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Cover: Part of a 2nd century AD relief from a Roman villa site in Freiberg, Germany, showing a wagon drawn by 3 horses carrying an item sometimes interpreted as a wicker chair or a stone block. © Landesmuseum Württemberg, ©The Trustees of the British Museum.

CONTRIBUTIONS

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THE ROMAN MARKET ECONOMY AND LOCAL ROADS: REGIONAL LAND TRANSPORTATION OF GOODS IN NORTH SOMERSET

(This paper was originally published in the journal Itinera, volume one, in the spring of 2021. Itinera was produced by the Roman Road Research Association, a nationwide society promoting the study of all aspects of Roman roads. I am grateful that the Roman Road Research Association was happy for the article to be reproduced here, where it will hopefully be of interest to those who live in the area covered by BAA.)

By Bev Knott

ABSTRACT

Within the area of Northern Somerset bounded by accepted Roman roads – the Bath to Sea Mills to the north, the Fosseway to the east, the Charterhouse to Winchester to the south – there are no generally agreed Roman roads. Yet this area, especially its western portion, was particularly endowed with a lively economic base and it is suggested that local roads were needed to facilitate this economic activity, and that moreover such economic activity had to be embedded in the Empire-wide market economy. The idea of an inter-regional market-based economy is proposed severally by professors Peter Temin, Keith Hopkins, Brian Ward Perkins, who adduce the sheer quantity of silver coinage throughout the Empire and beyond, the evidence of profitability and value-based trade and the widespread existence of specialised bulk production. Examples include Samian ware and olive oil, and in Britain include Purbeck marble and pottery such as Oxford colour-coated ware. Examples from North Somerset comprise the major industries of lead and salt, and also building stone, iron mining, metalworking including pewter production, Congresbury pottery, with various ranges of distribution. It is argued that the local roads needed to serve this activity fitted into the Roman legal framework relating to roads, being classed as Viae Vicinales, roads that served localised communities, and were administered by the Civitates under the Lex Provinciae. Finance could come from local taxation or euergetism. It is argued that the Roman army had nothing to do with these roads since all military forces were withdrawn from the south-west within 30 years of the initial invasion, and the development of most of the local economy didn't occur until later. Nevertheless it is suggested that Viae Vicinales conformed to the general pattern of Roman road construction; there are several very short stretches of metalled minor roads in North Somerset as well as evidence of engineering, and it generally seems likely that cultural assimilation and aspiration would lead to imitation of military roads, as with villas and so much else. The traditional objection against land transportation of excessive cost is addressed through Professor Ray Lawrence's arguments about profitability as opposed to cost, as are aspects of freight technology. Together with this discussion of land freight transportation, three roads are described in detail which fit the requirement that they link centres of population and of economic activity, and which present strong evidence for their being recognisably Roman roads. One of these has excavation evidence, one has geophysics, the third a mass of circumstantial evidence support (such as construction technique, passage through Romanised landscapes, clear economic function), as do the 14 other postulated roads in the appendix.

INTRODUCTION

Apart from the road connecting the Roman towns at Charterhouse, Somerset, and Old Sarum, Wiltshire, (Margary RR45b), which clearly had to do with the lead and silver industry of the Mendips (Elkington 1976, 188), no major Roman roads are known to exist in North Somerset. Yet a significant amount of economic activity went on, with production levels beyond the requirements of the immediate locality. Concentration and specialisation argue a market economy, i.e. economic activity well above a general simple peasant subsistence agriculture, providing a meagre surplus to be extracted for the comfortable life of a small minority of the well-to-do and for defraying the requirements of the army. Such a market economy existed on a macro-economic level in and beyond the Roman world. It is to be expected that a local scale of economic production and exchange also existed – meshing in with, supporting, and enabled by, the wider extent of the Roman market economy. Materials and products therefore needed to be transported. Dirt roads may have served this purpose, but this paper proposes that local metalled roads, constructed perhaps to a lesser standard than the major roads, and administered locally, linked small towns and economic centres, and provided the means to transport the materials and finished goods of the specialised production of North Somerset. (This will be detailed below under 'North Somerset examples of specialised large-scale production'). It is accepted that waterborne transport will also have contributed to local transportation, but this paper will concentrate on road transport.

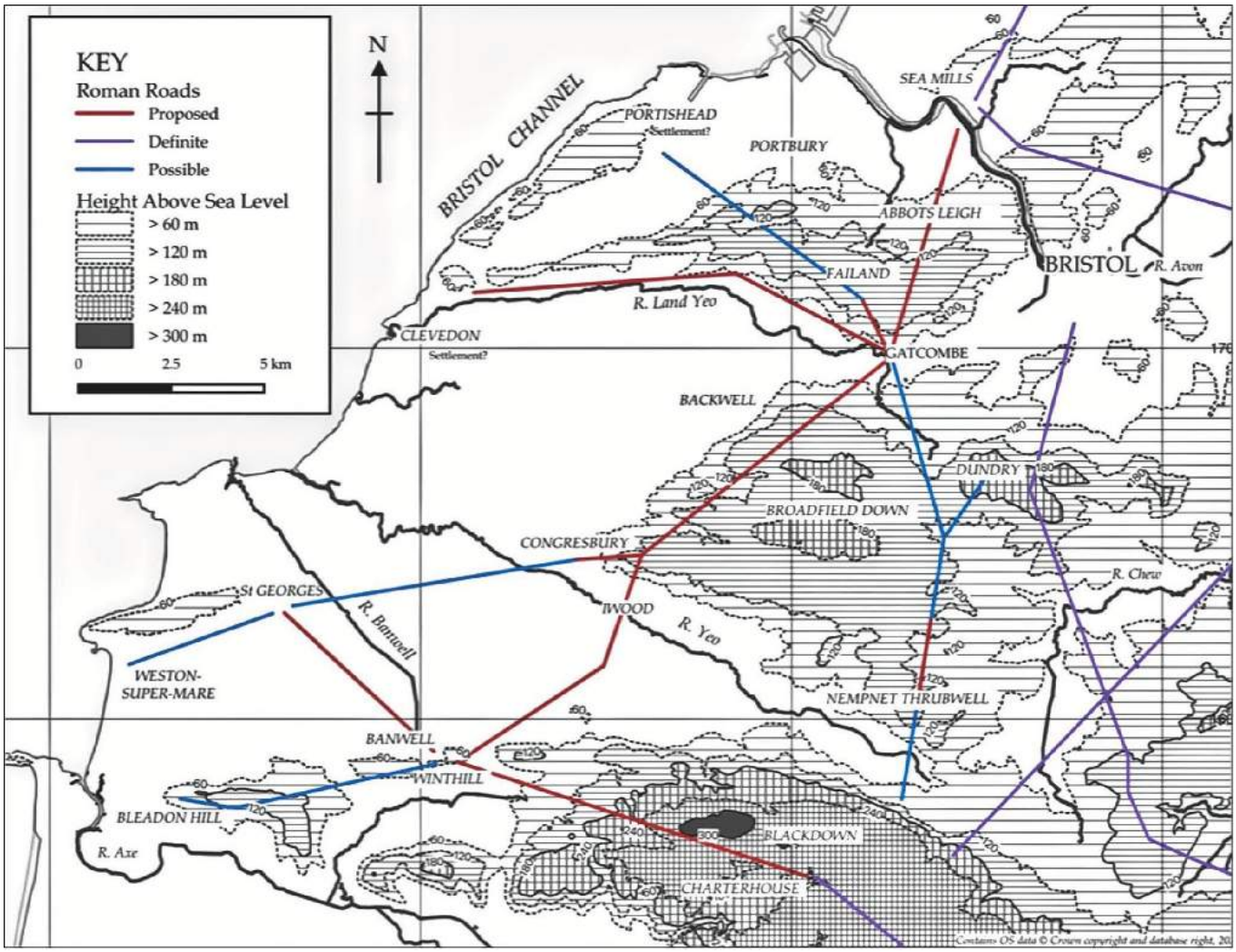

Fig. 1 The proposed network of North Somerset local Roman roads. (Re-drawn by Tim Richards, after H Freke).

