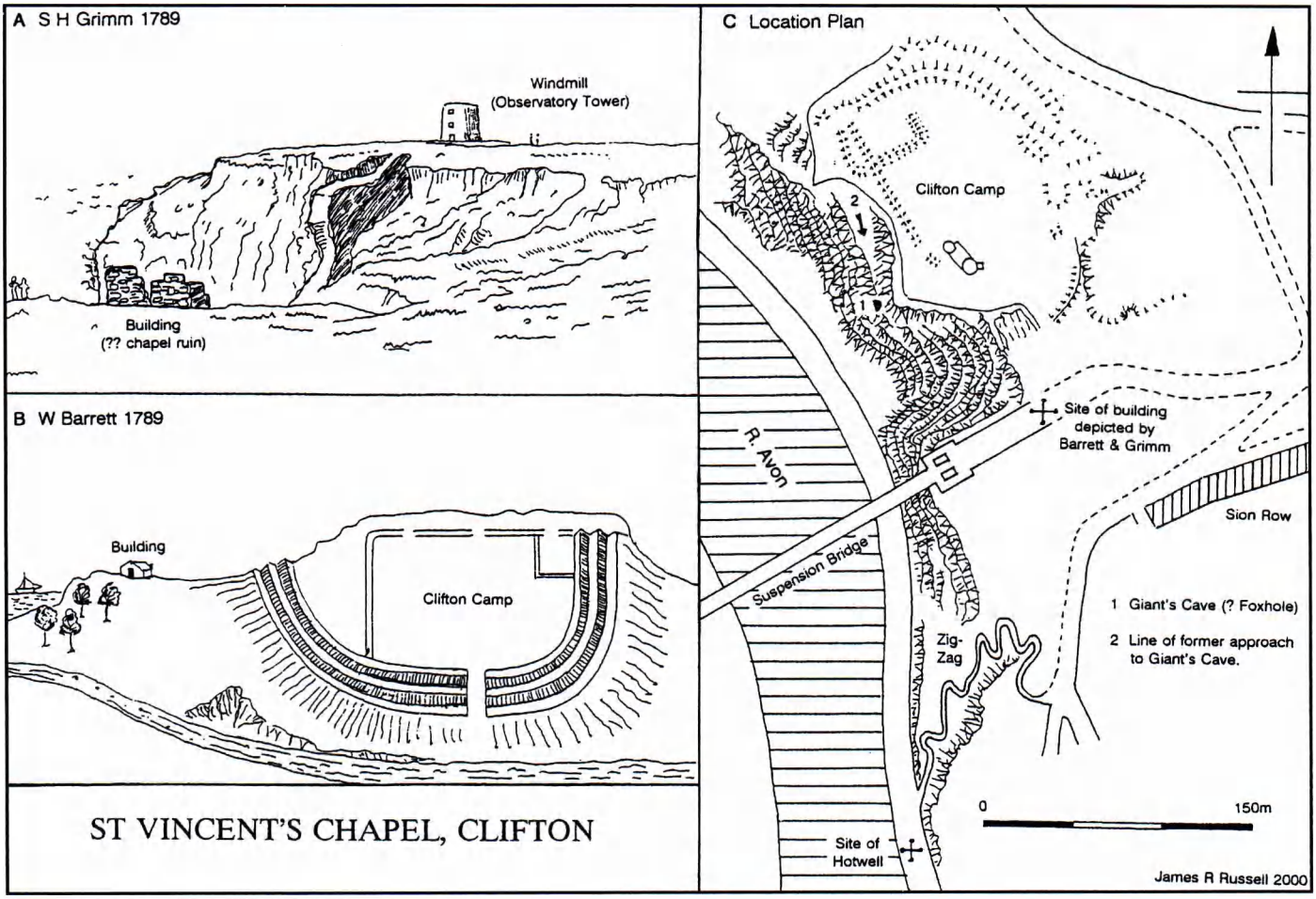

Fig.4 The site of St Vincent's Chapel.
A. Extract from drawing by S H Grimm, 12 September 1789 (Bristol City Art Gallery; BRSMG Ma 3701).
B. Extract from drawing by W Barrett, 1789.
C. Location plan.

Observatory. In the left foreground, on the cliff edge at the foot of the hill, Grimm depicts a second ruined building, lacking any dateable architectural features but seemingly of some antiquity. The same structure appears again in William Barrett's 1789 illustration of the 'Roman Camps on the River Avon' (Barrett 1789, facing page 19; Fig.4B). Here it is shown roofed, with a door in the east wall and an apparent chimney in the north-west corner; Barrett's drawing is however extremely schematic and these features may well be interpolations by his engraver. The status of this sructure is hard to assess; while it may have been nothing more than a post-medieval squatter's hovel or shepherd's hut (as the details of Barrett's version might tend to suggest) it remains possible that it represents the last vestiges of St Vincent's Chapel. Sadly its site (ST 5660 7215) is no longer available for investigation, having been obliterated in 1837-43 by the eastern approach road to the Suspension Bridge.

Springs and Conduits

Clifton's transition from 'medievel' to 'modern', from a small agricultural community to a fashionable place of resort and residence, may be said to have begun in 1696, when the first pump-room was constructed over the 'Hotwell' spring at the southern end of the Avon Gorge (ST 5652 7289). This thermal spring was first mentioned in 1480 by William Worcestre, who described it as 'warm as milk or the waters at Bath' (Neale 2000, sections 64, 240). Efforts to promote the spring and its highly questionable medicinal properties were begun in the 1630's by John Bruckshaw, but it was not until after a visit by Queen Catherine of Braganza in 1677 that its popularity began to grow markedly (Waite 1960; Hawkins & Kellaway 1991, 180-7).

Of much greater practical significance during the medieval period was a group of springs rising along a geological fault line in the valley between Brandon Hill and Clifton Wood, on the south-eastern boundary of the parish (Hawkins & Kellaway 1991, 190-1). As already noted this valley, traversed by Jacob's Wells Road, formerly Woodwell Lane, was the probable site of the 883 boundary landmark Waldes Well (Woodland Well). A small stream running down the valley into the Avon is described as Sandbrook in a Bristol charter of 1188 (Harding 1930, 8-9), but as

Wodewilleslake (Woodwell's lake) in the great boundary perambulation which defined the newly created County of Bristol in September 1373 (Harding 1930, 154-5).

Early in the 13th century Roger, lord of Clifton, granted springs and watercourses near Wodewelle to St Augustine's Abbey, apparently with the aim of improving the supply to a pre-existing conduit leading to the Abbey, which had been founded c.1148 (Walker 1998, cat 599). The conduit-head, described as the Pypehedde in Abbey accounts of 1491-2 and 1511-2 (Beachcroft & Sabin 1939, 168-9, 186-7, 190) still exists below the western side of Gorse Lane, near its junction with Jacob's Wells Road (ST 5770 7292). The underground structure was surveyed in detail by members of the Temple Local History Group in July 1987 (Temple Local History Group 1987). From the spring itself water flows eastwards in a channel of hollowed stone blocks for a distance of 9 metres before turning southwards, close to the south-east corner of 59 Jacob's Wells Road, for a further 7 metres. Two freestone doorways with four-centred arched heads originally gave access to the tunnel, the vault of which also has a four-centred profile; these features suggest that the structure was remodelled in its present form around 1500. From here the lead pipes of the conduit ran southwards down Jacob's Wells Road before continuing eastwards around the foot of Brandon Hill to a 'water-house' in the Abbey cloisters, described in 1634 as 'a fair conduit of freestone and leads with many spouts' (Fletcher 1932, 15). Following the dissolution of the Abbey ownership of the conduit passed in 1542 to the Dean & Chapter of Bristol Cathedral, who maintained the water supply until 1888, when it was donated to Bristol Corporation to feed the newly constructed Jacob's Wells Baths (Vaughan & Martelett 1987, 11).

Approximately 50 metres to the south of the source of the Abbey Conduit is a second spring, the so-called 'Jacob's Well', situated behind a range of 19th-century buildings at the junction of Jacob's Wells Road and Constitution Hill (ST 5769 7287). This formed the head of the 'Gaunt's Conduit' which originally supplied water to St Mark's, or the Gaunt's, Hospital on College Green, established as an independent institution by Robert de Gournay in 1232. The spring was investigated by members of the Temple Local History Group in 1987, during the reconstruction of the building enclosing it, and was subsequently partly surveyed by Mr John Bryant of Bristol City Museum in 1988 (Vaughan & Martelett 1987, Emanuel & Ponsford 1994). Clearance of sludge from a small opening at the base of the rear retaining wall of the 19th-century building revealed steps leading down to a natural cleft in the sandstone bedrock containing the spring, which rises at a constant 53 degrees Farenheit. The original entrance to this fissure, enclosed and partly concealed by later masonry, has a massive freestone lintel supported by jambs consisting of a mixture of freestone blocks and pennant sandstone slabs. In May 1987 some 'hieroglyphics', badly mutilated to provide keying for later rendering were found to have been incised on the face of the lintel; these were identified by Mr Robert Vaughan of the Temple Local History Group as probable Hebrew characters, an interpretation subsequently confirmed by Mr Ralph Emanuel, who deciphered from them the word sochalim ('flowing'). From this discovery has developed the theory that the spring and the stonework around it represent a mikveh or ritual bath used by the small Jewish community resident in Bristol between c1100 and 1290, when they were expelled from England by Edward I. It has been noted in support of this theory that the spring lies little more than 150m south-west of a supposed pre-expulsion Jewish cemetery, the so-called 'Jews Acre' or 'Jews Churchyard', an area on the slopes of Brandon Hill now occupied by Queen Elizabeth's Hospital (ST 5770 7300; Emanuel & Ponsford 1994, 75, 81). Gravestones with Hebrew inscriptions are said to have been discovered here during the construction of the school in 1843, only to be destroyed or reused in the school foundations without detailed record (Pryce 1861, 23).

The identification of 'Jacob's Well' as a possible mikveh has generated considerable interest and met with general and largely uncritical acceptance. One authority has described it as a discovery of 'international significance' and a 'rare trace left by one of the earliest immigrant communities to these shores', which 'has, so to speak, put Britain on the mikveh map' (Kadish 1996, 135). This interpretation of the site rests however on a series of assumptions which are distinctly questionable. The doubtful practicality of the spring-head as a place of ritual immersion, given its cramped dimensions, severely limited headroom and sloping rock floor (as indicated by the published survey drawings) may perhaps be put to one side. Critical attention must however be drawn to the statement by the main proponents of the mikveh theory that the spring was presented to the city of Bristol in 1373 by Edward III, having previously been confiscated by the crown, along with all other Jewish property, following the expulsion of 1290 (Emanuel & Ponsford 1994, 85). This must be presumed (since no documentary source is cited!) to be a reference to an important charter of 1373 by which Edward raised Bristol to county status. Examination of the published text of this charter (Harding 1930, 142-165) reveals however no reference to such a grant, merely passing mentions (as landmarks in the accompanying boundary perambulation) to Wodewilleslake and the Abbey Conduit.

Other, more relevant, documentary evidence suggests a quite different history for the spring. It has already been noted that it formed the head of a conduit leading to St Mark's Hospital on College Green. Between 1235 and 1245 Ignacius, the lord of Clifton, granted to Henry de Gaunt, the first mater of the Hospital 'all that messuage, with the curtilage and spring contained therein .... which Matilda, widow of Simon de Clifton, once held .... for the purpose of digging & leading away the water', subject to an annual rental of 3 shillings (Ross 1959, cat 431). This grant, which almost certainly relates to what we now know as 'Jacob's Well', gives no indication of a previous Jewish presence on the site. The spring supplied St Mark's Hospital until the latter's dissolution in 1539, after which it passed in 1541, along with the Hospital's other properties, into the hands of

Bristol Corporation. Rental for the spring was still paid by the Corporation to the manor of Clifton; by 1672 this rent 'for the use and benefit of a fountain and spring or well of water commonly known as Jacob's Well' had been increased to 12 per year (Jones 1992, 33). Repairs to the well are recorded in the City Chamberlain's accounts for 1627-8 (Livock 1966, 104). This latter reference is the earliest instance known to the writer of the name 'Jacob's Well' being applied to the spring; apparently an allusion to the story of Jesus and the Samaritan woman in John 4, 5-30, it probably originated in the late 16th century, when post-Reformation availability of the Bible in English, coupled with increasing levels of literacy, would have led to greater popular familiarity with biblical texts. Under Corporation control the former Gaunt's Conduit continued to serve properties in the area north of College Green until 1888, when its waters, like those of the nearby Abbey Conduit, were diverted to supply Jacob's Wells Baths (Vaughan & Martelett 1987, 11).

It will by now be apparent that any connection between Bristol's pre-expulsion Jewish community and 'Jacob's Well' must have ceased some time prior to 1235/45, when the rights to the spring were acquired by St Mark's Hospital. If one sets aside the proximity of the poorly-recorded 'Jews Churchyard' the only substantive evidence for such a connection is the lintel inscription. While this cannot be lightly dismissed, attention must nevertheless be drawn to the abraded and fragmentary nature of the inscription and to the apparently substantial discrepancy between the forms of the characters as recorded by Mr Bryant and those outlined in chalk on site by Mr Emanuel (Emanuel & Ponsford 1994, figs.3 & 5). Further archaeological and epigraphic examination of the lintel (and indeed of the site as a whole) is clearly called for, especially since it appears possible that additional sections of the inscription may await discovery beneath later patches of rendering. Until this work is carried out the claimed status of the site as 'Britain's only known medieval Jewish ritual bath' must regretfully be regarded with considerable scepticism.

CONCLUSION

In the previous sections of this paper evidence has been presented for three phases of early settlement within the parish of Clifton - Iron Age, Roman and medieval. Of these the first is represented by Clifton Camp. The relationship between Clifton, Burwalls and Stokeleigh Camps has long been a matter of speculation. While varying in their internal area between 1.7 ha (Clifton Camp) and 3.0 ha (Stokeleigh) all three fortifications are closely comparable in the scale and complexity of their defences, and there is no reason to suppose that they were not all occupied simultaneously. It is possible to see them as forming a co-ordinated defensive scheme designed to control movement both along and across the Avon (Bond 1995, 120). From what we know, however, of the nature of Iron Age society it seems far more likely that they were the product of mutual hostility and competition between three distinct tribal units whose territories converged on the natural boundary formed by the river and gorge.

The Roman period is represented in Clifton principally by the 18th-century reports of finds in the Clifton Camp area and by the field remains on Clifton Down. The former, if reliable, point to a continuing focus of settlement around the Camp; the material allegedly found by General Draper suggests that this included at least one substantial building. It is unfortunate that no more recent finds have been made to authenticate these supposed early discoveries. It is all the more important, therefore, that any future evaluations carried out in advance of building development in this part of Clifton should be on a sufficiently large scale to identify any remaining evidence for Roman occupation. The fields on the Down must represent only a fraction - the fortuitously preserved outer fringe - of the arable land in Roman Clifton, the bulk of which would have been situated further south, in the same area as the open fields of the medieval village. The marginal location of the surviving fields suggests that they were the result of a relatively brief period of agricultural expansion, such as that which seems to have occurred in the Romanised parts of the West Country during the late 3rd and early 4th centuries AD. The embanked trackway incorporated in the field system would have linked the assumed settlement area around Clifton Camp with the main road from Bath to Sea Mills, which runs across the north-eastern tip of the medieval parish.