While this paper was written by the author, it was a group of us (named in the acknowledgements at the end of the paper) who were involved in the fieldwork, tramping the ground, exchanging ideas, and examining IT mapping resources, such as lidar.

THE IDEA OF A ROMAN MARKET ECONOMY

It is now widely accepted that trade and commerce in the Roman world functioned and thrived through a series of inter-regionally connected economies that added up to an overall market economy, most strongly and pervasively in the first and second centuries AD but still continuing in the third and fourth centuries at a lower level of prosperity, which nevertheless exceeded that of areas beyond the frontiers. Moses Finley's ideas (1973) of a mainly subsistence economy in which a relatively restricted elite creamed off the limited surpluses of a poor peasant mass of small farmers has been substantially modified, not least thanks to the very extensive developer-funded archaeological activity since 1990. Scholars such as Temin (2012), Hopkins (1980), and Ward-Perkins (2005) characterise the Roman economy by describing the huge amount of coinage in circulation, the increasing marketisation and commercialisation of trade, and specialised bulk production. Products such as samian ware and olive oil are examples of mass circulation.

Britannia

Specialised large-scale production also occurred in Britain. To give just three instances: Purbeck (South Dorset) marble used for a variety of purposes is found throughout southern England and into the Midlands (Pearson 2006, 109–116); Oxfordshire colour-coated pottery is found throughout the province (Ward-Perkins 2005, 93); and fine adzes fashioned in the Weald, Kent, are found from the far north to the south of Britannia (Allen 2007, 354 & Fig.7.51).

North Somerset

Examples of specialised large-scale production

Of course no doubt the main occupation of North Somerset Roman period inhabitants was agriculture, although Row of Ashes farmstead (Fowler 1970) suggests this was not necessarily at subsistence level. Food produce was needed for those, such as the miners of Mendip, whose main

activity did not involve agriculture – and numbers of these, unknown but not insignificant, existed in North Somerset.

Two enterprises were substantial:

Lead Mining: a major industrial undertaking of supra provincial importance; ingots have been found along the road to the port of Clausentum (Bitterne , Southampton, Hampshire), in Gaul, and the lead product has been identified in a tank at Pompeii (Elkington 1976, 188). The main centre at a town near the modern village of Charterhouse covered an area of at least 27 ha and perhaps more, as the site has not been fully investigated. Since no field systems have been found, all food had to be carted in (Elkington 1976, 197) together with much else ranging from basic necessities to luxuries. Transportation out of the site required animals, vehicles, repair and maintenance facilities, stabling, drivers, and farriers. It was a busy important place, even if not dignified enough to rate town walls (although much bigger than the area contained by the walls of Bath).

Salt: the site at St Georges, North Somerset, according to its excavators (Cox and Holbrook 2009, 114), operated at an 'industrial scale' and its production did not aim at purely local supply, so 'some must have been designated for export'. Furthermore this site, along with a number of other salt production sites in North West Somerset (see Fig. 2),

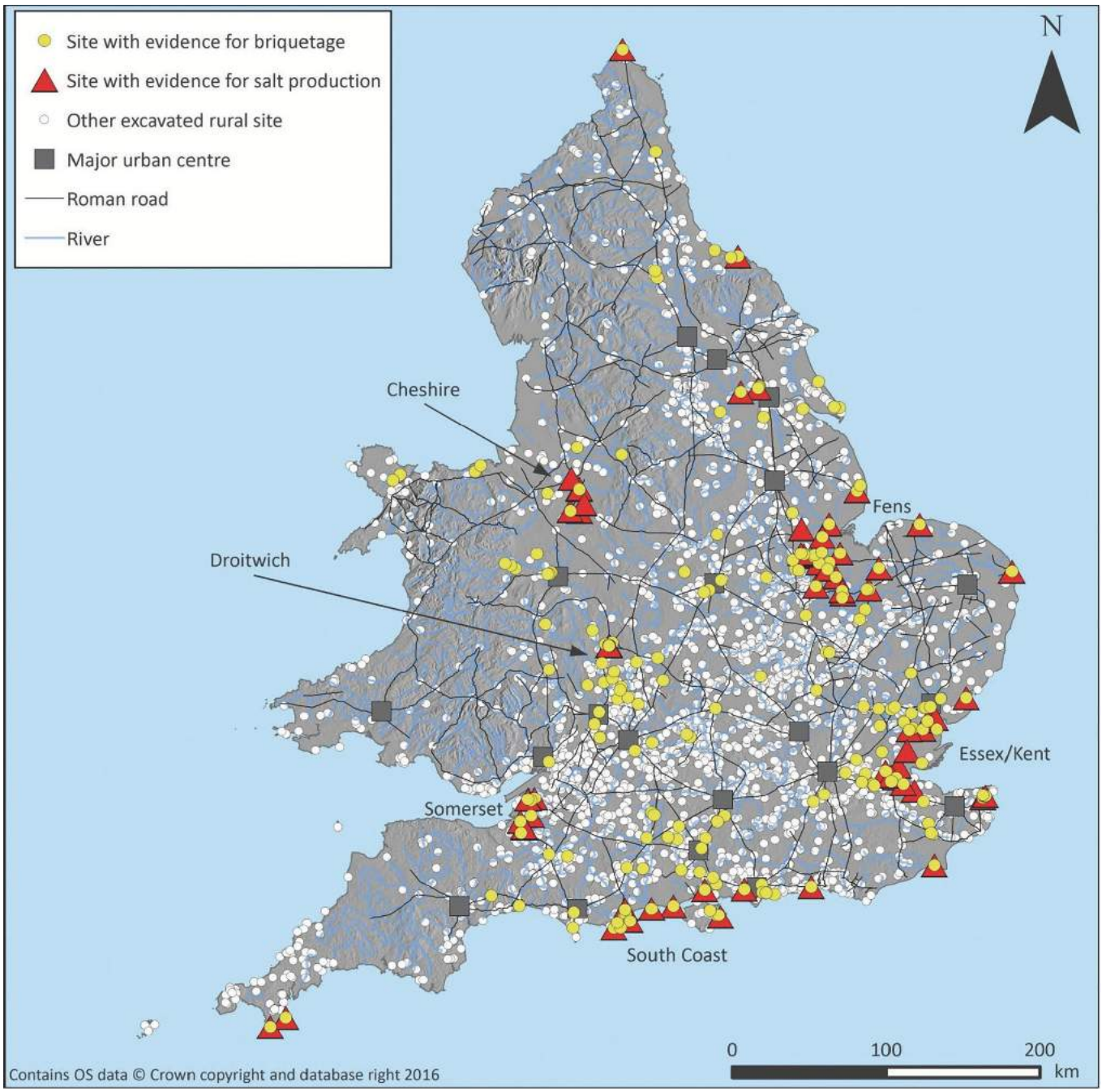

Fig. 2 Map to show the importance of Roman salt production in North Somerset. (Courtesy of the Society for the Promotion of Roman Studies, publisher).

comprised one of the six largest centres of this industry in *Britannia* (Smith 2017, 195).

Other north Somerset industrial activity worked on a more local level:

Iron mining: especially on Broadfield Down, North Somerset. An iron smelter has been found just outside nearby Congresbury (Nicholls 2016) and there is evidence of scattered small-scale iron smelting across the whole area (Vince Russett 2018, pers comm 19 June). Iron working has been found at Gatcombe (Branigan 1977,184).

Metal working (smithing): the making and repair of tools and metal equipment is seen as an important activity in places like Banwell/Winthill, North Somerset (Historic England 2021a) and Gatcombe (Branigan 1977, 125–7).

Stone quarrying: quarries to the west of Dundry village provided yellow Oolitic limestone for Gatcombe, and it was even exported as far as Cardiff for the fort there (Aston and Iles 1986, 66).

Pottery: Many pottery kilns have been found on the south western edge of Congresbury, North Somerset (Russett 2016). Recently an enigmatic double concentric-ringed example has been excavated. Identifiable Congresbury Ware sherds occur throughout North Somerset (including Gatcombe) and into South Bristol. Clearly Congresbury did not equal the great pottery production centres such as South Dorset or Nene Valley in quantity, quality, or range of distribution, but did provide medium quality products over a radius of up to 20 miles or so (Smith 2018, 195; Rippon 2008).

Goods produced elsewhere came into North Somerset. For example, no local production centres for glass or ceramic building material (e.g. roof tiles and box flues) are known in this area. Pottery found at Gatcombe came from a wide area beyond North Somerset (Branigan 1977, 95–96). One can be certain of a considerable inflow of goods.

SOME LOCAL ROADS IN NORTH SOMERSET

Introduction

Moving goods needs good roads, and where feasible, waterborne transportation. With up to 1000mm of rain each year, much more on the highlands (especially Mendip) and substantial areas of potential marsh, dirt tracks could not have offered the effective communications required for transporting lead, iron, salt, and stone from early in the Roman era. Later, agricultural produce, pottery, manufactured products such as pewter and goods, and materials from elsewhere, added to the need.

Thus it is very likely that a network of local, reasonably well-made roads developed over the centuries. If the Fosse Way near Radstock, not too far away, presented multiple rebuilds to the excavators, showing heavy continued use long after the initial military phase (Davenport 2007, 133), then it is logical to expect the provision of adequate road construction in North Somerset. Furthermore, the recent discoveries of a metalled track to the east of Venus Street, Congresbury (Eaton & Flaherty 2019) and also of a metalled track leading north west from Banwell villa towards Wolvershill Road (one of our proposed Roman roads), suggest the possibility of more general metalling (Simmonds 2019). We have been looking for evidence of such roads. Our method of operation has been to identify likely needed routes between settlements and centres of economic activity, then to discover the roads that followed these routes.

This paper consciously focuses on 'local' roads generated by the local industrial and agricultural economy. Such roads of course have to be seen as a component of the wider network of Roman roads, including inter-regional strategic roads (in our region interconnecting say Gloucester, Cirencester, Bath, Ilchester, Exeter and Caerwent), roads to ports (Sea Mills and Crandon Bridge), to villas, to rural temples, and to signal stations. Which route a road chooses, and how roads interconnect, will to an extent be dependent upon which roads were built first; although over the centuries changes to the road network are to be anticipated. None of these higher levels of the road network will be discussed further here.

Methodology

1. Identify study area. The first job was to identify a discrete locality for study. We decided on the approximate area of the North Somerset Council, but adding in some adjacent parts of the county of Somerset and of Bath and North East Somerset. The boundary of the study area goes along the coast of the Bristol Channel from the mouth of the River Avon to that of the River Axe, then along the southern slopes of the Mendips as far as Priddy, then northwards through Chew Valley Lake, Chew Magna, then Pensford, Keynsham, and around the southern boundary of Bristol to meet the River Avon where it divides from the floating Harbour opposite Hotwells. The original plan was to include all of Bath and North East Somerset as far as the Fosse Way, but so far time has not allowed this, and this somewhat arbitrary chunk of country is sufficient to explore the idea described in the introduction and the beginning of the discussion.

2. Identify centres of population and sites of economic activity using historic environment records (HER), excavation reports, books, and journals, for possible corridors of communications between them.

1: Winthill/Banwell to St Georges

A road is to be expected (Fig. 3) between Winthill/Banwell (ST 39669 58766) and St Georges (ST 36803 62772). Winthill was one of four main centres of lead production in the Mendips and was the site of metalworking. Investigation has until now been very limited but it has been suggested that the site may cover a considerable area, perhaps as far south as the river Lox Yeo