As a land-unit, the medieval parish of Clifton is unusually discrete and compact, cutting across the grain of the landscape to incorporate a variety of terrains and soil-types. It is defined to the west and south by the natural barrier of the Avon and to the north and east by Stoke Bishop Tithing, whose boundaries, as we have observed, seem to have been established before the end of the 9th century AD. As will be seen from Fig.1 there is a marked and significant similarity in orientation between these medieval boundaries and the Clifton Down field system, which is unlikely to have continued in use beyond the end of the 4th century AD. Although during the post-Roman centuries there was evidently a southward shift in the focus of settlement from the vicinity of Clifton Camp to the area around St Andrew's Church, it is arguable that the boundaries and general layout of the medieval parish and manor were inherited with relatively little change from the Roman estate which preceded it.

APPENDIX: The 883AD Boundary Survey of Stoke Bishop (Fig.5)

In the year 883 Aethelred, *Ealdorman* or governor of Mercia under King Alfred, obtained from the religious community associated with the minster church at Berkeley an estate of 12 hides at *Stoce*, the area now known as Stoke Bishop immediately to the north of the parish of Clifton. He proceeded to grant this land to a follower, Cynulf, for a period of three lives, with reversion to the Bishopric of Worcester, which subsequently retained it until the Reformation. The charter recording these transactions (Sawyer 1968, S218) is accompanied by a boundary survey consisting of a list of landmarks, the majority of which can

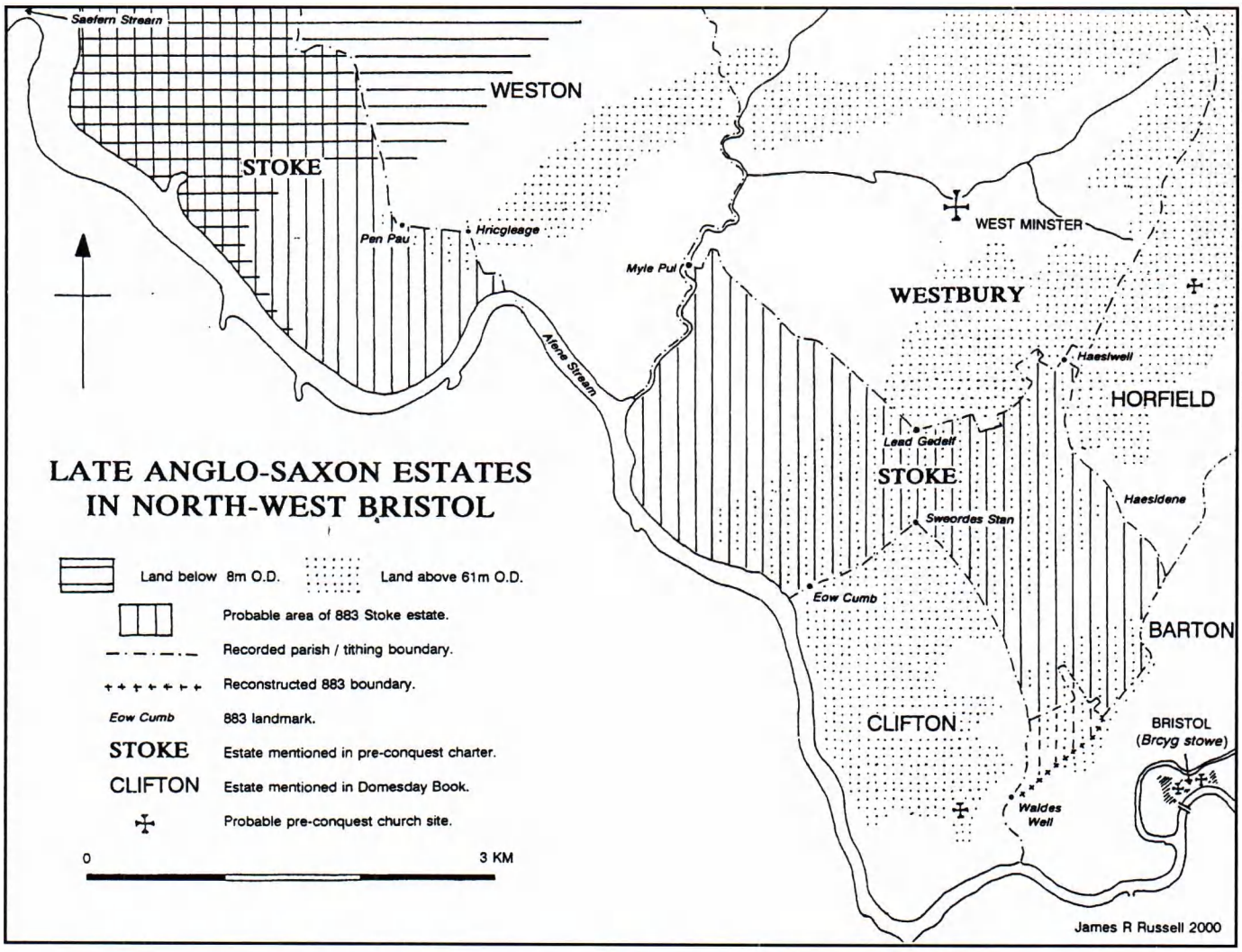

Fig.5 Map of late Saxon estates in North West Bristol, showing the 883 boundaries of Stoke Bishop

be identified with place-names recorded in medieval or later sources. The survey indicates that the Stoke estate comprised two blocks of land, corresponding with the later Tithings of Stoke Bishop and Shirehampton. These were separated by the estate referred to in Domesday Book as *Westone* (Moore 1982, 163a), later subdivided into the Tithings of Kings Weston and Lawrence Weston, which was evidently retained by the Berkeley minster, remaining as an outlying member of the great Berkeley estates for much of the medieval period.

The 883 survey can de divided into eleven clauses of which numbers 1-5 and 9-11 define respectively the south-eastern and north-western sides of Stoke Bishop Tithing, while numbers 6-8 delimit the northern, landward boundary of Shirehampton Tithing between the Rivers Avon and Severn. In the following commentary it has been assumed that the 883 boundaries correspond closely with the recorded Tithing boundaries, except at the southern end of Stoke Bishop Tithing where some adjustments to the boundary seem to have taken place following the establishment of the town of Bristol in the 10th century. It will be noted that in most cases the landmarks indicate points where there is a significant change in the direction of the boundary.

The 883 survey has been subjected to several previous analyses. The earliest of these attempts, by Thomas Kerslake (1881) succeeded in correctly identifying the landmarks defining Shirehampton Tithing but was hopelessly at sea in all other respects. One of Kerslake's demonstrably erroneous identifications, of the landmark *Haesldene* with the gorge cutting through the Blaise Castle Estate, has unfortunately won official acceptance, with the result that the stream running through the gorge has been quite unjustifiably christened 'Hazel Brook' by the Ordnance Survey! A far more creditable performance is that by the Rev C S Taylor (1910, 127-30) which forms the foundation of the interpretation by the present writer given below. Later efforts by Grundy (1935/6, 223-31), Lindley (1959) and Everett (1961) cannot be said to have improved on Taylor; those by Grundy and Lindley in particular have in many respects served only to muddy the waters.

More recently (1999) Mr D H Higgins has made a valuable comparative study of previous commentaries on the 883 survey from Taylor onwards. The interpretation of

the survey put forward by Mr Higgins himself is essentially the same as that of the present writer, differing significantly only in the placement of the landmark *Waldes Well*. Mr Higgins has also attempted a fresh analysis of the boundary surveys attached to two later charters of 969 and 984 (Sawyer 1968, S1317 & S1346) by which Bishop Oswald of Worcester leased sections of the Stoke estate to his thegn Aethelweard. These surveys, which appear to define relatively small areas at the north-west end of Stoke Bishop Tithing, are much more difficult to interpret, since they lack the readily identifiable proper names which are such a useful feature of the 883 survey.

(1) *Aerest of Haeslwellan in Haesldene*

First from Hazel well to Hazeldene.
Hazel well cannot be precisely identified. Its position within the survey suggests however that it was situated close to the north-east corner of Stoke Bishop Tithing (ST 5815 7622) not far from an early 19th-century house, now demolished, called 'Springfield'. Near here is the source of a small stream, now known as the Cran Brook, which flows south-east towards the River Frome, running parallel with the modern Cranbrook Road. The Cran Brook formed the boundary between Stoke Bishop Tithing and the parish of Horfield, and there are good grounds for identifying the valley through which it runs with the second landmark, *Haesldene*. In the 1299 survey of Henbury and Stoke in the Red Book of Worcester, part of the Bishop of Worcester's demesne is described as lying *juxta Cote versus Boure et Haseldene et versus Triddelong*; *Cote* lies alongside Westbury Road at the north-west end of Durdham Down. *Boure* was probably the now-demolished Coldharbour Farm, which lay north of Redland at ST 5789 7565, while *Triddelond* is Redland itself (Hollings 1950, 377). On the eastern, Horfield side of the brook the 1843 Horfield tithe map shows fields called 'Haselton' and 'Great Haselton' (ST 586 753 approx; Amesbury *et al* 1997, 58-9); these are stil lcommemorated by the nearby Hazelton Road.

(2) *Thonne of Haesldene on Waldes Wellan*

Then from Hazeldene to Woodland Well.
Near the junction of Cranbrook Road and Gloucester Road (ST 5885 7474) the Tithing boundary leaves the Cran Brook and runs south-south-west across the Kingsdown ridge. In the vicinity of Myrtle Road, off St Michael's Hill (ST 5840 7360) the Tithing boundary, by now coterminous with the 1373 boundary of the City of Bristol, bends abruptly to the north, encompassing the upper end of St Michael's Hill in a series of right angled turns before continuing westwards to join the Clifton parish boundary near the western end of Tyndalls Park Road (ST 5787 7357). The unusually angular character of this sector of the Tithing boundary strongly suggests a post-Conquest adjustment in favour of the developing town of Bristol, probably finalised by 1188, when *Bewell,* a spring at the northern end of St Michael's Hill (ST 5815 7391; marked on Rocque's 1746 map of Bristol) is mentioned as a landmark in the earliest boundary survey of the town (Harding 1930, 8-9). It may be suggested that from Myrtle Road the pre-Conquest boundary of Stoke continued its gently sinuous course south-westwards across the northern slopes of Brandon Hill to meet the Clifton boundary in Jacob's Wells Road, the former Woodwell Lane (ST 577 729 approx). A reference to *Wodewelle* in an early 13th-century charter (Walker 1998, cat 599) has already been noted in section 3(c) of this paper, and in view of this it does not seem unreasonable to identify *Waldes Well* with one of the group of springs rising in this locality. (It should perhaps be noted that Taylor, Everett and Higgins have all identified *Waldes Well* with 'Mother Pugsley's Well', a spring located at the north-eastern end of the Kingsdown ridge, between the present Clare Road and Nugent Hill (ST 5882 7415). This would however create a greater deviation from the recorded Tithing boundary than the identification proposed above, since a direct line from 'Mother Pugsley's Well' to the next 883 landmark, *Sweordes Stan*, would run diagonally through the middle of the south-eastern sector of Stoke Bishop Tithing).

(3) *Of Waldes Wellan on Sweordes Stan*

From Woodland Well to Sword's Stone.
From the probable site of *Waldes Well* the boundary between Stoke Bishop Tithing and Clifton parish ran northwards, roughly along the line of Whiteladies Road and Blackboy Hill, on to Durdham Down. Here the boundary continues along Stoke Road as far as ST 5706 7503, where it turns abruptly to the south-west. This point, close to the line of the Roman road from Bath to Sea Mills, and marked today by a group of late 18th-early 19th-century mere-stones, seems the likeliest site for the fourth landmark, *Sweordes Stan*.

(4) *Of Sweordes Stan in Eowcumb*
From Sweord's Stone to Yew combe.

(5) *Of Eowcumb in Afene Stream*

From Yew combe to the River Avon.
From *Sweordes Stan* the boundary continues south-west across Durdham and Clifton Downs, its course being marked at intervals by further mere-stones. The last of these stones, at ST 5648 7460, is situated at the head of a large and deep gulley, Walcombe Slade, down which the boundary passes to reach the Avon at ST 5623 7442. This ravine is described in documents of 1608 and 1702 as 'Yookham Slade' and 'Oakham Slade' respectively, and can be confidently identified with the *Eowcumb* of the 883 survey; several yews still exist around its head (Lindley 1959, 101).

(6) *Of Afene Stream eft up th'on Hricgleage*

From the River Avon once more up then to Ridge lea.
We now follow the north bank of the Avon downstream for some 3 km, past the mouth of the River Trym, to ST 5605

7674, where the boundary of Shirehampton Tithing begins. From the river the boundary runs uphill in a north-westerly direction, across Shirehampton Park and Shirehampton Road, until the southern edge of Penpole Wood is reached. Just within the wood, at ST 5385 7722, the boundary turns due west. This point, on the crest of the Pen Pole ridge, is the most probable location for *Hricgleage*.

(7) *Thonne of Hricgleage th'on Pen Pau*
Then from Ridge lea to Pen Pole.

(8) *Of Pen Pau theat on Saefern Stream*

From Pen Pole to the River Severn.
The boundary now continues westwards along the limestone ridge through Penpole Wood until the ruins of the 18th-century Penpole Lodge (ST 5728 7728) are reached. Here the boundary turns again to the north-west, dropping down from the ridge into the marshy areas alongside the Severn. Here, following the line of a winding drainage ditch, the Shirehampton Rhine, it passes through the heavily industrialised outskirts of Avonmouth to reach the Severn at Elbury Gout (ST 5132 7980).

(9) *Of Haesl Wellan eft th'on Lead Gedelf*

From Hazel Well then again to the Lead Diggings.
We now return again to our original starting point at the north-east corner of Stoke Bishop Tithing (ST 5815 7622). From here the northern boundary of the Tithing follows a somewhat circuitous course south-westwards towards Durdham Down, which it crosses near the present White Tree roundabout (ST 5723 7579). Undulations in the surface of the Down south-west of the roundabout, towards the top of Parry's Lane, point to the presence of filled-in quarries or mine-workings; the British Geological Survey refers to the limestone strata in this locality as 'highly mineralised' and notes that galena (lead ore) has been observed in excavations for roadworks (Kellaway & Welch 1993, 154).

(10) *Of Lead Gedelf on Myl Pul*

From the Lead Diggings to Mill Pill
From Durdham Down the Tithing boundary runs west-north-west, following first Parry's Lane and then, west of ST 5616 7640, an unsurfaced track leading towards the River Trym and the site of Clack Mill (ST 5541 7691), finally demolished in 1937. The mill's medieval predecessor is described as *apud Mullpullen* in a survey of 1299 in the Red Book of Worcester (Hollings 1950, 380) while 'Millpill Fields' are shown on Isaac Taylor's 1772 plan of the adjacent Clack Mill Farm (Bristol Record Office, BRO 26570).

(11) *Of Myl Pul in Afene Stream*

From Mill Pill to the River Avon.
From Clack Mill the western boundary of Stoke Bishop Tithing follows the course of the River Trym southwards to its junction with the River Avon at Sea Mills (ST 5493 7580).

ACKNOWLEDGEMENTS
The writer would like to express his thanks to Messrs Nick Clough and Rob Iles for their assistance with the 1978 survey of the Clifton Down field system, and to Mr David H Higgins for kindly supplying a copy of his 1999 study of the Stoke Bishop boundary surveys in advance of full publication.

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A GROUP OF 1850'S CLAY PIPE KILN WASTERS FROM WELLINGTON ROAD, ST PAULS, BRISTOL

by Ian Beckey

INTRODUCTION

In December 1998 contractors working for S.W.E.B. dug a trench for new electricity cables with an associated inspection chamber in Wellington Road, St Pauls, formerly known as Victoria Road and later Rope Walk (Fig.1). This trench cut diagonally across the road at a depth of approximately 2m.