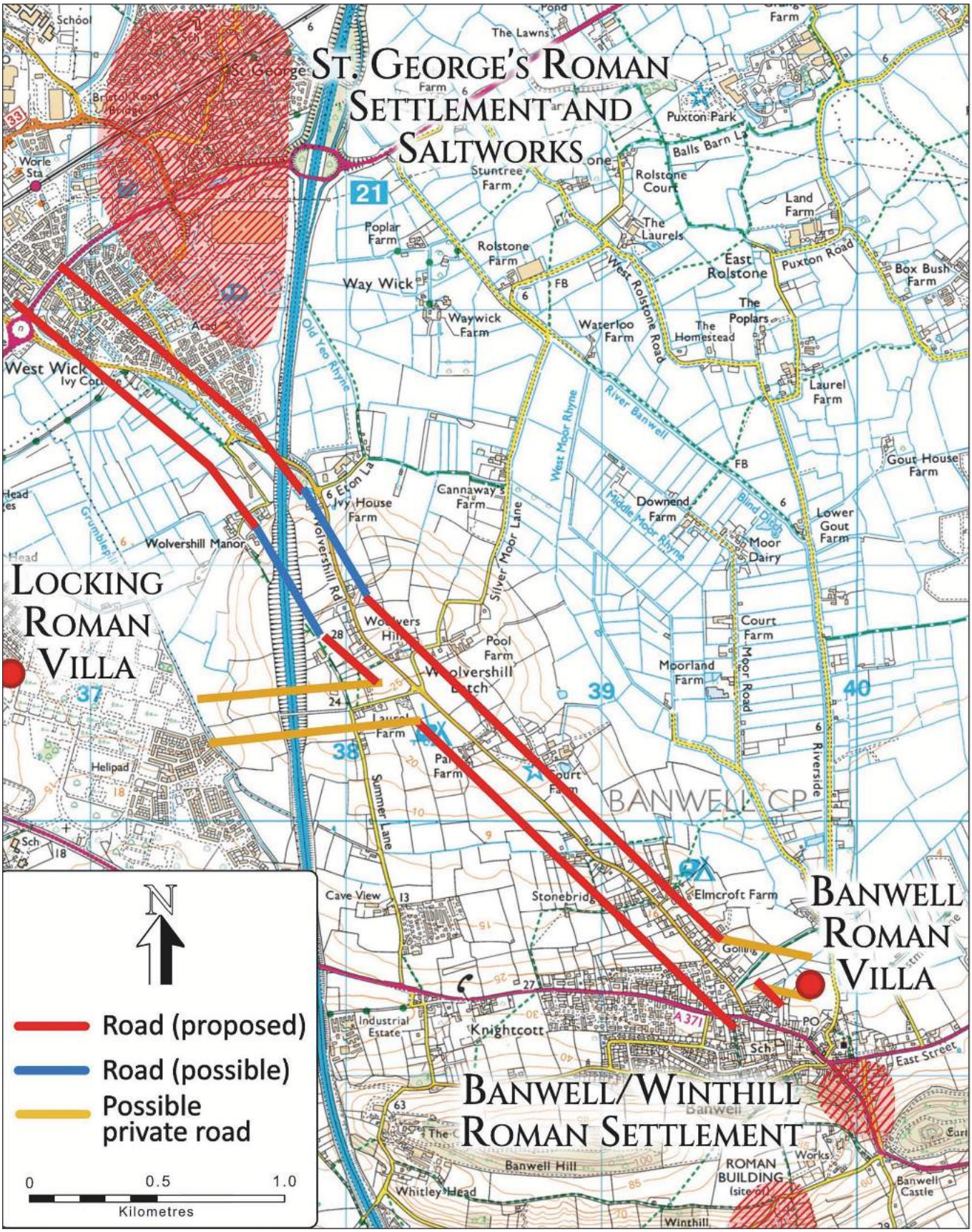

Fig. 3 Proposed route for Road: Winthill/Banwell to St Georges. Roads are marked as a pair of lines parallel to the road so as not to mask modern features which may fossilise the Roman line. (© Crown copyright and database rights 2021 OS 100063221).

(Vince Russett 2018, pers comm 30 April). Very recently, an important roadside settlement, described by the archaeologists as "high status site" and of "national importance" has been found. Excavations of buildings, road and a mass of objects have justified our previously proposed identification of this place as a probable communications hub with roads radiating in several directions. Further routes now suggest themselves, which we are eager to investigate, strengthening our basic concept that Roman roads must be considered taking in to account their economic significance, as connecting population centres and sites of economic importance. To the north, Banwell has a substantial number of Roman finds suggesting a further population here, as well as the villa (North Somerset Historic Environment Record) (Fig. 4).

Saint Georges has a settlement (North Somerset HER 4914), although its size is not clear, and had a major salt industry described as being 'of an industrial scale' and producing more than needed locally, so evidently intended for transportation elsewhere (Cox and Holbrook 2009, 144). Other local saltworks combined with St Georges to comprise one of the six main salt producing concentrations in *Britannia* (Smith 2017 195) (Brunning and Grove 1998).

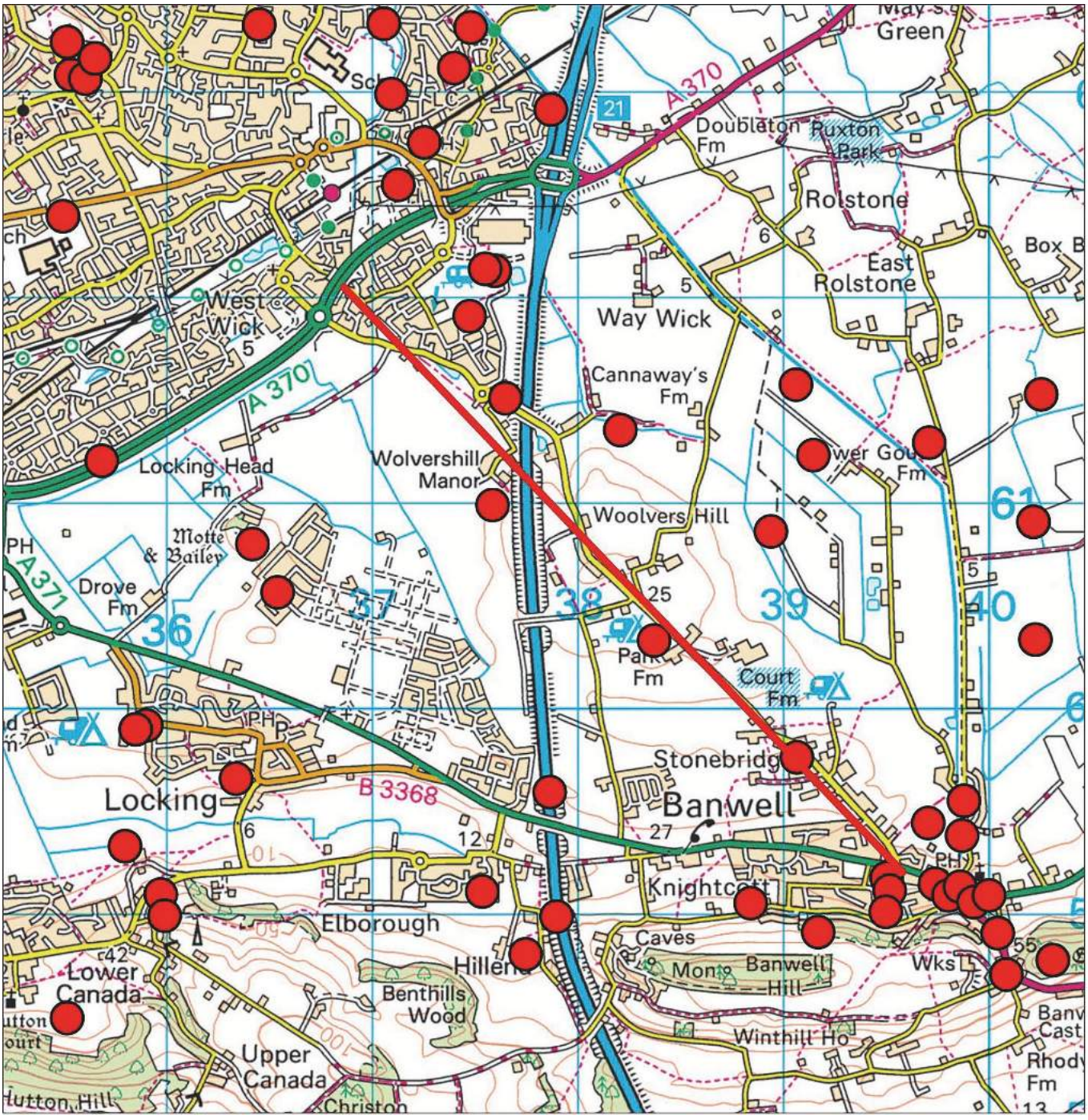

Fig. 4 Map to show Roman finds along route of proposed road from Winthill /Banwell to St Georges. (Data courtesy of Historic Environment Record, North Somerset Council, © Crown copyright and database rights 2021 OS 100063221).

The route (Fig. 3)
Starting from West Street in Banwell (ST 39561 59306), Wolvershill Road provides a substantial straight stretch as far as Wolvers Hill (ST 38190 60694) from which the modern road bends from a North West direction towards the north, descends via a small valley and then crosses the M5. Projecting a continuation of the straight stretch before the bend, at first its line is covered without trace by houses and gardens and is then interrupted by the M5, but beyond this the line is picked up by a length of Summer Lane (ST 37663 61314) proceeding roughly north west. Where this Lane turns at right angles to meet Wolvershill Road, the line continues as a bridleway path, with a ditch on one side and the Blind Yeo Rhyne on the other (ST37626149). At one point, the width measures 5m which seems to be maintained throughout, satisfactory inasmuch as being similar to some known roads such as Akeman Street. At the northern end, Churchlands Way crossing it obliquely brings the bridleway to an end (ST 37137 61783), but the line is continued by a straight unnamed tarmac path accompanied by the Blind Yeo Rhyne on its eastern side (ST 3711 6189). After a while the tarmac path becomes a minor road retaining the direction, in marked contrast to the winding roads of modern suburban development on either side. Reaching the A370, an underpass takes the line beyond this and then continues as Summer Lane and Summer Lane North until further progress is lost at the New Bristol Road (ST 36292 62583). This latter stretch north of the A370 becomes a little less direct where perhaps it follows the requirements of modern housing development, especially an apparent aversion to straight lines.

Conclusion
There seems to be considerable circumstantial evidence for suggesting this as a possible Roman road, particularly in terms of connecting two significant places, its directness, and the environment of Roman finds along its route. It is suggested that the accumulation of evidence builds to a near certainty, but this can only be resolved by archaeological investigation of a part or parts of the line of the postulated Roman road itself.

2: The Iwood Road
The case for this road is that it links the iron mining area of Broadfield Down with areas to the south-west and especially the metalworking small town of Winthill. It has been suggested in the past that the road north of Iwood Manor enters the mining area via Ball Wood (ST 45717 64033) but goes no further. However this seems unlikely for several reasons: firstly, although the road fits the idea of linking two sites of significant economic activity, it is to be expected that an apparently important road would extend to another town. Secondly, if iron ore transportation is a major function, then routes are to be expected in other directions, for example towards Gatcombe (ST 52732 69794) (compare the Weald iron mining area, where roads go south towards the English Channel and north towards London).

The route (Fig. 5)
The first section to be considered comprises a long line of hedgerows south of the B3133 Congresbury to Churchill Road, starting opposite the south end of Iwood Lane (ST 4520 6216) and continuing its line at the south west end until the line of hedgerows ends (ST 4396 6078) amid fields without obvious extension. Possibilities exist further on to the south west such as Duck Street (ST 43435 60352), especially at its northern end and where it becomes a bridleway. This has not yet been explored, but its direction clearly points to Winthill. The long line of hedgerows is a significant feature in the countryside – all the more so because the parish boundary accompanies it all the way, and none of the eight hedgerows meeting it on one side, and nine on the other, continue across it – suggesting that it is an old feature in the countryside. Roughly halfway along the hedgerow bends slightly (ST 4490 6140); the fact that the two arms continue in a straight line from the bend further argues its significance as a feature rather than being random.

The next section around Iwood Manor is complex (see Fig. 6, based upon the 1840s tithe map). The line continues north of the B3133 along Iwood Lane (ST 45224 62153), still accompanied by the parish boundary until the latter bends slightly east away from the lane (ST 45325 62747) and proceeds through a field. The parish boundary descends the slope and on meeting a palaeochannel (ST 45414 62910) of the Congresbury Yeo river, turns abruptly to the east to follow the channel until it meets the current course of the river. It is proposed that the parish boundary follows the line of the Roman road as far as the palaeochannel. There is nothing in the first field now to suggest a road but on the 1840 Tithe map, where the parish boundary diverges from Iwood Lane, it is accompanied for a short distance by the stub of a lane which stops in the field (ST 45345 62759), then is continued by a hedgerow until it meets a hedgerow at right angles which presumably follows the palaeochannel to the east. A later early OS map merely shows a line of trees and hedgerow. Today the parish boundary shows on the map merely as an indicative line of dots in fields. Where the line of the proposed road crosses the palaeochannel would be an excellent place for a bridge or ford. Between this point and the river, a linear depression continues the line (ST 45415 62933). North of the river as it crosses ground through the curtilage of Iwood Manor, Yatton, Congresbury, Claverham and Cleeve Archaeological Research Team (YCCCART) – a North Somerset volunteer group experienced in using geophysics equipment, found, on the line, geophysics indication of two parallel ditches (ST 45479 63050) (Russett 2012). North of the Manor, the old OS map shows a line of trees that merges into the line of Iwood Lane, carrying the line to a minor road (ST 45550 63605) between Congresbury and Wrington.

The next section goes up through the woods of the southern flank of Broadfield Down. Initially, the suggested line is continued on the north side of the Wrington Road by a metalled path (ST 4563 6380) past a quarry, and then bends to the right (north-easterly) to ascend a small shallow valley through Ball Wood (ST 45716 63999). The OS map shows