During the course of these excavations a layer of clay tobacco-pipe material approximately 80mm thick was observed at nearly 2.0m below the present road surface in the excavated inspection chamber pit almost opposite the Phoenix Public House = No 5 Victoria Road on Fig.1 (NGR ST 5959 7342. With the permission of the contractors, a small rescue excavation was carried out by the author in the pit dug for the inspection chamber in a rectangular area of 1.5m x 1.0m.

The waste clay pipe group overlay a red sandstone layer and consisted of broken pipe bowls, stems (including green glazed tips), lumps of clinker, ash, fragments of kiln muffle and small pieces of pipe clay. The deposit was sealed by various banded layers of demolition rubble, clay, small stones, coal and ash and seemed to spread over a much larger area than could be excavated. It must therefore be assumed that the kiln-waste group was part of a much larger dump which should be fully examined whenever the opportunity arises. Further trenches were dug by the same contractors in the vicinity of the deposit during early July 2000, but unfortunately no observations were made and no other waste material was recovered.

THE PIPES

On examination of the pipes it was noted that some had broken stems whilst others were badly discoloured by overfiring in the kiln, which would have made them unsaleable. Other pipes such as types 4 and 7 have a crack on the bowl and one of the type 8 bowls has evidence of copper staining on one side. Additionally, some of the leaf decoration pipes had poorly defined leaves and many have not been properly trimmed or registered, which might indicate worn moulds. None of the pipes had been smoked. Each bowl had a stem bore diameter of 1/16" and all decoration was in relief. The number of examples of each type of bowl recovered is listed below (Table 1). All pipes are illustrated full size in Fig.2.

Type	No. of Examples
1	8
2	1
3	1
4	1
5	3
6	1
7	1
8	6
9	3
Total of pipe bowls recovered: 25	

Table 1

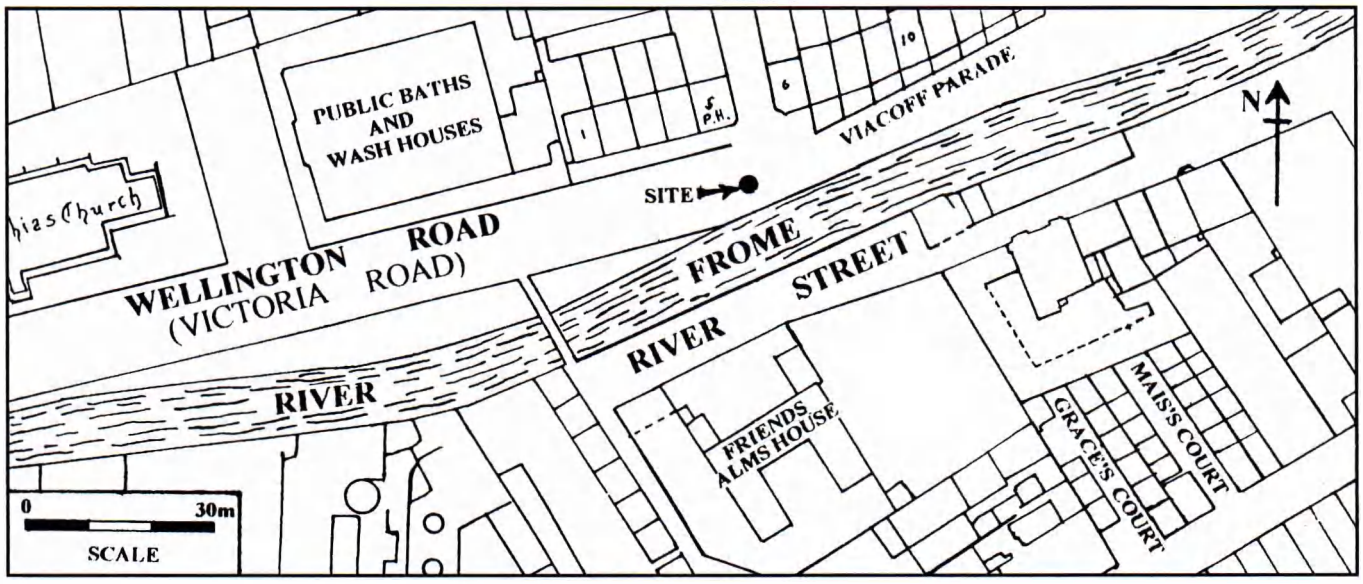

Fig.1 Site location plan based on Ashmead's map of 1855

Types 1-2	Plain bowl with spur
Types 3-5	Bowl with oak leaf decoration up the front and back mould-line
Types 6-7	Bowl with a leaf decoration up the front and back mould-line
Type 8	Bowl with oak leaf decoration up the front and back mould-line, bunch of grapes on both sides and multi-pointed stars on each side of the spur
Type 9	Bowl in the form of a human head in the style of a military figure wearing a cocked hat with chinstrap and a collar with a but ton decoration on the tunic

DISCUSSION

In 1855 a new road (Victoria Road) was constructed along the course of the River Frome with the possibility of the river being culverted at the same time. The pipe waste was deposited in an area close to the river to enable the road surface to be levelled up along the new alignment (Ashmead 1855). Very often pipe waste was used in this way because it made a reasonably solid base and could easily be transported by cart from any nearby pipe factory (Price et al 1984). Examination of both documentary and archaeological evidence suggested a mid-1850s date for the deposition of the pipe waste from the Wellington Road site.

Close to the waste group's location is a row of Italianate brick-built terraced houses (Numbers 11-15 Wellington Road, originally numbered 1-5 Victoria Road) of a style which became popular in the 1840-50s following the return of wealthy visitors returning from the Grand Tour of Europe. This was reflected in the creation of a new Italian style of architecture which included Queen Victoria's Osborne House. These houses are stylistically very similar to a row of houses constructed in 1853 at St George's Road, Hotwells, Bristol (NGR ST 578 725) and make a useful comparison. Examination of earlier maps including Mathews (1815), Donne (1821), Ashmead (1828 and 1846) and Chilcott (1838) show the area as being undeveloped with no indication of a new road on the same alignment and no changes were apparent on any map until Ashmead's in 1855. Next to Numbers 1-5 Victoria Road was a row of terraced houses named Viacoff Parade which were shown on the 1855 map. They presumably had some connection to the Crimean War but so far no information has come to light to prove this. It should also be noted that the nearby St Matthias Parish Church was consecrated in 1852 (St Mat PR). Next to the church, new baths and wash-houses were built which opened on 12 August 1850. This followed the establishment of a Bath and Wash-House Committee by the City Council in 1847 because of concerns over public health following outbreaks of cholera in Bristol in both 1845 and 1849 (Large & Round undated).

The bowl in the form of a human head (Fig.2, Type 9) is of particular interest and requires further explanation as it is probably a representation of the head of a British military figure such as a general, admiral or cavalryman from the Crimean War period 1853-6. This war fought by Britain, France, Ottoman Turkey and Piedmont (Sardinia) against Russia was the biggest military campaign Britain had been involved in since the Napoleonic Wars, and as a measure of its scale required almost half of the British Army and Royal Navy to be there. A brief background to the campaign is given as this has some bearing as to why Crimean pipes are important when dating kiln waste groups.

Following a dispute over the custody of Holy Places in the Ottoman Empire between the Catholics and the Green Orthodox, Russias's Tsar Nicholas I demanded that they should have protectorate rights over all Orthodox subjects but this was refused by the Sultan of Turkey. Russia then invaded Wallacia and Moldavia in July 1853 and destroyed the Turkish fleet at Sinope in November 1853. This caused outrage in Britain and France and many people felt that Russia was expanding its sphere of influence into Levant and the Balkans, thus threatening the British Empire. Therefore, to prevent Russian expansionism both Britain and France declared war on Russia on 27 March 1854 although there was little action until an expeditionary force landed in the Crimea on 14 September 1854 to destroy the Russian Naval Base at Sevastopol. Because there was no clear strategy on how Russia should be dealt with, hostilities dragged on until the winter of 1855 but on 30 March 1856 Britain, France, Austria and Russia signed the Treaty of Paris to bring the war to a close (Balthorp 1990).

The British public and national press in particular were very enthusiastic when the British Government declared war on Russia (Royle 1999) and newspaper reporters like William Howard Russell of The Times went to the Crimea to report on events at the front, together with artists such as William Simpson (Barthorp 1990). The enthusiasm for the war must also have filtered down to various pipemakers who realised that the Crimea campaign might produce new pipe -selling opportunities and this has been shown to be the case judging by the number of military-headed pipes from Bristol and elsewhere. These sites include Bath Road (Price & Jackson 1984), Temple Back (Beckey & Jackson forthcoming), Lawrence Hill (Beckey, Baker & Jackson forthcoming) and Great Ann Street (Beckey & Baker forthcoming).

Because Britain was only directly involved in the Crimea from 27 March 1854 to 31 March 1856 it is provisionally possible to date the pipe group to around this time. However, it should be noted that it is not unusual to see production of pipes continuing for several years after a particular event due to the fact that steel pipe-moulds were expensive to produce. Therefore, to obtain maximum return on investment, a pipemaker would have to make full use of his moulds until they were either too worn/damaged, or if the subject was no longer of interest to the public.

Of particular relevance is that the Type 9 design is exactly the same as a pipe found in Great Ann Street, St Judes (NGR ST 5977 7345). This pipe was part of a kiln waste pit group (known as Group 2) which was found in the yard area between 58 Great George Street and 49 Great Ann Street (or the Three Tuns Public House as it was known, Fig.4).

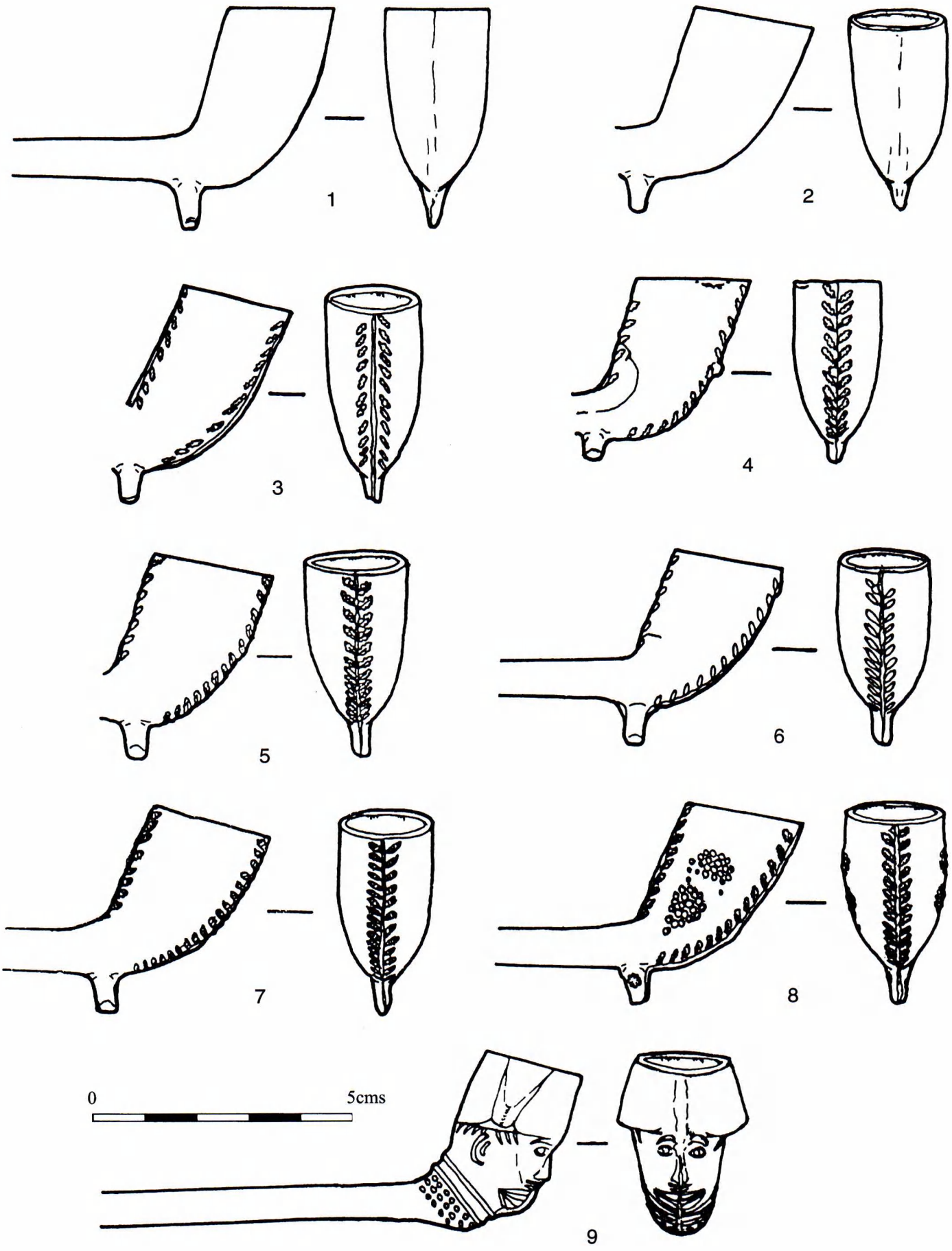

Fig.2 Clay pipes from Wellington Road (Victoria Road) Scale 1:1

Additionally, other pipes in the group such as the ones decorated with oak leaves (Types 3-5) and bunches of grapes (Type 8) were known to be popular in the 1850s and have been found at Temple Way (Price et al 1984), Clement Street (Beckey & Jackson 1986) and Lawrence Hill (Beckey, Baker & Jackson forthcoming).

One pipe from Group 2 had the initials 'EB' marked on one side of the bowl only, and recent research suggests that it was made by a member of the Bye pipemaking family. This property was used by the pipemaker James Maun but the reason why pipe waste from another manufacturer was allowed to be dumped there is not known unless there was an arrangement to use the material to level up the yard area. Additionally, two other 'EB' initialled pipes were found in a deposit located in the yard area of 33 Great Ann Street known as Group 1 (NGR ST 5975 7342). According to the 1851 Borough Survey of Bristol, 33 Great Ann Street was being used as a cooperage by Thomas Jones and no pipemaker is recorded there during the 1850s (04250/1). It should be noted that 33 Great Ann Street has been identified as No.16 in the unified street numbering system established by Price, R (forthcoming). The 'EB' pipes from both groups are illustrated full size below (Fig.3).

Previous research had shown that the Bye family were not large-scale pipe manufacturers, and until 1991 none of their pipes had been positively identified. Therefore, any new information about the types of pipes these manufacturers produced would help build-up the picture of how the smaller-scale pipemaking industry operated. There were two possible candidates from the Bye family who could have made these pipes, either Elizabeth (Betsy) or her sister Eliza who were the daughters of George and Sarah Bye.

ELIZABETH (BETSEY) BYE

Elizabeth was probably born in Great George Street, St Philips c.1831. On 6 June 1841 she was still living at Great George Street with her mother and father and two sisters Louisa and Mary(41C). On 30 March 1851 she was living at 12 Great George Street, St Philips with her mother and father as well as her sisters Sarah, Mary Ann and Hester. She was described as a pipemaker as was her sister Sarah and her father was a pipeburner (51C). Some time after this she married a James George and had two sons James and Thomas and later, in the will of George Bye dated 25 April 1879, it states that she had married David George of Gloucester, labourer, who was the brother of William Henry George and was living at Stroud Road, Gloucester (BRO Wills, Vol.52, p397). The will gave her a quarter share in the proceeds from the sale of her father's property in Eyers Lane, St Philips on the death of his wife, with equal amounts going to her sisters Sarah, Eliza and Mary Ann. Later in the will of her sister Eliza dated 5 December 1894, Elizabeth's sons James and Thomas from the marriage to James George were given legacies of £100 each, with her children by her second marriage to David George receiving £20 each (BRO Wills, Vol.67, p148).