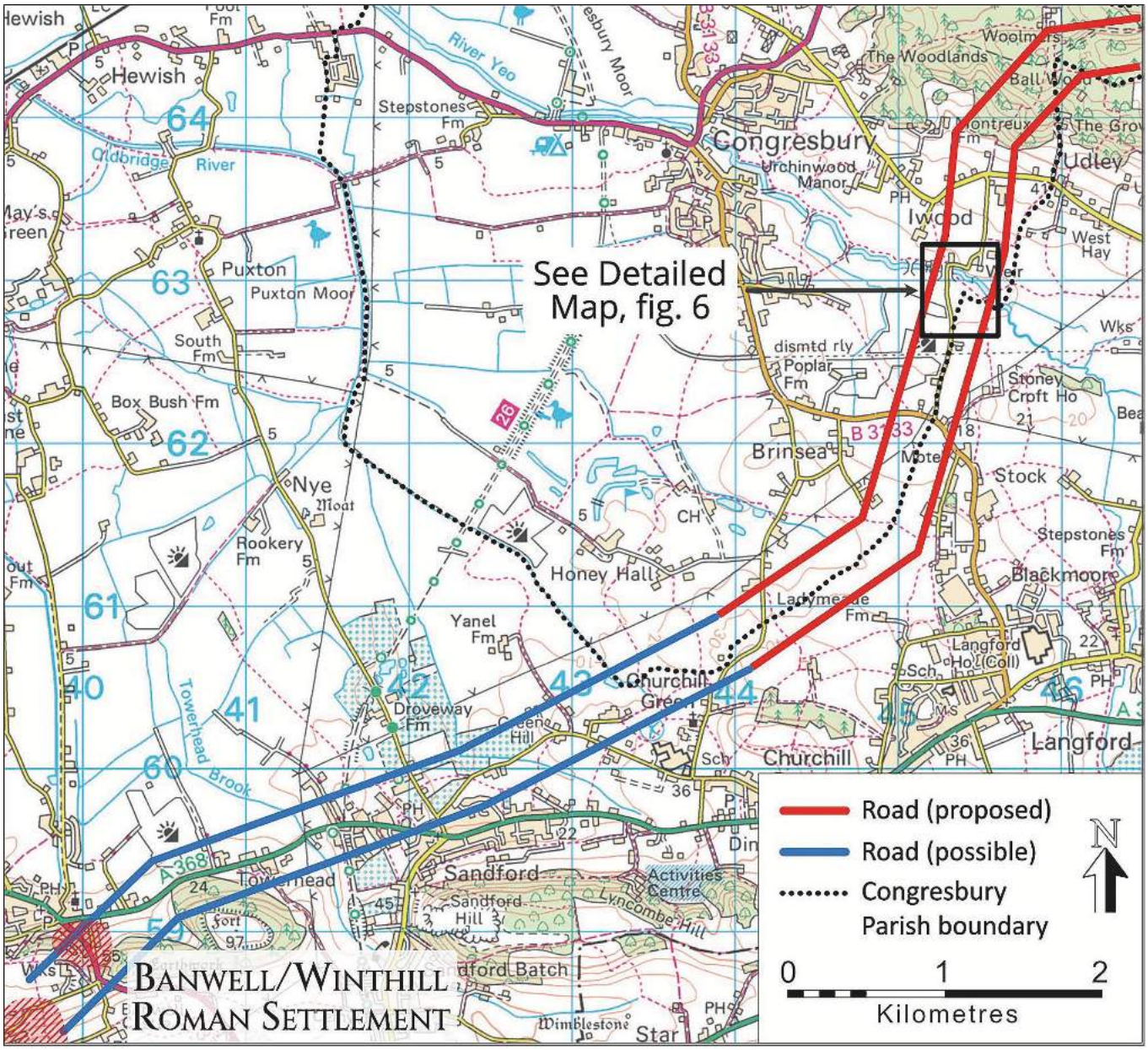

Fig. 5 Suggested route for road: Broadfield Down to Winthill/Banwell via Iwood Manor (referred to as the "Iwood road"). Roads are marked as a pair of lines parallel to the road so as not to mask modern features which may fossilise the Roman line. (© Crown copyright and database rights 2021 OS 100063221).

the public right-of-way on this course as swinging from one side of the valley to the other but the actual footpath proceeds with short sections of straight path, bending slightly but keeping a steady overall direction up the hill, much as you might expect of a Roman road ascending a slope. Near the top, the gradient slackens and the path widens to a long straight track now about 5 m across, fashioned as a terrace along the side of a slight transverse slope. Along the side of the track where it cuts into the slope, a line of stone blocks appears as if to act as a kerb or a revetment (ST 4590 6413). At the top, the track bends slightly to the east and descends the north side of the ridge by a fairly easy oblique route (ST 46110 64452) until it meets a small private tarmac road (ST 46272 64524) leading to a house called Woolmers (ST 45924 64557).

Conclusion

The geophysics results to the north and south of the Iwood Manor building obtained by YCCCART is strong evidence for the existence of this road. Similarly there is a large body of circumstantial indications. Above all it is predicated upon a premise that roads link towns or centres of economic activity; in this case between Winthill and the iron mining on Broadfield Down and further to Gatcombe.

Only one Roman era discovery is known near this road, but it is significant. Just to the west (ST 4522 6320) of the line, around Iwood farm, Roman coins and pottery and geophysics evidence of structures have been found together with a probable track leading to the road just north of Iwood Manor (North Somerset Historic Environment Record

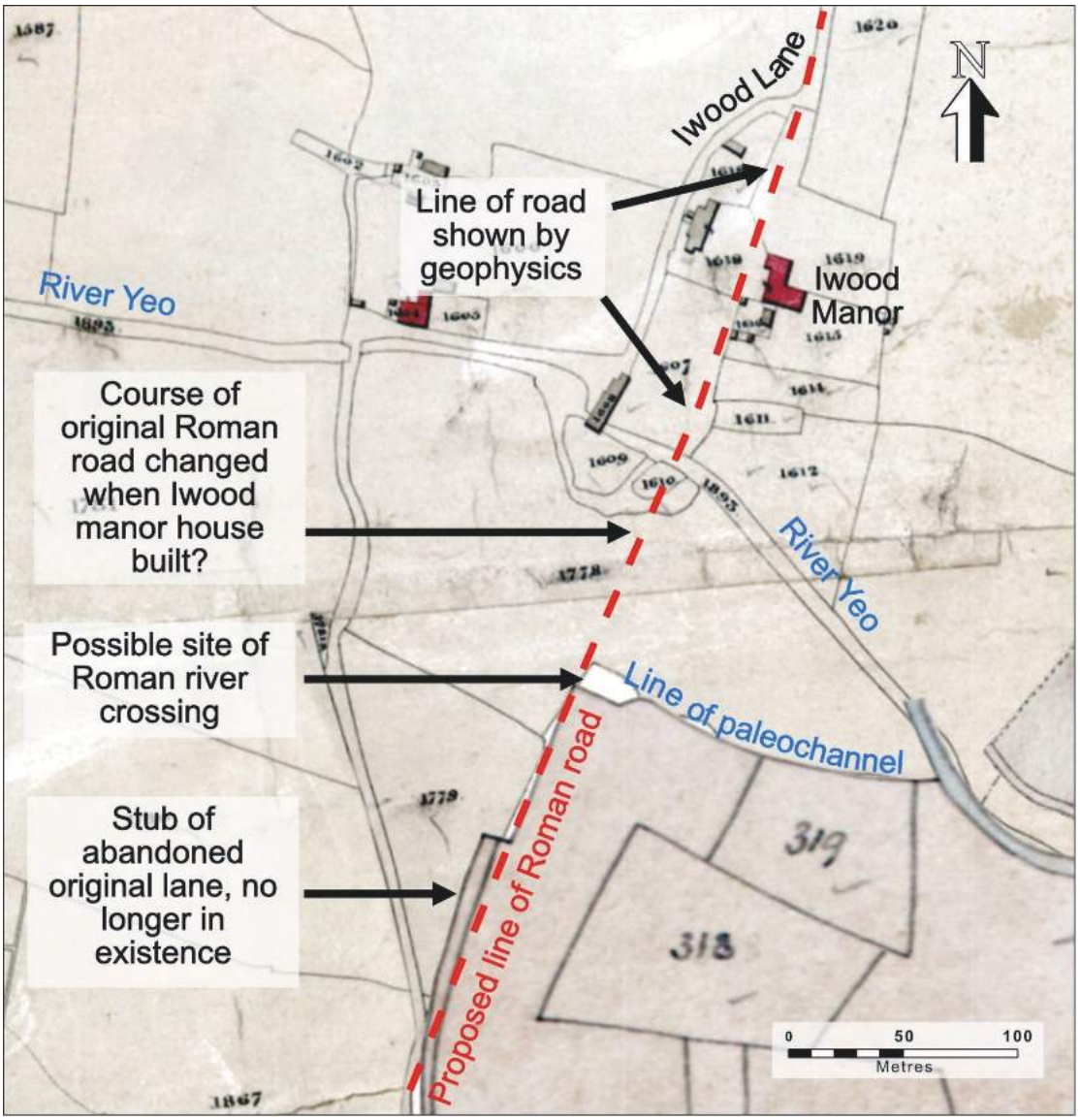

Fig. 6 Area around Iwood Manor from 1840s tithe map, showing course of proposed road from Broadfield Down to Winthill /Banwell. (Tithe map ©South West Heritage Trust).

MNS8994; Bedingfield 1996, 9). A little further to the west are the kilns that produced Congresbury Ware.

Why did the road pass by these sites rather than include them in its course? It may be that the lead working at Winthill began quite early after the Roman invasion (as the Charterhouse exploitation certainly did) and that the iron mining on Broadfield Down also started early and perhaps had been in existence before the arrival of the Romans. A first century link between the two is therefore a reasonable assumption. However the Congresbury Ware industry did not get into its stride until the late 2nd centuryAD.

3: Gatcombe to *Portus Abonae*

This road has long been proposed (e.g. Branigan 1977, 70) and is to be expected as a link between two towns: Sea Mills, Bristol (Portus Abonae) (ST 55191 75866) and Gatcombe, Somerset (Fig. 7).

The proposed course will be described in four sections.

(A). Gatcombe to the top of Ashton Hill (ST 52579 70826).
(B). Ashton Hill to Abbots Leigh (ST 53793 73854).
(C). Abbots Leigh.
(D). Abbots Leigh to the River Avon (ST 54931 75248).

A). Starting from Smisson's proposed gateway in the north-west corner of Gatcombe's walls (ST 52540 69965) (Smisson and Groves 2010, 300), the first appearance is just north of the north-west gate as a terrace about 5m wide at the side of a slope descending from east to west. It is then lost in undergrowth for a few metres, emerging as a clear low agger running to the north (ST 52543 70120), a direction it maintains to the top of Ashton Hill. To the west it falls away to a small valley, whilst on the east, after a small dip at the side of the road presumably delineating a ditch, the ground rises sharply. Further up it becomes a flattish terrace without

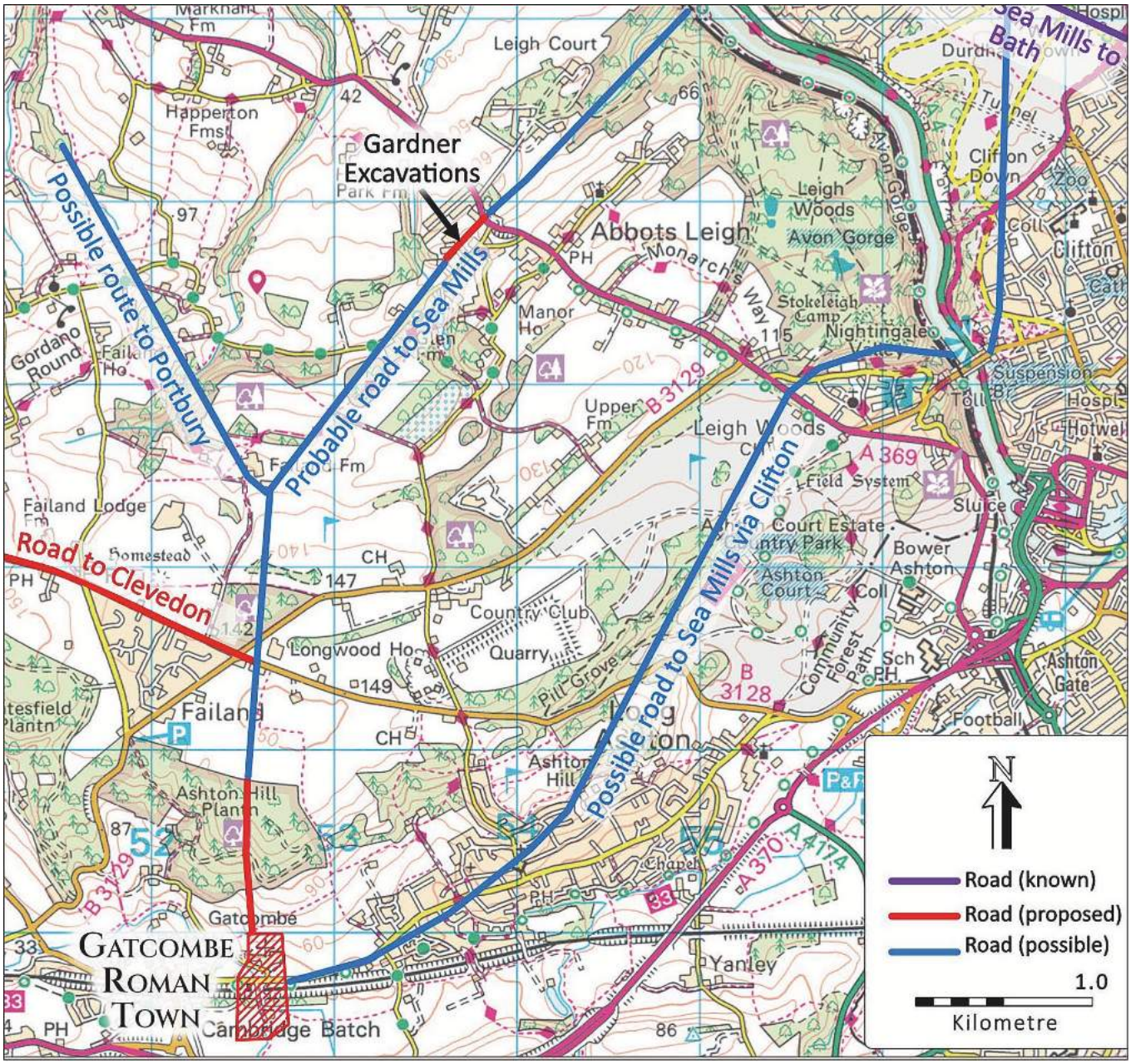

Fig. 7 Proposed road between Gatcombe and Sea Mills. Also, possible roads A) Gatcombe and Sea mills via Clifton,B) possible route to Portbury, C) part of road between Gatcombe and Clevedon. (© Crown copyright and database rights 2021 0S 100063221).

a ditch to the east, then resumes its low agger shape before entering the trees of Ashton Hill Plantation (ST 5252 7025). Immediately within the wood, confused terrain results from quarrying, but a section of agger can be seen on the line. After a short while, a continuous terrace is cut into the side of the small valley. Where it reaches a large modern engineered forestry track (ST 5251 7045) at right angles, it is completely lost, but emerges to the north of it as a low agger immediately to the east of a boundary wall (ST 52562 70451). It proceeds to the top of the hill where the ground flattens and then vanishes in modern playing fields.