ELIZA BYE

Sister Eliza was also probably born at Great George Street in c.1836-7. In 1851 she lived with the other members of her family at 12 Great George Street (51C). By 6 April 1861, her

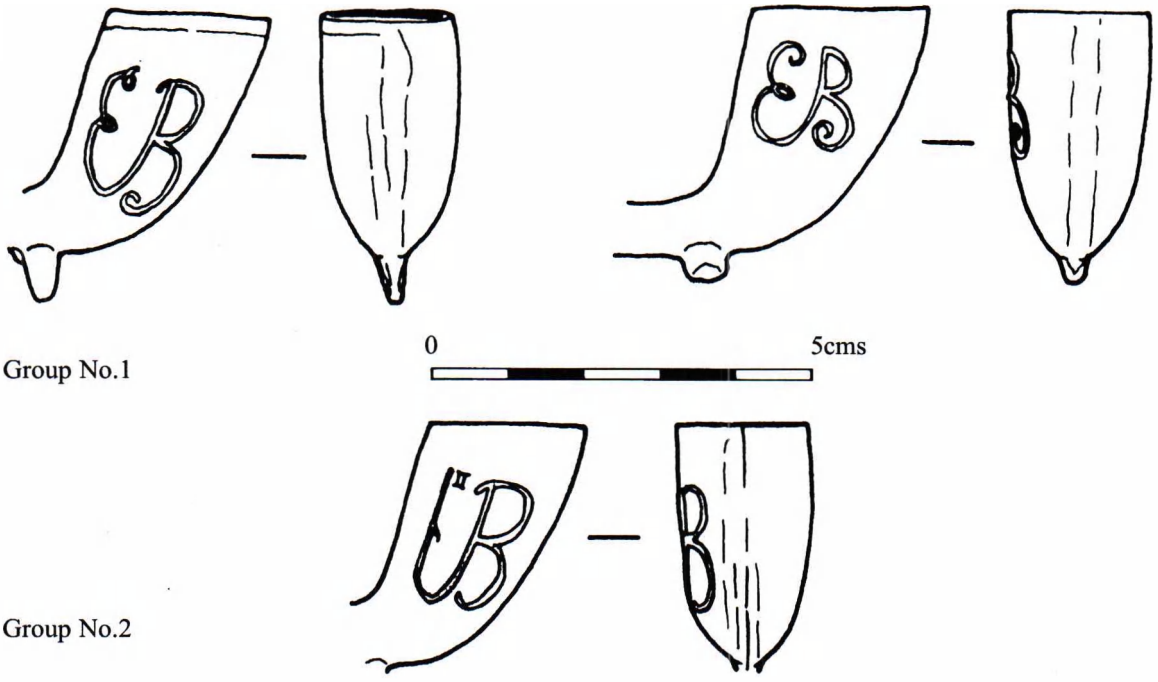

Fig.3 Examples of 'EB' initialled pipes from Great Ann Street. Scale 1:1

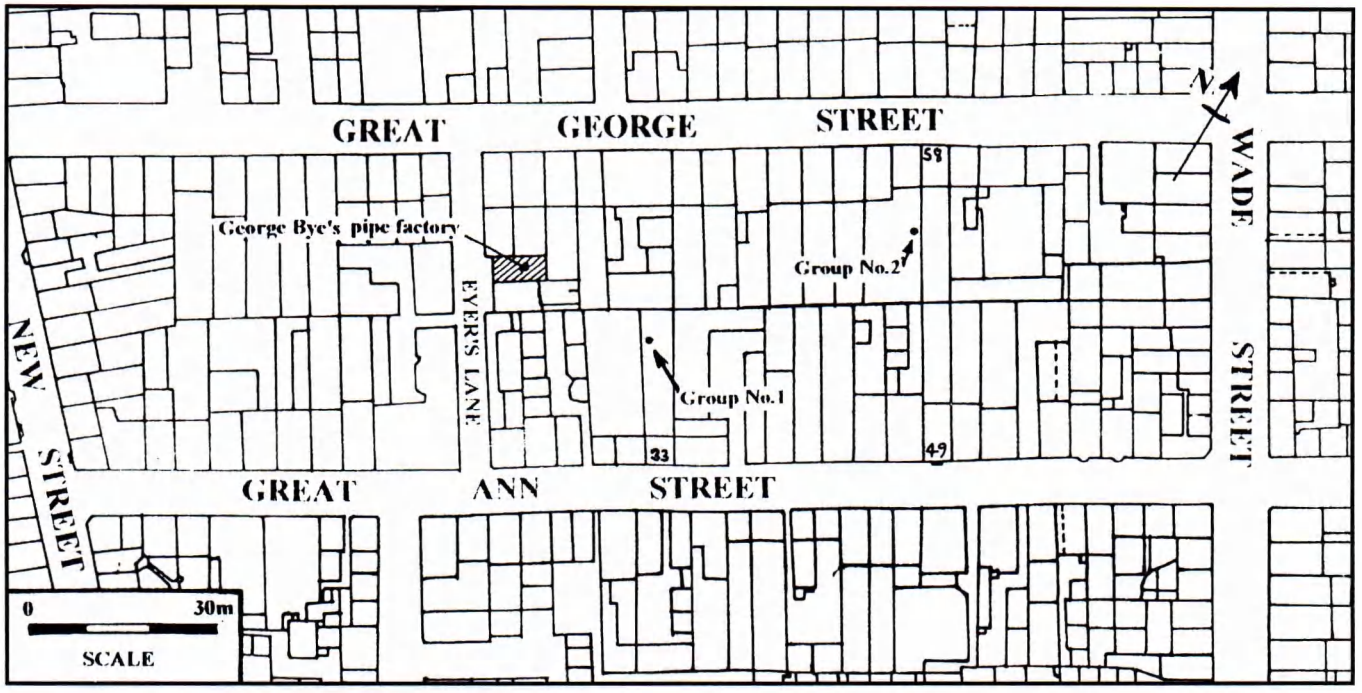

Fig.4 Location of George Bye's Pipe Factory in Ayers Lane from Ashmead's 1855 map

father was described as a pipemaker living with his wife and daughter Esther (Hester), both also pipemakers, at 5 Ayers (Eyers) Lane. In the census return alongside his occupation is a cramped note which seems to read '4 hands' i.e. that he ran his own business with 4 other employees (61C). It is presumed that Eliza would also have worked there as a pipemaker, perhaps with sister Elizabeth, and if she was not living at home at the time, would have lodged nearby. The Byes' house in Ayers Lane on its east side was renumbered No 4 and was in a lane immediately south of property which was eventually taken over by his future son-in-law William Henry George, and later became the westward extension of Thomas George IV's pipe factory (BRO 4627 (331a)),Fig.4 above.

On 29 February 1864, Eliza married William Henry George aged 21, an ironmoulder living in Old Market Street, St Philips at St Philip & Jacob parish church, and at the time of her marriage her address was given as Old Market Street (PPR). It may well be the case that William met Eliza because he had supplied iron pipe moulds to George Bye. William's own will of 1 March 1876 states that he was the son of Thomas and Hester George of Paul Street, Gloucester, and that his father was a labourer (BRO Wills Vol 59, 295). This information is supported by an indenture (BRO 4627 (331)) and there is evidence to suggest that Eliza and William were living in Old Market Street in what would have been No 14 (the Bacchus Public House) then occupied by Thomas George IV.

In George Bye's will, William Henry George of the Marquis of Granby Public House, Great Ann Street, St Philips, was appointed as Executor and Trustee. George died on 4 March 1881 at No 4 Eyers (Ayers) Lane and on 28 March his will was proved with an estate valued at under £20 (BRO Wills). William Henry George died on 14 October 1887 and was buried at Greenbank cemetery leaving Eliza to run the Marquis of Granby alone. On 29 December that year she took out a mortgage of £400 on her various properties but the reason is not known. Then on 4 February 1890 she was involved in the sale of 31 Great Ann Street as a trustee in the will of a William Godwin. She stayed at the Marquis until 1890 and then retired to 12 Cranbrook Road, Redland where she made her will on 5 December 1894. She died on 27 January 1895 and was buried at Greenbank cemetery (BRO Wills Vol 67, 148), (4627(503)d), (4627 (572)d), (Gbk).

The only other member of the Bye pipemaking family with EB initials was Esther (Hester) Bye the sister of Elizabeth and Eliza Bye who was born c1845-6 (51C, 61C). However, because the pipe waste was already sealed by the building of Victoria Road around 1855, she would only have been about 10 years old at the time and at that age would not have been skilled enough to make her own pipes.

CONCLUSION

From the research carried out so far by Roger Price, Reg Jackson and others, it appears that no other possible Bristol pipemakers with EB initials would have made the pipes if the date of 1854-5 for building Victoria Road is correct. Although some of the leaf-decorated pipes were of poor quality, the others decorated with military heads were better finished, suggesting that they were new around 1855. Therefore, on the available evidence it is reasonable to suggest that Elizabeth Bye or her sister Eliza may have made the pipes recovered from the waste deposit some time after March 1854 but before Victoria Road was completed in 1855. Elizabeth would have been the most likely

candidate because she was 23 years old, and thus had greater pipemaking experience compared to Eliza who would have been about 17 years. The only other possibility is that the initials 'EB' represent the name of a local public house, but as the 'EB' pipes were found in close proximity to George Bye's factory in Ayers Lane it would have to be considered unlikely.

ACKNOWLEDGEMENTS

The staff at Bristol Record Office, B Bond, Smeaton Road, Ashton, Bristol, Mike Bye of 13 Barron Place, Basingstoke RG24 9JS for supplying information on the Bye family, the staff at Gloucester Record Office, Clarence Row, Alvin Street, Gloucester, Madeline Leigh, Senior Modern Records Assistant, Bristol City Council Modern Records Department for her assistance with deed packages, Dr Roger Price for his advice, help with documentary research, and proof-reading and finally SWEB and their contractors for permission to excavate the site.

ABBREVIATIONS

These follow the Price Jackson standard system established by Jackson & Price (1974), Price, Jackson et al (1979) and Price, R Bristol Pipemaking Families (forthcoming).

BRO	Bristol Record Office, B Bond, Smeaton Road, Ashton, Bristol.
Gbk	Greenbank Cemetery Records held on microfiche at Bristol Record Office.
MD	Mathews's Bristol & Clifton Directories.
St M PR	St Matthias Parish Records held on microfiche at Bristol Record Office.
PPR	St Philip & Jacob Parish Records held on microfiche at Bristol Record Office.
SWEB	South Western Electricity Board.
51C	1851 Census records held on microfiche at Bristol Reference Library.
61C	1861 Census records held on microfiche at Bristol Reference Library.

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REVIEW OF ARCHAEOLOGY 1998-1999

Edited by Bruce Williams

Abbreviations

BaRAS	-	Bristol & Region Archaeological Services
BAT	-	Bath Archaeological Trust
BRSMG	-	Bristol City Museum and Art Gallery
CAT	-	Cotswold Archaeological Trust
CMAG	-	Bristol City Museum and Art Gallery
NSMS	-	North Somerset Museums Service

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

BATH AND NORTH-EAST SOMERSET

BATH

Weston Island, (BATRM 1998.36) ST 7283 6481. An evaluation was undertaken on land towards the eastern end of the island in January 1999. Three trenches were excavated through modern made-ground and landfill. This work revealed a number of walls of a mill complex, associated with a late-18th century brass mill, an early-19th century edge-tool factory, and a late-19th century logwood mill (Weston Logwood Mill).

Tim Longman, BaRAS

BATHEASTON

Batheaston Trunk Sewer, London Road, ST 770 668. Reconstruction and partial realignment of the trunk sewer at London Road, Batheaston, the line of the Romano-British road, revealed no significant archaeological deposits or structures. Somer 18th-century ceramics and other domestic rubbish had been dumped in the area.

J G P Erskine, AAU

DUNKERTON

Fourwinds, ST 719 600. A watching brief was carried out during topsoil stripping for a new gas pipeline on farmland adjacent to the Fosse Way. No significant archaeological deposits or features were encountered.

Franco Vartuca, CAT

ENGLISHCOMBE

Inglesbatch, ST 7064 6195. Observation of the area of excavation for the installation of a pressure relief valve recorded no significant archaeological deposits.

J G P Erskine, AAU

FARRINGTON GURNEY

Farrington Gurney Manor House, Main Street, ST 633 556. Sample excavation of the area of redevelopment and landscaping adjacent to this Listed Building located the following features. Comparatively recent reduction in levels and resurfacing of the driveway to the Manor House had removed most archaeological deposits apart from modern drains and part of a small stone-built culvert. Remnants of an original boundary wall on to Main Street were located some 1m behind the present wall. A stone-built well with a moulded pennant stone cap was located and preserved.

J G P Erskine, AAU

KEYNSHAM

Keynsham Cemetery, Durley Hill, ST 646 694. Observation of two engineering test pits by Keynsham Town Council, adjacent to the Mortuary Chapel of Keynsham Cemetery, which overlies Keynsham Roman Villa, recorded the following features. A well-preserved masonry wall and a sequence of flagged floor layers reflected demolished villa structures and were associated with a previously unknown north corridor and also deposits over the known south corridor of the substantial late villa. Evidence was also recorded of the construction and use of the Victorian chapel.

J G P Erskine, AAU

Keynsham Cemetery, Durley Hill, ST 646 692. Sample excavation of the area of a proposed extension to Keynsham Cemetery produced the following results. Two sections of a substantial wall foundation and a possible hexagonal room were located at the end of the Villa's south wing. A further wall could represent a boundary wall and other features included postholes for a timber structure and a deposit of soil, possibly originating from a garden for the 4th-century villa. The pottery recovered confirmed the 4th century date.

J G P Erskine, AAU

Keynsham Retail Site, Charlton Road, ST 652 687. The area of Charlton Road carpark and the Culvers Road council yard, together with the ack gardens and private carparks of 2-12 High Street, Keynsham were the subject of a desktop

study prior to submission of applications for redevelopment. Numbers 2-10 High Street were photographed internally and externally. It is concluded that the property boundaries have their origins in the planned town layout of the early medieval period, closely adjacent to an area of Saxon occupation. The present structures are 18th century or later, but may have earlier features within them.

J G P Erskine, AAU

Keynsham Retail Site Stage 2, Charlton Road, ST 653 687. Sample excavation of the area of a proposed superstore development produced the following results. Seventeen trenches in all were opened by machine and cleaned by hand. A deposit of large stones set in clay and associated with an assemblage of Romano-British pottery may represent a rough trackway or paved surface of the 3rd to 4th century AD. An occupation layer, structure-free but with medieval pottery of the 12th to 15th centuries was associated with masonry structures of a similar date. Boundary walls were located corresponding to property boundaries depicted on the 1840 Tithe map and two stone buildings with cobbled floors were located as shown on 19th-century sources. Immediately below the modern carpark and council yard surfacing was a thick deposit of cultivated soil, corresponding to gardens and orchards known to exist in the 18th and 19th centuries.

Observation of eight geotechnical pits recorded a relict fragmentary masonry wall adjacent to the Romano-British structures located in the Keynsham Retail Stage 1 evaluation, but no further dating evidence was obtained. A pit previously located in the sample excavation, but not then fully excavated, was shown to be 4m deep, and contained 19th- and 20th- century pottery and slag. As a policy of re-excavating previous trenches was followed, little fresh evidence was located and no new damage was done to the underlying archaeological deposits.

J G P Erskine, AAU

Keynsham Sewage Treatment Works, Broadmead, ST 684 666. Geophysical study and trial excavation of the area of a proposed development produced the following results. The site had been subdivided into four smaller fields before the 1940s and had been disturbed by the construction of a modern field drain, the GWR embankment in the 1840s and the construction of the sewage works in the 20th century. No structures or deposits of significant archaeological material were recovered.

J G P Erskine, AAU

Keynsham Community Centre, St John's Court, ST 653 688. Sample excavation of the area of a proposed Community Centre development in St John's Court, Keynsham, revealed shallow deposits of clays with associated late-medieval pottery, but no structures underlying 18th- and 19th-century garden and orchard soils. A small fragmentary masonry structure of unknown function can be dated to the early post-medieval. These results were similar to others recorded on adjacent sites, see Keynsham Retail Site, Stage 2.

J G P Erskine, AAU

NORTON MALREWARD

West Wansdyke, ST 609 655. Observation and recording of the installation of field drains across the West Wansdyke Scheduled Ancient Monument recorded the upper layers of the bank and the upper fill layer of the ditch to the north. The spread bank was at least 10m wide; no diagnostic finds were recovered.

J G P Erskine, AAU

NORTON-RADSTOCK

Welton Manor Farm, Welton, ST 673 550. A staged programme of archaeological research on this area of proposed mixed redevelopment resulted in the following conclusions. There is no evidence of Prehistoric or Romano-British activity on the study area. The medieval Manor of Welton, known from Domesday, is represented by earthworks containing buried masonry, a field boundary and a stone-built culvert in Bakers Close and also by medieval ditches and soil features to the south of the Listed Welton Manor Farm House of 1720. The field boundaries appear to date from an early 18th-century enclosure. Earthworks resulting from coal mines of the 18th century and also a leat to power the 18th-century Old Welton Colliery water wheels have been located on the site. The 1815 Somerset Coal Canal Tramway serving Welton Hill pit crosses the study area and survives in places, notably at the east and west ends. The central length appears to have been mainly ploughed out. Archaeological research on this site is continuing.

J G P Erskine, AAU

PENSFORD

Pensford Post Office, ST 3618 1638. Observation of the excavation of the foundations and other principal works for redevelopment located four wall foundations of several phases associated with adjacent buildings, notably the 18th-century Gratton House. No indications were found of medieval activity on the site.

J G P Erskine, AAU

STONEY LITTLETON

Long Barrow, ST 737 572. A programme of repair and conservation of this Guardianship monument also encompassed limited excavation and watching brief, alongside geophysical and auger surveys of the environs or the barrow. Two trenches were excavated through the body of the mound. The first lay to the rear of the entrance lintel and identified a modern repair trench thought to relate to restoration undertaken in 1938 by the Ministry of Public Buildings and Works. The second trench was excavated above the gallery and second pair of chambers and lay within a marked depression in the surface of the mound.

This appears to be a product of the investigations undertaken in 1816 by Rev. Skinner. The project is ongoing.

Alan Thomas and Dawn Enright, CAT

BRISTOL

AVONMOUTH

Cabot Park (CMAG.1998.79), ST 535 800. Following the evaluation works reported previously (Locock 1998; Locock et al. 1998), the Cabot Park proposal was granted planning permission in April 1999. Implementation of the development will take place over a 5-year period, preceded by a programme of archaeological evaluation, survey and excavation. Two areas have been investigated: Moorend Farm (ASMR 9242) and the Later Bronze Age stone scatter at Kites Corner.

The site at Kites Corner was fully exposed during the evaluation in 1998, in order to examine the site in plan (Locock et al. 1998, fig. 3), and was excavated in 1999. Two shallow central post-holes and a few stakeholes were the only evidence for structure. Burnt stone, charcoal and bone were present, with a few small flint flakes. The radiocarbon dates from the site have proved significantly earlier than the single date from 1998, suggesting a date in the range 1500-1000 cal BC. The charcoal (and burning of the stone) is evidence for extensive or repeated burning. Since the upper saltmarsh was devoid of trees, the fuel (which comprised shrub-type sticks rather than timber) must have been transported from further inland (the pollen from the site contains few tree species typical of alder carr, suggesting that the woodland lay some distance away). The pottery is simple and relatively undecorated (in contrast to the assemblages from bedrock settlement sites); it has parallels with Unit 4 at Brean Down (Somerset) and Combe Hay (Somerset), but is considered likely to have been made in the locality. Certainly, clay, stone for temper, and evidence for burning are all present on the Cabot Park sites. Despite the minimal structural evidence, the quantity and variety of materials present suggest something more than a temporary structure; rather, a seasonal camp might be proposed, used as base for foraging, cattle pasturing, and craft activities. Perhaps the most critical question remains the reason for the presence of the burnt stones. It is possible that the stone and fuel is being used as part a salt-making process, albeit using a technique which does not involve briquetage vessels. Extensive sampling was undertaken during the excavations at Kites Corner to check for enhanced salt levels in the soil, but none was found. The need for access to saltwater would, however, explain the location of the sites at the boundary between the dry areas and the saltmarsh, which otherwise seems unnecessarily close to the tidal waters. Fuller interim accounts have appeared elsewhere (Locock 1999a; 1999b).

The moated farmstead at Moorend Farm is similar to Rockingham Farm (Locock 1997); occupation, however, continued into the 20th century. Earlier evaluation was constrained by the standing buildings, but the site was excavated in 1999 in advance of the construction of industrial units for the *io* Group. The large platform was occupied in the 17th-18th century by two separate farming units; the southern unit, closer to the Salt Rhine, retained structural evidence running back to the 12th century. The platform was defined by a series of ditches which were repeatedly re-cut throughout the medieval period. The excavations produced a large assemblage of medieval pottery, and also two glass beads: a residual Early Iron Age example, of blue and white glass in an 'eye' pattern, similar to one reported from Whitton, Vale of Glamorgan (Price 1981, 160, no. 2; plate 18), and an 18th century 'trade bead', produced in the Bristol area for barter in Africa. Post-excavation work is in progress.

Survey of the surviving earthworks on the site recorded the ridge and furrow shown by the 1946 aerial photographs as covering the entire area. Subsequent ploughing had heavily degraded the features, so that in only six fields was detailed ground survey possible. It was found that the earthworks relate to the field boundaries as shown on the 1770s estate map, and are straight rather than a reversed 'S' shape. Although this is not conclusive dating, there is no reason to suggest a medieval origin.

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Martin Locock, GGAT

AVONMOUTH

Seabank Power Station, Severnside (BRSMG 1996.10), ST 5360 8265. An archaeological watching brief was carried out between late-April to late-August 1999 during the groundworks in Zone B associated with Phase 2 of the development of the CCGT station. No archaeological features or deposits were recorded other than a thin lens of organic clay. It is possible that it could be the same deposits one observed during the 1997 watching brief, which was radiocarbon dated to 2290-2030 cal. BC. Certainly the levels at which it was recorded are very similar, at heights between 4.53 metres aOD and 4.64

metres aOD in 1997 and at 4.80 metres aOD in 1999. It had been observed, elsewhere, that the deposit was closer to the modern ground surface the further one retreated from the coast. The OD levels certainly appear to confirm this.

Tim Longman, BaRAS

BEDMINSTER

Wapping Wharf (BRSMG 1999.008) ST 5800 7226. An assessment was conducted to examine the possible impact of a proposed residential development on identified archaeological remains, listed buildings and other historic structures in the area. The study area had largely been developed only since the late-18th century and indeed much of the harbourside site was fields until the late-19th century. The archaeological sites which were identified are associated with shipbuilding, clay pits and other industrial activity. By the 1870's the Bristol Harbour Railway was built and improved quayside facilities had been constructed.

Tim Longman, BaRAS

Site R1, Wapping Wharf, ST 5805 7225. A watching brief was undertaken during development at Wapping Wharf. This followed on from an environmental impact assessment which had identified four sites of potential archaeological interest located partially within the boundaries of the development. The sites identified were a ropewalk (SMR 5817), brickyard (SMR 4831), shipyard and a 19th-century warehouse or transit shed. These sites did not survive however, and only the remains of a 19th-century culvert and possible inspection chamber associated with the railway were recorded.

Jayne Pilkington, BaRAS

8 Sheene Road, ST 681 991. Observation and recording of the area of a commercial development recovered only very modern rubbish and made ground. No significant archaeological deposits had survived in this area.

J G P Erskine, AAU

Site off Sheene Road, ST 583 711. Evaluation of the area of a proposed commercial development located a surviving soil horizon, containing 11th-13th century pottery associated with tenements laid out along West Street, Bedminster in the medieval period. A higher soil horizon is associated with 19th-century gardens with two adjacent masonry walls, probably belonging to the houses. The interpretation is that the site was occupied before the 13th century, possibly associated with the known adjacent Minster, and then the site was abandoned for residential purposes until the late-18th to 19th centuries.

J G P Erskine, AAU

BISHOPSWORTH

Chestnut Court, Vicarage Road, ST 57105 68990. A desktop study was undertaken on this site at the corner of Vicarage Road, Church Road and Kings Head Lane. Chestnut Court was constructed in the early or middle 18th century. It is not clear if there were earlier buildings on the site. There are two rear extensions that may be later in date than the main range. Externally the buildings are much as constructed, but there has apparently been internal alteration in more recent times, associated with use of Chestnut Court as a social club. To the west of the house along Vicarage Road there is now a small car park, and this was formerly the site of two outbuildings, part of one of which still stands.

John Bryant, BaRAS

Inns Court Green, Knowle West, (CMAG 1997.001) ST 5877 6022. Following the excavation carried out in 1997 (see BAA 14), a watching brief was undertaken during the various stages of redevelopment; the construction of the new community centre, church, shops and roads. In 1999 the old community centre and church were demolished and the area cleared ready for landscaping as a garden. This provided the opportunity for the west range of the medieval Inns Court manor house to be uncovered ad recorded although, as preservation of the remains in-situ below the garden was the preferred option, no excavation was required.

The service trenches and foundations of the old community centre had caused much damage to the archaeology. Nevertheless it was possible to recover a plan of the west range of the manor house and part of the courtyard between the west and north ranges.

The west range was 17m long by 6.5m wide. The whole length of the west wall had been removed by a modern foundation. The range was of two phases. Most f the wall foundations were clay bonded and probably of 14th-century date. The foundations around the south-east corner of the range were bonded with a similar mortar to that used in the north range suggesting a rebuild in the early 15th century. Only one internal division survived comprising a line of flat stones which probably formed the base for a timber partition. Other internal walls had probably been removed by modern foundations. Fragments of pitched stone and mortar floors inside the range were uncovered but could not be dated without excavation. Part, if not all, of the west range survived until it was incorporated in the church built in 1949.

The relationship between the north and west ranges had been destroyed by modern foundations and service trenches. However, an area of mortared stonework probably represented part of the base of the small turret shown close to the junction of the ranges on a early 19th-century watercolour of the manor house.

In the 19th century the west range had been extended 4m to the south. The extension had been floored with large Lias slabs and was probably open-fronted to the east with one low step up to it from the courtyard.

Two hundred square metres of 19th-century pitched stone courtyard were exposed between the north and west ranges. Within that were the remains of a stone-lined well. A small area of possible medieval courtyard surface was noted adjoining the west range.

In the absence of an excavation no further Romano-British occupation was uncovered although earlier structures and layers could be seen in section below the medieval building.

Reg Jackson, BaRAS

South Bristol Business Park, Hengrove Way, ST 592 693. Observation and recording of the area of an industrial development recorded a large amount of redeposited Romano-British pottery in topsoil recently removed from other Romano-British sites in the vicinity. No other significant archaeological deposits or structures were recorded.

J G P Erskine, AAU

Elmhayes, Highridge, ST 567 689. Observation and recording of the area of a residential development located only demolished foundations of the 19th-century Elmhayes Elderly Persons Home which had continued in use until the late-20th century.

J G P Erskine, AAU

BRISLINGTON

Imperial Sports Ground, Knowle, ST 6110 6995. A desktop study of the Imperial Sports Ground found that prior to its development as a sports ground the site had been used for agriculture, although no reference was found for the site earlier than 1845. The location of the manor house of the la Warrs in the West Town, traditionally held to be Rookery Farm to the southeast of the site, points to a continued use of the land since at least the late-12th century.

Rod Burchill, BaRAS

Brooklea Estate, Wick Road, ST 621 719. Documentary research of the area of a proposed educational development recorded that the now demolished Victorian villa on the site had been used as accommodation for the United States First Army Group in World War II. The Group was headed by General Omar C Bradley based at Clifton College for the Overlord operation. The majority of the troops were based at Whitby Road bakery, Brislington.

J G P Erskine, AAU

The Beeches, ST 631 704. Evaluation of the area of a recreational development following a desktop study and geophysical survey which had located several anomalies in the grounds of the early 19th-century pioneer Lunatic Asylum constructed by Dr Edward Long Fox, proved that the majority of the features were of geological origin. The man-made features were paths and roadways of very modern origin. The Beeches, now a conference centre, was once a subsidiary residential villa for Brislington House.

J G P Erskine, AAU

CLIFTON

Hartwell's Garage, Merchants Road, ST 5716 7304. A desktop study was undertaken on this site which straddles Merchants Road. The site was initially developed only on its western end, but before the mid-19th century the central part had also been built over. Creation of a new road (Merchants Road) through the site in the late 1860s enabled development on both sides to take place. A public hall was erected on the north side and shops on the south side, all eventually part of a large department store. After the store went into liquidation in 1911 the southern half became a garage and car showroom, in which use it has continued almost to this day. The northern half was devastated in the Blitz, and was later redeveloped as an extension to the motor business.

John Bryant, BaRAS

Waldorf School and former Pro-Cathedral, Park Place, ST 5775 7321. A desktop study was undertaken at this site that extends down to the top of Berkeley Place. The site was rural until the early 19th century, although some parts may have been quarried. Purchase of the land was shortly followed by commencement of the construction of a large church but this was thrown into jeopardy by landslip problems. However the building was completed - to a different design - in 1848. This formally became the Pro-Cathedral in 1850. There were subsequent additions, although the projected massive tower was never built. A convent was built immediately downslope of the church, and this later became a school. Beyond the church a house was built for the bishop. There has been a complicated history of the buildings on the site, particularly those of the convent/school. Latterly the church functions were replaced by the new Clifton Cathedral. The school buildings have been utilised by the Bristol Steiner Waldorf School in recent years.

John Bryant, BaRAS

The Former Limekiln Dock, Hotwells Road, (CMAG 1998.012) ST 5783 7253. An evaluation and subsequent excavation was carried out on the site of the former Limekiln Dock in advance of the development of residential flats. This exposed the western edge of the dock and the associated dockside buildings. Some evidence for the exploitation of a natural pill as a mud-dock prior to the construction of the stone built dry dock was revealed in a small hand dug section. The ground level was subsequently raised toward the end of the 17th century - possibly at the same time as the building of the dock, which was completed by 1710. Buildings revealed to the west of the dock were identified as an Engine House and 'Grist Mill' from a combination of documentary and cartographic sources. The dock was closed for a time after the creation of the Floating Harbour in 1809, presumably because the dock could no longer be effectively drained at low tide, and the owners Hillhouse and Co. received compensation for their loss. It is possible that the 'Grist Mill' originated at this time as a premises for processing agricultural produce, the term 'Grist' suggesting that the Mill was grinding corn. The dock was eventually re-opened, probably thanks to the

construction of the Engine House to the south of the Mill. This housed a steam engine and pumps, according to the documentary evidence, which would have been used to pump the water from the dock once a vessel had been floated in.

The dock itself was refurbished with large pennant coping stones and extended back towards Hotwells Road between the 1850's and 1880's. The archaeological evidence also revealed the expansion of the adjacent premises to the west of the Mill and Engine House, forming part of Jefferies' New Quay Iron Works. A new vertical boiler was inserted in the Engine House for powering a steam kiln. This would have been used to bend timbers into shape for use in boat building and repair. The cartographic and archaeological evidence combined to show that the Steam Kiln lay immediately outside the Engine House, with the steam almost certainly conveyed by pipes from the boiler inside. The shaping of timbers was practised on the dockside between the Engine House and dry dock. Very late in the 19th century a new brick structure was set into the dockside, again probably related to the pumping of water from the dry dock. By 1906 the dock had been filled and the dockside buildings levelled for the construction of the new Harbour Railway.

Simon Cox, BaRAS

HENBURY

Kings Weston Relay Station, ST 547 775. Evaluation of the area of a proposed industrial development within a Grade II* Registered Historic Landscape located no significant archaeological deposits above shallow, weathered bedrock.

J G P Erskine, AAU

HORFIELD

Former Playing Fields, Monks Park School, (CMAG 1999.43). ST 59590 78245 & ST 59370 78025. A programme of archaeological excavation and evaluation was undertaken at two separate locations within an area of proposed residential development located adjacent to Monks Park School. An open area excavation was carried out in response to previous archaeological fieldwork, which had identified the remains of a possible stone-founded building of Romano-British date at the north-eastern end of the playing fields. The evaluation exercise sampled another part of the development footprint, located adjacent to Luckington Road, which had not been subject to previous archaeological investigation. The stonework thought to be the remains of a Romano-British building was shown to be geological rather than archaeological in origin, being a rectilinear arrangement of jointed, outcropped limestone assuming the shape of a right-angled wall return. This interpretation, confirmed by a geologist from Bristol City Museum, was supported by the lack of other Romano-British features or finds within the excavation area. The only features of archaeological significance recorded at this location were parallel lines of postholes and goalpost-sockets associated with the former use of the site as a school playing field. The trial excavation trenches adjacent to Luckington Road contained a series of shallow linear earthworks filled with modern debris. These were interpreted as infilled drainage ditches or former watercourses.

Adrian Parry, BaRAS

HOTWELLS

265 Hotwell Road, ST 5708 7254. Excavations for a rear extension by Mr N Finch provided evidence of 19th-century outbuildings, since demolished, and a contemporary masonry well with pump fittings.

J G P Erskine, AAU

KINGSDOWN

Somerset House, 10 Kingsdown Parade, ST 58620 73735. A desktop study of Somerset House showed the site to have been formerly part of a field known as Upper Montagues. Not withstanding the events associated with the Civil War in the 17th century, the fields known as Upper Montagues are unlikely to have suffered disturbance prior to their development as formal gardens and for housing during the 18th century. Documentary sources do not record when No.10 Kingsdown Parade was built; however, the 1773 plan of Bristol shows the site to be occupied by a building with formal gardens to the rear. Before being destroyed by enemy action, 10 Kingsdown Parade was owned by the Bristol School Board and had served as an Air Raid Wardens post during World War II. After being bombed the site lay void until the construction of the Somerset House Day Centre in 1965. The building fronting Kingsdown Parade was constructed at the former basement level and it is possible that further terracing of the site took place at the same time.

Rod Burchill, BaRAS

SEA MILLS

79 Sea Mills Lane, ST 5515 7595. Excavation of the area of a proposed residential development within the Romano-British town of Abonae located a small quarry pit, backfilled with a secondary deposit of Romano-British and imported pottery dating from the 1st to 4th century AD. This area was closely adjacent to the Roman buildings found under the site of Abon House in 1965-8.

J G P Erskine, AAU

STAPLETON

Colston's Collegiate School, Bell Hill, ST 616 759. Archaeological observation and recording of groundworks for the construction of a new Music Suite indicated that previous building and landscaping work had destroyed any underlying archaeological deposits.

J G P Erskine, AAU

ST AUGUSTINE

College Square, ST 58265 72630. An archaeological and historical study was carried out by John Bryant and Jane Root. The area had probably first been developed as the

outer court to Saint Augustine's Abbey, which was founded in 1140. In this court were most of the abbey's ancillary and service buildings, such as the bakehouse, brewhouse, granaries, laundry, stables and even a tannery. The abbey was dissolved in 1539 and the site chosen for one of the new cathedrals in 1542. Accommodation was required for the bishop, his officers and staff, and this was found by converting premises in both the claustral ranges and in the outer court. There were subsequent rebuildings in the 17th and 18th centuries, at which time the area was known as Lower College Green. A garden was created in the centre in the early nineteenth century and the name changed to College Square, but the area was already going downhill. In the late 19th century and early 20th century many of the historic buildings were removed, while the sense of an enclosed area that had always been present was destroyed by the cutting through of Anchor Road.

John Bryant, BaRAS

Former Lex Peugeot garage, St Georges Road, ST 35804 17260. Archaeological monitoring of groundworks associated with the redevelopment of the former Lex Peugeot site recorded made ground comprising brick, slate, mortar, ash and gravelly clays to a depth of c..2.5m. There were no archaeological features or finds recorded.

Rod Burchill, BaRAS

ST GEORGE

Aldi Store Site, Church Road, (CMAG 1999.27) ST 61725 73600. Archaeological monitoring of the groundwork phase of this development recorded structural remains of 19th- and 20th-century industrial buildings and the cellar of the demolished Horse & Jockey Public House. In this respect, the archaeological evidence, for the most part, confirmed map evidence for the history of the site. There was no evidence for any archaeological activity predating the modern period.

Adrian Parry, BaRAS

Thicket Avenue, Fishponds, ST 641 756. Observation of groundworks for residential construction located no archaeological deposits earlier than the 19th century.

J G P Erskine, AAU

19 Air Balloon Road, ST 631 734. Observation and recording of the area of a residential development revealed no archaeological deposits or artefacts surviving, apart from two modern stone walls.

J G P Erskine, AAU

ST JAMES

Fiennes Court/Sterling House, off Union Street/Fairfax Street, ST 5900 7320. Evaluation in advance of proposed redevelopment examined part of the low-lying medieval and later suburb of Broadmead, alongside the now culverted line of the River Frome. Beneath Fiennes Court a wide wall foundation dating from the 13th century was set into the alluvial clays of the Fome floodplain. Adjacent floor surfaces and other occupation deposits yielded mid 13th to late 14th century pottery, consistant with the known establishment of Broadmead during the late 12th or early 13th century. The wall alignment broadly correlates with those of buildings shown on Millerd's map of 1673. A series of cobbled and metalled surfaces of medieval and later date possibly represent the remains of the street known as Little St. James Back. Structural remains of 18th and 19th century properties on the western side of Union Street and of the Fry's No.1 and No.6 factories were also recorded, the latter associated with cellars in excess of 3m deep. Evaluation within Sterling House revealed no archaeological deposits which pre-dated its construction in the 1960's.

Alistair Barber, CAT

Upper Maudlin Street, (CMAG 1999.007) ST 5869 7341. An excavation was carried out to the west of the sites excavated in 1973 and 1976 where parts of a Romano-British settlement had been found. An area of 600 square metres was stripped of demolition rubble and overburden to a depth of up to 4m below the level of Upper Maudlin Street.

The earliest finds, occurring as residual material in medieval contexts, were worked flints of the Neolithic and Early Bronze Age.

The earlier excavations had uncovered evidence for a Romano-British settlement occupied from the 2nd to the 5th centuries, including stone foundations, ditches, pits and an iron-working furnace. Romano-British pottery and coins were found in 1999, but they occurred as residual objects in medieval cultivation soils. Although the settlement apparently did not extend as far as the 1999 site, large quantities of iron slag were found littering the surface of the bedrock. A specialist report on the slag is awaited but the indications are that iron was being smelted during the 3rd and 4th centuries and that a local source of ore was being used.

A few sherds of early 11th-century pottery were found as residual items in medieval cultivation soils, implying pre-Conquest activity in the area. A late 12th-/early 13th-century boundary ditch and wall were found in 1973 but features of that date were absent from the 1999 excavation.

From the mid-13th century until 1538 the site lay within the precinct of the Franciscan friary whose church and monastic buildings were located on the lower ground beside the River Frome. It had been assumed that the upper portion of the precinct, partly covered by the excavation, were used by the friars as orchards, vegetable plots or herb gardens, and this was confirmed by the occurrence of cultivation soils containing a mixture of Romano-British and medieval finds.

After the Dissolution of the friary in 1538 the area continued to be used for cultivation. From the late 16th to the middle of the 17th centuries a number of quarry pits were dug, the backfill of some of the pits containing large

quantities of domestic rubbish.

Documentary research has shown that the sites of the excavations lay entirely within that part of the former friary precinct granted by the City of Bristol to Richard Cole in 1585. The land was used by the wealthy citizens of Bristol for the construction of lodges or garden houses that served as retreats and as venues in which to impress or entertain. The walled gardens adjoining the houses were sources of pleasure and fresh produce.

The garden houses fronting Upper Maudlin Street lay outside the area of the excavation. However, a late-16th century wall at least 9.4m long served as a north/south boundary between two of these gardens. The wall was depicted on a drawing of 1753 as forming the eastern boundary to a garden then owned by James Stewart, a schoolmaster, whose manuscript history of Bristol is in the Bodleian Library.

To the east of the boundary wall the excavation revealed parts of a large formal garden. Rubbish had first been dumped on the southern portion of the hillside in an attempt to level the slope to some degree. A low retaining or terrace wall was then built across the garden from east to west and earth piled against the wall on its northern, uphill, side to level that area. The garden was then laid out in a formal rectilinear design with a main path running east/west immediately to the south of the retaining wall, with possibly four paths crossing it at right angles. The paths were surfaced with crushed yellow quartz and were bordered with Pennant slabs set on edge to retain the soil in the adjoining flower or vegetable beds. Coin and clay tobacco pipe evidence indicates that the garden was laid out between about 1670 and 1673. The paths were occasionally resurfaced and the garden design modified when gaps for the north/south paths through the retaining wall were blocked and masonry plinths, perhaps the bases for statuary or garden urns, were built on the east/west path.

The garden went out of use in the early-18th century, probably just before 1735 when part of the land was sold for the development of three houses on the Upper Maudlin Street frontage. Postholes for a fence dividing the garden north/south were found. The area to the west of the fence was used for cultivation and the disposal of rubbish in pits, including one stone-lined cess it. To the east of the fence line earth and rubbish were tipped down the hillside covering the earlier garden to a depth of over 0.5m.

The garden to the west of the 16th-century boundary wall, formerly owned by James Stewart, was developed shortly after 1759 when a row of four terraced houses known as Pembroke Court were built fronting on to Johnny Ball Lane. The foundations and basement rooms of three of the houses, demolished in 1973, were uncovered. Buildings were also constructed in the 18th century on the southern edge of the site although these had been almost completely removed by the modern car park access road.

In the middle of the 19th century a Welsh Baptist Chapel, warehouses and industrial buildings were erected over the site to the east of Pembroke Court.

Reg Jackson, BaRAS

10 Marlborough Street, ST 58819 73072. A desktop study of the site of the Manulife Building showed that it is located in an area of significant archaeological potential, lying as it does within the boundaries of the former estate of St James' Priory and the only known Romano-British occupation site in central Bristol. In the absence of any previous archaeological investigation of the site, however, it is unclear how much damage has been caused to any surviving archaeological remains by 17th/18th-century development and the construction of the present building.

Adrian Parry, BaRAS

ST MARY REDCLIFFE

Redcliff Backs, (CMAG 1999.31) ST 5904 7248. An excavation and subsequent watching brief on an area adjacent to Redcliff Backs, immediately to the west of the 1980 Redcliff Street excavations directed by Bruce Williams (BRSMG 107/1980), was carried out prior to the development of residential properties. There was no direct stratigraphic link between the two sites, although further evidence for the 14th-century weaving and cloth finishing industry was revealed to the rear of the tenements excavated in 1980. This was in the form of waste deposits, such as madder, recovered from the backfill of a north-south cut feature. This may have related to a re-cut of the river bank in order to stabilize the river frontage, protecting adjacent properties from flooding at high tide, during land reclamation in the mid 14th century. Following the infilling of the cut a number of tenements were constructed in the mid-14th century, extending the properties fronting Redcliff Street to within five metres of the late 20th- century line of Redcliff Backs. An alignment of north-south running walls formed the western boundary of the extended tenements, and two culverts or garderobes issuing through these walls to the west suggested that this lay close to the river frontage. Tip deposits to the west of the boundary walls matched those found to the east, and together with their relatively insubstantial foundations suggested that there was perhaps a lane or quay separating the backs of the tenements from the new mid-14th century river front. There was no indication of a river front wall during the excavation or watching brief, although such a structure may well lie preserved beneath the road at Redcliff Backs. The alignment of the lane known as Redcliff Backs may therefore stem from the position of the quayside in this period.

Simon Cox, BaRAS

1 & 2 Prewett Street, ST 5925 7225. This site was investigated by a desktop study. The site was garden and orchard until the early 18th century, after which part was developed as a malt house, the remainder as housing with yards and gardens. After about 150 years the malt house was converted into a Baptist chapel. This in turn became a garage before returning to industrial use. The sites of the houses are now occupied by a yard and an extension to the industrial premises.

John Bryant, BaRAS

60 Redcliff Street, ST 59110 72531. Photographs of a medieval and later wall several storeys in height were annotated. The wall includes the remains of two arches at lower level, but both have lost their upper voussoirs.

John Bryant, BaRAS

98-103 Redcliff Street,(CMAG.1999.0034) ST 59062 72566. An archaeological evaluation of Nos.98-103 Redcliff Street revealed evidence of occupation dating from the 12th century to the present. This evidence included 12th-century upright timbers, probably part of a fence line, that were revealed on a similar alignment to the timbers of the 12th-century river revetment recorded at the adjacent archaeological site of Canynges House, excavated in 1983. Overlying these timbers were cobbled surfaces, make-up deposits and walls of a 14th-century building, part of which survives as a standing wall within the present building.

Artefacts relating to 13th/14th-century culture such as parts of leather shoes, wooden implements and pottery were recovered from material that had been deposited onto the riverbank from the rear of Redcliff Street properties in the late 13th and early 14th centuries. The location and depth of the deposits, artefacts and the contemporary occupation surfaces east of them suggests that the conjectured line of the 13th-century riverfront is approximately correct.

Evidence from cartographic sources and the trench in the yard adjacent to the existing building has suggested the presence of a medieval slipway beneath the vaulted roof of a cellar that was within No.98 Redcliff Street. A blocked entranceway within the medieval footings of the north wall of No.98 Redcliff Street, the passage between the Redcliff Backs warehouses opposite the rear of this property and evidence from other sites in the vicinity suggest the existence of a slipway in this location.

Peter Insole, BaRAS

60 Redcliff Street, ST 5915 7255. An archaeological watching brief was carried out during the excavation of 10 geotechnical trial pits and one borehole. All the pits had been dug against 19th-century walls and no archaeological features or deposits were encountered.

Jayne Pilkington, BaRAS

ST MARY REDCLIFFE and ST THOMAS

Redcliff Street and Saint Thomas Street, ST 5913 7259. An extensive area was covered in this desktop study. Overall, the study area contained the sites of almost one hundred medieval tenement plots. To the west of Redcliff Street these extended originally to the River Avon in a pattern familiar from archaeological excavations in the area. Those plots on the east side of the street and on the west side of Saint Thomas Street both ran back to the Law Ditch, a substantial medieval drainage course and land division that bisected the space between the two thoroughfares. Redcliff Street was a major route leading out of the town. Redcliffe was much involved with trade and cloth production in the medieval period, and the site of a number of industries both then and in the post-medieval period. Metal-working, distilling, sugar-making and malting and brewing were some of the trades followed in the district. Groups of tenement dwellings were erected off some of the streets in the 18th and 19th centuries. A few pre-war buildings and earlier walls are still standing, particularly to the west of Redcliff Street and in the vicinity of Thomas Lane and Three Queens Lane.

John Bryant, BaRAS

60 Redcliff Street and 30 to 38 St Thomas Street, (CMAG 1998.0078) ST 5915 7255. In 1998 five evaluation trenches were excavated at various locations within the properties between St Thomas Street and the course of the Lawditch. The natural alluvium was probably located on the St Thomas Street frontage at 7.1m aOD.

All the trenches contained important archaeological structures, features and deposits. From the medieval period - mainly the late 13th/14th centuries - there was evidence for a building running back from St Thomas Street, a pitched stone surface with a ditch along its southern edge which probably formed a medieval property boundary and, towards the rear of the St Thomas Street plots, a possible stone-lined well associated with an area of stone paving.

Demolition rubble, almost certainly from medieval buildings on or close to the site, accumulated during the 15th and 16th centuries. After that the whole area was used as gardens and orchards until the construction of a glasshouse in the early 18th century. A section of the wall of the 18th-century glasscone was located associated with a quantity of glass cullet.

Buildings were then erected over the site in the 18th, 19th and 20th centuries culminating with the existing properties.

Reg Jackson, BaRAS

ST MICHAEL

The Sugar House, Lewins Mead, ST 5865 7326. Monitoring of a project to convert the former Sugar House to a hotel found that the majority of the buildings were constructed in the mid to late 18th-century; though a number of walls had been extensively rebuilt or repaired using stone and brick during the 19th and early-20th century.

The upper courses of wall found during the excavation of a service trench were probably late-16th or early-17th century in date.

Rod Burchill, BaRAS

ST NICHOLAS

The Llandoger Trow, King Street and Welsh Back, ST 5889 7270. A desktop study was carried out for the whole block except the public house itself. The site was formerly part of the Marsh outside of the medieval town wall, but was laid out for building plots in 1663. There was a condition that all houses had to be erected by 1666. Five houses were built along King Street, two of them within the study area. All

were of a uniform three storeys plus attic, with timber-framed fronts, and all were cellared. There was a slightly earlier building facing Welsh Back. Another gabled house was built on Little King Street. The house on Little King Street, along with other early buildings, was removed in the 1930s. Although the King Street houses survived, the two easternmost examples, Nos.1 & 2, were destroyed by enemy action in 1940 or 1941, their sites subsequently occupied by large sheds. An archaeological evaluation was carried out over much of the present site in 1990 and found evidence of late medieval and early post-medieval land reclamation, but no building development until the 1660s.

John Bryant, BaRAS

ST NICHOLAS AND ST STEPHEN

Queen Square, ST 588 725. Archaeological recording was carried out on the site of landscaping refurbishments and tree planting in Queen Square. Finds have been limited to 19th- and 20th-century items. Archaeological observation work is continuing.

J G P Erskine, AAU

ST PAUL

Former scrapyard in Wilson Street, ST 5959 7370. This site on the south side of the street was the subject of a desktop study. The area had been part of the estates of St. James's Priory and remained in agricultural use, and later horticultural use, until the end of the eighteenth century. Most was then built up, but a rectangular plot was brought into use as a burial ground. Half of this plot now lies beneath the present site. After fifty years of use the burial ground was closed in 1854. It has never been cleared of burials. They are an important historical and archaeological resource for the first half of the 19th century. The houses over the majority of the site were cleared after the Second World War, and the site has more recently been in use as a scrap yard.

John Bryant, BaRAS

1-13 St. Paul Street, ST 59515 73660. A desktop study was carried out on a group of derelict buildings known as 1-13 St.Paul Street. The buildings are listed Grade II as a group. The study found that the site was unlikely to have suffered disturbance prior to its development for housing during the late 18th- or early 19th-century. During the 1890's the site became increasingly industrialised with numerous workshops and other commercial buildings erected in the former rear gardens. Cellars were noted beneath each of the seven houses and an extensive network of drains was built beneath the garden buildings. This was thought likely to have had a major impact on any archaeological features predating the construction of the houses.

Rod Burchill, BaRAS

Wilson Street, (CMAG 1999.63) ST 5959 7370. An archaeological field evaluation was carried out within the footprint of a former scrapyard prior to a proposed residential re-development scheme. Seven trial excavation trenches were opened on the site, with variable results. Two of the trenches contained the cellared remains of 18th/19th-century properties formerly lining the southern side of Wilson Street. A third trench recorded the rear wall and garden of a contemporary slum dwelling located to the south of the Wilson Street frontage, and the remaining trenches sampled part of a 19th-century infant burial ground located in the south-eastern corner of the site. The evaluation demonstrated that burials were still preserved in-situ, either as isolated interments or intercutting graves. A cobbled alley and garden boundary walls appeared to mark the eastern and northern limits of the cemetery respectively, but its western edge was not clearly established.

Adrian Parry, BaRAS

ST PAUL WITHOUT

Ashley Court, Ashley Road, ST 59735 74297. A desktop study was carried out on this site. The land was part of the estates of St. James' Priory, Bristol. After the surrender they passed to the Winter family, later the Hookes. It appears that this land was in arable use, but by the early 18th century it was in use as market garden or orchard. Horticultural use continued until development in the 1830s, when a villa was erected. This was demolished in the mid-20th century, since when the site has lain mostly empty.

John Bryant, BaRAS

ST PHILIP AND ST JACOB

Steevens House, Old Market Street, ST 5969 7319. A desktop study of land occupied by Steevens Almshouse, showed that the site was certainly developed by 1568 and possibly from a much earlier date. The almshouse first built in 1686, although altered and extended, survived until being destroyed by enemy action in 1940. The site was subsequently cleared and a new almshouse built in 1958.

Rod Burchill, BaRAS

The Former Bristol Hardware Building, Old Bread Street, ST 59687 72859. A desktop study was carried out on the site of the former Soap Works. The study area contains a number of unoccupied buildings of varying dates, one of which was Grade II listed, formerly belonging to the Soap Works established in the 19th century. Cartographic evidence indicated the site was pasture land until the construction of a brickyard in the mid-18th century, but by 1773 the brickyard had been demolished and the site was returned to pasture/horticultural use. Between c1828 and 1870 residential buildings and gardens occupied the site and from c1870 to 1954 the study area formed the southern half of what was the Soap Works.

Jayne Pilkington, BaRAS

ST STEPHEN

The Arnolfini Gallery and Land Adjoining, Narrow Quay, ST 358589 172429. A desktop study of the site of the Bush Warehouse (now the Arnolfini) and surrounding quayside

has shown that medieval harbour features and structures are likely to lie at considerable depths, in excess of 2.5m, beneath the present surface. The same will be true of later medieval features such as the position of the gibbet marked on Millerd's 17th century map and the 'Building Yards' on the early 18th century map. There is the potential for later structures to survive closer to the surface, such as the first warehouses on the site shown on Rocque's plan of 1742 and on a painting by Nicholas Pocock, dated 1786. It is also possible that evidence for these structures were revealed in the excavation within the building of 1973. The Bush Warehouse replaced these initial buildings in the 1830's and was originally used as a tea warehouse until it was converted for use as a granary at the end of the 19th century. After World War I the building was used to store tobacco in bond, but by the late 1960's the warehouse was empty before being converted for gallery space and offices. The Arnolfini Art Gallery was opened in 1975.

Peter Insole, BaRAS

ST STEPHEN & ST AUGUSTINE

City Centre. Monitoring of works associated with the remodelling of Bristol City Centre revealed part of the Frome culvert - constructed of brick in 1893, a segment of 19th-century pennant sandstone wall and parts of the quay and its associated features. All the exposed features were left in-situ.

Rod Burchill, BaRAS

ST THOMAS & TEMPLE

55-61 Victoria Street, ST 5921 7271. This site on the corner of Saint Thomas Street East was the subject of a desktop study. The site originally comprised a number of properties fronting Saint Thomas Street, also the backs of some that faced east onto Temple Street. Both streets were major medieval thoroughfares. Between the two sets of properties lay the Law Ditch, a substantial feature. All frontages were built up before the end of the 17th century. A Quaker Meeting House was established to the rear of Temple Street. Industrial activities were pursued in Saint Thomas Street, with pottery production at No.131 Temple Street. In the 19th century two pottery kilns were erected to the rear of Nos. 37/38 Saint Thomas Street. Substantial reconstruction followed the cutting of Victoria Street at the end of the 1860's. The whole area was levelled during the Blitz.

John Bryant, BaRAS

TEMPLE

Plot 5, Temple Quay, (CMAG.1999.0054) ST 5951 7253. An archaeological evaluation of Plot 5 Temple Quay revealed the Portwall 0.5m below the surface and constructed of Pennant sandstone in red sandy mortar. This had been robbed from the west exposing the rubble core and leaving a 0.6m wide wall reused in the 18th century for cellars of properties to the east of Pipe Lane. In this form the Portwall had been rendered on its eastern face, painted yellow and truncated in places for coal shutes and cellar entrances. The exposed core was abutted by 18th-century industrial waste the removal of which revealed a greater thickness to the Portwall at a depth of 2.5m below the ground surface. A construction trench for the wall was not identified, although the footings were abutted by construction debris, consisting of red mortar and pennant sandstone fragments.

Evidence of the intramural lane was also identified with a succession of cobbled surfaces of 13th-17th century date laid on a 'causeway' of clay, possibly redeposited from the excavation of the Portwall ditch. This 'causeway' raised the lane surface above the flood plain level, identified as a band of organic clay overlying alluvial silts at c.6.6-6.8m aOD. Truncating these deposits was a 2.5m wide ditch, possibly excavated early in the 18th century to drain a formal garden shown on Millerd's map of c.1715. This ditch had been filled by a boundary wall for a ropewalk, shown on Rocque's 1742 plan, and glass waste deposits probably from the glasshouses in the area of Temple Gate to the south. The boundary wall had been reused for the footings of a 19th-century malthouse.

A second malthouse was revealed in Trench 3 towards the western boundary of Plot 5. This trench also revealed the boundary walls of the southern end of the Jewish burial ground, although excavation revealed no burials and no evidence of their removal. All the burials were reportedly removed in the 1920s for a railway goods shed, evidently the southern end of the burial ground was never used for interments.

Peter Insole, BaRAS

Plots 4A and 4C, Temple Quay, ST 595 726. Plots 4A and 4C lie immediately east of the13th- century Portwall of Bristol, on land which was classed as being outside the medieval town. No medieval features were revealed during the course of the watching brief. The earliest feature found was the remains of an18th-century stone culvert. This folowed the line of the Portwall ditch, which was culverted in the 18th century enabling land to be made available for extra-mural settlement. Revealed on both plots were the remains of pennant sandstone walls representing two phases of construction. The earliest phase relates to structures which formed part of the extra-mural settlement, pre-dating the construction of the 1840s Goods Shed, the second phase represents part of the 1840s Goods Shed. The archaeological watching brief revealed that little development had taken place on the site prior to the 19th century.

Jayne Pilkington, BaRAS

The Former Central Electric Lighting Station, Temple Back, (CMAG 1999.44). ST 59398 72842. An archaeological evaluation was undertaken in an area of waste ground located at the south-eastern end of this late Victorian building. The fieldwork, comprising the mechanical excavation and subsequent hand-digging of two trial trenches, was carried out in advance of proposed

re-development of the site as residential accommodation. The first trench, opened adjacent to the waterfront, exposed a brick-vaulted cellar and structural foundations belonging to industrial/commercial premises shown on Plumley and Ashmead's map of 1828. The second trench, located adjacent to Temple Back, contained part of a suspected inlet or pill depicted on Millerd's map of 1673. This feature could not be investigated properly for health and safety reasons, but its uppermost fill was found to contain pottery dating from the 15th and 16th centuries. The overlying stratigraphy consisted of landfill deposits and made-ground dating from the early post-medieval to modern periods. A possible buried soil horizon of late 16th/early 17th century date was also recorded, as well as former ground surfacing associated with 18th- and 19th-century occupation of the site.

Adrian Parry, BaRAS

WESTBURY ON TRYM

26 Mariners Drive, Sneyd Park, ST 5562 7569. A watching brief was undertaken during the construction of a house at the rear, off Old Sneed Park. Nothing of interest was found.

John Bryant, BaRAS

17-27 Lyndale Avenue, Stoke Bishop, ST 5556 7627. An archaeological watching brief was carried out on a small housing development. A wall and its associated construction cut of post-medieval date, were the only archaeological features revealed.

Jayne Pilkington, BaRAS

WHITCHURCH

Whitchurch Folk Centre, East Dundry Road, ST 6038 6748. A desktop study of buildings and land known as Whitchurch Folk Centre found that the site, formerly part of Bridge Farm, lay in an ancient landscape that had been occupied since at least the Iron Age. Extensive evidence of Romano-British activity lay nearby and the Saxon settlement of Whitchurch a little to the east. The site lay on the western edge of the 13th-century Lyon's Court Farm. During the 18th century the fields containing the study area were laid to pasture; by the mid-19th century many of the surrounding fields had been planted with orchards.

Little documentary evidence was found for Bridge Farm itself; though it was certainly in existence by 1817 and evidence from the surviving building suggests that it probably dates from the 18th century.

Rod Burchill, BaRAS

NORTH SOMERSET

BANWELL

Banwell Roman Villa, ST 3984 5920. Observation of the installation of a post and rail fence in a Scheduled Ancient Monument located a possible unmortared stone wall of uncertain date which was not damaged by the fence installation. Six sherds of Romano-British pottery were recovered and one possible Saxon sherd.

J G P Erskine, AAU

BLEADON

Whitegate Farm, ST 3399 5692. Excavation of the area of a proposed residential development located an area of Late Iron Age ritual pits containing two adult interments, the female with an iron penannular brooch, with other pits containing horse skulls and a complete sheep. The majority of the pottery assemblage can be dated to the Early-Middle Iron Age and there was also some residual Bronze Age pottery. Medieval boundary ditches reflected garden or tenement plots of the 12th to 13th century.

J G P Erskine, AAU

EASTON-IN-GORDANO

Royal Portbury Dock, (NSM 1999.126) ST 520 765. A desk-based assessment of proposed railway sidings on the south bank of the Avon, northwest of Pill, was undertaken for Bristol Port Company. An appraisal of available aerial photographic material was undertaken as part of the project. The assessment area was centred on Morgan's Pill, a narrow tidal creek and the adjacent area of reclaimed meadow fronting the river Avon. The assessment identified ten previously unidentified sites, all of which are minor features mostly associated with agricultural improvements carried out during the post-medieval period, including linear drains and feeders and possible 'narrow rig' steam ploughing underlying a later drainage system. The area appears to have been reclaimed and sea defences constructed, at least by the end of the 18th century, while the resulting meadows were later improved and drained probably during the latter half 19th century. Morgan's Pill, for which little documentary evidence survives, appears to have been used for relatively minor boat repair and was over-shadowed by the nearby thriving port of Crockerne Pill, a main centre for the pilots of the Avon and Severn rivers.

Richard Roberts, GGAT

KENN

Cottage adjacent to Stonehouse, ST 421 691. An early 19th-century cottage was researched and recorded before demolition. This represented half of a pair of back-to-back cottages, the western half had been demolished before 1883. This surviving cottage was used as Air Raid Precautions Headquarters in World War II, when some 20th-century features, notably steel windows, were installed.

J G P Erskine, AAU

KEWSTOKE

Pontins Site, Sand Bay, (CMAG.1999.195) ST 3351 6400. An archaeological evaluation on the area of a proposed extension to Pontins, Sandbay Holiday Camp at Kewstoke was carried out. Six trenches were excavated, dispersed over a large area of open fields situated on the wetlands of the North Somerset levels. No archaeological features were identified, although deeper machined sondages in four of the trenches revealed an organic deposit of peat at depths

between 3 and 4 metres below the ground surface. Three of these sondages formed a north-south transect across the site revealing that the peat layer was rising and thinning from 1.74m above Ordnance Datum (aOD) and 0.5m thick, at the northern end of the site, to 2.49m aOD and 0.2m thick at the southern end. Further work is intended to recover samples for radiocarbon dating and palaeoenvironmental study.

Peter Insole, BaRAS

KINGSTON SEYMOUR

Cherry Tree Farm, ST 4005 6670. Field evaluation in advance of development recovered several residual sherds of Romano-British pottery and found two medieval ditches or channels which can probably be dated to the 12th or 13th centuries. The latter features conceivably represent elements of a medieval and earlier 'infield' agricultural system known to have been practised on reclaimed/recolonised land of the North Somerset Levels. No associated medieval structures were encountered.

Alistair Barber, CAT

LOCKING

Moor Lane, (WESTM 1999.488) ST 360 315. An archaeological field evaluation of a site at Moor Lane was carried out in December 1999, in advance of residential development. This involved a programme of trenching on former pasture-land. The site lies wholly in the North Somerset Levels adjacent to a possible Romano-British field system. Negligible palaeoenvironmental deposits were revealed by the field evaluation though no significant archaeological remains were uncovered.

Jens Samuel, BaRAS

NAILSEA

Nailsea Glassworks, Testpits, ST 477 709. Observation of engineering testpits located the face of a 19th-century quarry and noted that some masonry walls of the 18th- and 19th-century Nailsea Glassworks survived below the floors of the modern garage.

J G P Erskine, AAU

PILL

Mains Scheme, ST 51620 75240 to ST 52040 75640. A watching brief conducted along the length of the Pill water main identified no significant archaeological deposits.

Mark Brett, CAT

PORTBURY

The Grove, Ham Green, ST 5300 7547. Excavation of the site prior to redevelopment located evidence of residual Romano-British and medieval occupation. An extended period of post-medieval activity from the 17th-19th centuries was represented by a boundary ditch and a demolished cellar and associated masonry dated to the late-17th century. 'The Grove', a Victorian Gentleman's house, was later constructed over the remains in the 19th century and finally demolished in the 1930s.

J G P Erskine, AAU

St Katherine's Park, Ham Green, ST 5300 7547. Archaeological recording work of a site of major residential development located a large collection of medieval pottery sherds dating from the 12th-15th centuries, but no evidence of the medieval Ham Green pottery kilns. Structural remains were associated with the 19th-century Fever Hospital and ancillary buildings.

J G P Erskine, AAU

PORTISHEAD

Charlcombe Bay Caravan Park, (WESTM 1999.390) ST 7520 4380. A desktop study of the archaeological potential of the site, which is currently occupied by a caravan park, was conducted prior to the granting of planning permission for the development of residential housing. The assessment showed that there is little direct evidence for the presence of archaeological remains on the site. However, the proximity of the study area to known prehistoric and Romano-British sites suggests that archaeological features or deposits may be present.

Tim Longman, BaRAS

WESTON-SUPER-MARE

Woodspring Road, Worlebury, ST 336 632. Sample excavation of the area of a proposed development adjacent to the present Worlebury School, located probably modern stone-filled land drains in an area of solely agricultural or horticultural activity.

J G P Erskine, AAU

23 Beach Road, (SESTM 2000.91) ST 3184 6114. A desktop study was carried out on the site which is currently a carpark. The study identified that the site has been developed since the 1830,s and initially comprised three residential properties with gardens, 'Holme View House', 'Portland Place', and 'Steep Holmes House'. The houses fronting on to Carlton Street; nos 1-4 on land to the rear of 'Holme View House', were built in the 1860's. The site was cleared from late-1958 for a proposed redevelopment.

Tim Longman, BaRAS

WINSCOMBE

Land at Knapps Drive, ST 4181 5776. A desktop study suggested that the site had been agricultural since at least the medieval period. The study area probably remained relatively unaltered until the second half of the 19th century when a large house known as 'Kildare' (now 'Mooseheart') was constructed on the south side of the hill and a formal park was created out of the wooded hill and, possibly, the surrounding fields. The arrival of the railway in 1869 considerably altered the landscape with major changes to the field boundaries taking place at this time or soon afterwards. An aerial photograph from a series flown in 1991 showed a rectangular crop-mark on level ground at the north end of the site. The shape and location of the crop-mark suggested that it might represent the site of a dwelling recorded in late 13th-century documents.

Rod Burchill, BaRAS

Land at Knapps Drive, (WESTM: 1999.273). ST 4181 5776. Seven trial excavation trenches were opened in a field located at the base of Knapps Hill prior to a proposed residential development scheme. Little of archaeological significance was recorded, apart from an infilled modern road skirting the base of the hill, a post-medieval stone path or track approaching the hill from the village, and a buried soil horizon of indeterminate date. A small assemblage of prehistoric flint and Romano-British pottery was recovered during the evaluation, but this material was either unstratified or residual. There was no evidence of a suspected medieval house platform shown as a crop mark on an aerial photograph of the site.

Adrian Parry, BaRAS

Nippors Way, ST 4200 5750. Sample excavation of the area of a proposed redevelopment located a cobbled surface, of probably post-medieval date. No evidence was located of the 18th-century Lamb Inn, which had probably already been removed by modern demolition and construction activity.

J G P Erskine, AAU

WRINGTON

Bristol International Airport (WESTM 1999/412), ST 5130 6480. An archaeological watching brief was carried out during topsoil stripping along the route of the realigned section of the A38 to the east of Bristol International Airport, in October 1999. A small number of prehistoric worked flints were recovered, close to two previously recorded sites (NSSMR 625 and NSSMR 679). However, no other significant archaeological features or deposits were recorded.

Tim Longman, BaRAS

SOUTH GLOUCESTERSHIRE

ALMONDSBURY

Former Hortham Hospital, ST 6200 8430. An evaluation was undertaken throughout the grounds of the derelict hospital. Previous small-scale excavation in 1969 in the north-west part of the grounds had revealed late Iron Age gullies, a stone wall and a timber building which had been abandoned by the early 2nd century AD, although the full extent of the settlement was not established. The evaluation identified further evidence of late Iron Age and Romano-British deposits 170m south-east of the earlier excavation. A late Iron Age segmented ditch or pit alignment and a ditched boundary were found. The Romano-British activity consisted of agricultural ditches, the lack of structural features and the abraded nature of some of the pottery suggesting that it was peripheral to the main settlement. The pottery suggests a predominance of activity in the 3rd and 4th centuries which contrasts with the findings of the 1969 excavation.

Clifford Bateman, CAT

St Swithin's Deer Farm, Over, ST 585 816. Archaeological excavation of the area of a residential development produced the following data. Prehistoric negative features associated with an adult cremation can be dated to the later Early Bronze Age. Romano-British activity of the 3rd and 4th centuries AD were evidenced by a series of truncated ditches with building rubble and negative soil features, including two timber structures. These deposits probably represent a widespread Romano-British farming and industrial settlement, which included metal working. The building debris including box-flue tiles and ceramic roof tiles indicates the presence of villa-type buildings not yet locaed.

J G P Erskine, AAU

St Swithin's Deer Farm, Over, ST 585 816. Archaeological observation of the area of a golf course development located six fragmentary archaeological features, approximately dated to the medieval and post-medieval period. Two masonry pads and an associated stone spread were interpreted as construction features, possibly rick bases or gate posts, associated with St Swithin's Farmhouse, dated to the 19th century. A small length of wall with an 18th- or 19th-century sherd embedded into it appeared to be a boundary wall of the farmyard. Linear soil features to the south of the Victorian boating lake, which may be the remains of a boathouse, produced artefacts ranging from prehistoric struck flints to post-medieval pottery.

J G P Erskine, AAU

CROMHALL

St Andrew's School, ST 693 905. Observation of the groundworks for the installation of temporary and associated services indicated that the land previously used for arable agriculture had not been occupied by any permanent settlement. The remainder of the field had traces of residual ridge and furrow cultivation.

J G P Erskine, AAU

Cromhall Quartzite Quarry, ST 688 896. Archaeological evaluation on the site of a proposed extension to the RMC Quartzite Quarry provided the following data. Anomalies located by previous exercises, including a geophysical survey in 1997, were found to be of natural geological origin, apart from modern land drains. The area of known demolished buildings of the early 19th century had been completely cleared. No significant archaeological deposits or artefacts were recovered.

J G P Erskine, AAU

HANHAM ABBOTTS

No.50 Stonehill, Hanham, ST 652 717. Archaeological research including sample excavation, of the area of a proposed residential development recorded the fact that no significant archaelogical deposits survived despite being closely adjacent to the line of the Roman road and a late Romano-British settlement. A few abraded Romano-British

sherds were recovered from a secondary deposit. The site had been farmed on the strip system before 19th-century enclosure. A 19th-century coal mine drainage level passes below the site.

J G P Erskine, AAU

Hanham Business Park, ST 638 721. Observation of an area of redevelopment and landscaping indicated that all significant archaeological deposits had been previously removed from the site.

J G P Erskine, AAU

MANGOTSFIELD

Rodway Hill, ST 669 758. Archaeological assessment of the area of a proposed educational and temporary use development produced the has located two rectangular stone buildings, a circular stone feature and deposits of industrial residues connected with metal working. Other features include postholes, a trackway and a stone cist connected with a considerable area of Romano-British settlement, dating from the 4th to 5th century.

J G P Erskine, AAU

Fairview, Emersons Green, ST 670 765. Archaeological investigation of the area of a proposed residential development included geophysical survey and sample excavation. It was concluded that the site had been rarely utilised in the past or that 20th-century development had removed all significant archaeological deposits.

J G P Erskine, AAU

Land Pit, Emersons Green, ST 667 763. A detailed, pre-demolition, programme of recording was undertaken in order to create a three-dimensional record of the 19th-century Land Pit winding-engine complex. The work also entailed investigating the nature and function of each element which comprised the building and showed that Land Pit, along with nearby Deep Pit (or Bullers Pit), was a typical small-scale coal mining building dating to the second half of the 19th century. The Land complex itself comprised a subterranean water-storage facility, boiler room, chimney stack, steam-engine base, winding-drum room, control room and masonry access stairway. Ancillary structures included two masonry piers which served to support a frame guiding the cable between the winding-drum and pit head. The relatively humble status of the Mangotsfield Coalfield appeared to be reflected in the standard of workmanship employed in the construction of the building which was generally poor. Second-hand materials were used where possible and it has been suggested that the machinery for the building may also have been second-hand.

J G P Erskine, AAU

Hamlet XII, Emersons Green, ST 671 763. Archaeological Excavation of the area of a residential development produced prehistoric negative features associated with an adult cremation that can be dated to the later Early Bronze Age similar to that located on the adjacent site at Cossham Street Mangotsfield (see BAA 13, 90). Romano-British activity of the 3rd and 4th centuries AD were evidenced by a series of truncated ditches with building rubble and negative soil features, including two timber structures. Possibly these deposits represent a widespread Romano-British farming and industrial settlement, which included metal working. The building debris, including box-flue tiles and ceramic roof tiles, indicates the presence of villa-type buildings not yet located, but see Rodway Hill investigations.

J G P Erskine, AAU

Cossham Street, Augustus Park, ST 668 763. Excavation of the area of a residential development produced the following data. Early Bronze Age activity was represented by two groups of post-holes and negative soil features. No structures were located apart from clay-lined features tentatively interpreted as hearths. Stratified pottery was dated to the early Bronze Age. Romano-British activity was represented by a series of enclosure ditches making up part of a field system, dated to the later 3rd century AD. A later phase was represented by a probable fence foundation with postholes and two fragmentary stone walls. The precise function of these last features could not be determined, but were associated with both domestic and industrial artefacts and deposits, especially metal-working. A well-made limestone sarcophagus burial was located in isolation outside the corner of one enclosure. This coffin contained two burials: a female primary interment had been superseded by a male body, and the broken lid replaced. There were no grave goods, but hobnails indicated the presence of sandals.

For a possible extension of this Romano-British site to the south, see Rodway Hill, this volume.

J G P Erskine, AAU

OLDLAND COMMON

JJ Gallagher Retail Park, Longwell Green, ST 652 718. Observation and recording of the area of a commercial development for JJ Gallagher Limited produced the following results. A shallow iron ore mine with a possible bowl furnace and associated metal-working residues can be dated to the Romano-British period. These structures were adjacent to other recorded boundary ditches of similar date. This site is closely adjacent to Stonehill Farm and Stonehill Nursery where substantial evidence of a Romano-British masonry-built farmstead and other industrial, funerary and agricultural features have been located since 1993 on the line of the Avon Ring Road construction. These have been dated to the late-2nd to 4th centuries AD.

J G P Erskine, AAU

PUCKLECHURCH

Tennis Court Site, Moat House, Kings Lane, ST 697 766. Archaeological investigation of the area of a proposed

NOTES

PUXTON, the origins and development of a dispersed medieval settlement pattern

Dr Stephen J Rippon

In September 1999, further survey and excavation was carried out in and around the shrunken medieval hamlet of Puxton, in North Somerset (ST 407 6733; see Medieval Settlement Research Group Annual Report 12, 1997, 18-20; Archaeology in the Severn Estuary 8, 1998, 69-78). Further work was carried out in Church Field, the oval shape of which suggests it may have been a very early feature in the development of the historic landscape. One trench sectioned a bank that runs around the edge of the field, and the provisional results suggests that it was built directly on the surface of the saltmarsh that covered the North Somerset Levels during the post-Roman/early medieval period. A second trench, near to the church, investigated an area with high levels of phosphates and heavy metals (lead, copper etc) in the soil. A deep sequence of occupation was uncovered, stretching back to at least the 10th century. The site appears to have been abandoned during the 13th century (very little Ham Green Ware was recovered).

Further survey work was carried out on the church, with an inspection of the roof. The present structure dates to the 16th century, though traces of an earlier roof line on the side of the tower show that the present structure is not the first. The style of the roof is very simplistic, almost domestic in character, suggesting a number of possibilities; that it was never intended to be visible, that it was re-used from another structure, or that insufficient funds were avalable for a more sophisticated structure. Re-use from an earlier building appears very unlikely (though one window on the northern side of the nave has been re-used from a domestic building). The suggestion that the roof was never intended to be seen is also unlikely as several of the timbers have been white-washed. It would appear, therefore, that we have an extremely simplistic 16th-century construction. Three of the four windows on the southern side of the church are also 16th century, while a date stone above the porch gives 1557. The latter has been added rather crudely to a second stone containing the coat of arms of the St Loe family who held Puxton from the 15th century to 1563. It is tempting, therefore, to suggest that Puxton church saw a major renovation during the mid-16th century.

Work also began on a systematic survey of some of the older domestic buildings in the parish. Eight houses were surveyed, several of which may be late medieval (15th century?) in origin. In two cases, however, pottery collected from flower beds was far earlier (at least 13th century). This work is starting to confirm the model that while the oval-shaped 'infield' enclosures were the earliest areas of the North Somerset Levels to be embanked and drained, and subsequently formed the focus for small settlement nucleations, the area soon developed a dispersed settlement pattern.