B). There are no clues either from old maps or from Google Earth, nor from modern OS as to what happens from the top of Ashton Hill Plantation. If the line is projected to continue northwards it comes to Failand farm (ST 52701 72459). Keith Gardner in the course of his archaeological investigation at Abbots Leigh (see next section) projected the line of the road he had found there back in a south westerly direction as far as Failand farm (ST5267472512) (Gardner 1998, 29). Here it could meet with the northward projecting line from Gatcombe. Between his site on Abbots Leigh and Failand Farm there are three features, a hedge row (ST 5375 7388), a line in a field (ST 5375 7388), a footpath (ST 5295 7269) with gaps in between and all on the same line, the line of the projected Road. It is suggested that coincidence is improbable and that they illustrate the line of the road proposed by Gardner.

C). Keith Gardner's excavations of a Romano British site on the western corner of Sandy Lane and the A369 in Abbots Leigh (ST 53809 73832) revealed a section of Roman road which he proposed was part of a road from Gatcombe to Sea Mills (*ibid*.). The dating was confirmed by Romano British pottery.

(D). Gardner proposed that the road he had excavated in Abbots Leigh went towards the riverbank opposite Sea Mills. His evidence was 'a straight dark line running north east to Abone' (ST 5440 67 5139), visible in an aerial photograph (Historic England, CPE/UK/2472, 9- MAR-1948, frame 3003). However the line does not reach the river bank. Of course it might have been destroyed by ploughing or land management, covered by silt as it approaches the river bank, or become less visible because of underlying geology.

Tim Richards, a member of the North Somerset Roman Road Project, has suggested another possibility after looking carefully at LiDAR images. His line, coming from Abbots Leigh, passes Leigh Court to the south east, proceeds along a level terrace about 4m to 5m wide above Paradise Bottom near the top on its north west side (ST 54452 74780), then descends by an oblique terrace to reach the level of the stream of the Bottom near the River Avon (ST 5490 7525). At this point it is upstream of Sea Mills. Either the road proceeded downstream along the bank until it was opposite the Roman town, or the point where the stream of Paradise Bottom enters the Avon. Perhaps a dock was fashioned for a ferry; since the Avon is tidal at this point; awkward loads could be easily carried up or down the stream according to which way the tide was flowing. Of course there might have been a bridge; the Avon here is tidal but there was one on the tidal Thames at London. If this road was important, connecting Gloucester, Sea Mills, Gatcombe and Ilchester, then a bridge is to be expected.

Conclusion

The first point is the intrinsic likelihood of a road communication between Gatcombe and Sea Mills. Secondly there are two locations of certainty. One is the short stretch immediately north of Gatcombe up the field and through Ashton Hill plantation; although this has not been proved by excavation or geophysics, the combination of aerial photography, fieldwork and LiDAR analysis (Mike Haken 2021, pers comm, 23 March) is conclusive. The other is the excavation by Keith Gardner in Abbots Leigh. Putting these three things together creates a case for certainty.

THE LEGAL AND ADMINISTRATIVE POSITION

In the introduction the phrase 'local metalled road' was used, implying that these were somehow different from 'major roads'. In fact Rome did delineate different classes

Fig. 8 Agger looking south towards Gatcombe, proposed road between Gatcombe and Sea Mills. (Bev Knott).

of roads, as described in *de Condicionibus Agrorum* by the land surveyor Siculus Flaccus (146L, translation in Laurence 1999, 51–61), probably writing in the 2nd century AD:

> *'Public roads* (viae publicae) *constructed at state expense, bear the names of their builders and are under the charge of the managers of roads* (curatores viarum)*, who have the work done by contractors'. (Laurence 199, 59)*

> *'local roads* (viae vicinales)*, which after branching from the main highway* (via publica)*, go off across the country and often lead to other highways* (viae publicae). *They are built and maintained by the pagi (villages/local communities) who usually see that the landowners provide the workforce….over their land'.*

Both of these were public roads open to all. Another class of road, the *via privata* or *diverticulum privatum* (private road), went through private estates and typically connected villas to a *via publica* or *via vicinalis*.

Although there is no evidence that Siculus Flaccus came to Britain or knew about Britain, imperial law applied throughout the Empire so it is reasonable to suppose that the above applied to Britain. The writer of this paper is aware of a via vicinalis in the province, dated 14th of March AD 118 and referring to a location in Kent, using exactly these two words (Tomlin 2018, 258).

The object of the North Somerset Roman road project is to discover *viae vicinales* serving local industrial activity and small towns. They link with the *viae publicae* (a) Bath to Sea Mills Road, (b) Charterhouse to Winchester Road, and perhaps to the Fosse Way (we have not investigated the neighbourhood of the latter as yet)

It is possible that a *Via Publica* may be discovered in North Somerset, most logically from Gatcombe and/or Charterhouse to the south, and north from Charterhouse to Sea Mills.

The way a *via vicinalis* was brought into being derived from the provisions of the *Lex Provinciae* (Law of the Province) which was a legal framework that laid down the administrative regions of a new province and defined relationships between the various organs of government, including the *civitates* and the provincial governor (Crawford 1998). The following example is taken from the *Lex Tarentina* (1139–42 Laurence 1999, 53), a charter for the southern Italian city of *Tarentum* which includes specific arrangements for *viae vicinales* in typically Roman careful legal phrasing and details local responsibilities and powers:

> *'Whatever roads, ditches or drains a quadruumvir, duumvir or aedile* (executive officials) *on behalf of that municipium shall wish publicly to be constructed, to insert, to change, to build or to pave within those boundaries (of the city and territory) which shall belong to the municipium, whatever of it may be done without damage (to private individuals) it is lawful for him to do that.'*

A *Lex Provinciae* can reasonably be expected to have existed for *Britannia*, but one has not survived. It is certain that local administrative districts, the *civitates* (such as the *Dobunni*), were set up, managed by executive officers such as the *aediles or duumvirs* mentioned in the *Lex Tarentina* above) which had an assembly or Council (an *ordo*) comprising members of local wealthy citizens (*Decurions*). Just one record of such an individual survives in Britain, that being of Marcus Ulpius Januarius, *aedile* of *Petuaria*, civitas capital of the *Parisi* (now Brough on Humber in the East Riding of Yorkshire), (Halkon 2013, 133; RIB 707) but this establishes that the system was probably the same across the empire. It is proposed that the *ordo* of the *civitates* as well as having to maintain its lengths of the *viae publicae*, also had powers to instigate *viae vicinales* within their administrative area.

A number of motivations could be in play. Landowners and commercial operators, the kind of people who might be *Decurions*, or associated with them, had an interest in securing good communications to move their produce (the same kind of people who promoted and served on the Turnpike trusts in the 18th century). Also, inasmuch as these people were already buying, literally, into the Roman way of life in terms of clothes, language, buildings, and so forth, it is conceivable that they might wish to emulate, on a local basis, the great roads that strode across the countryside. They might want to curry favour with the powers that be and so protect the privileges to which they had become accustomed. An individual might want to fund part of a road for personal reasons, for example

> *'....cuius mater Geminia Sabina ob honorem eius tria milia passuum ex decreto Decurionum repraesentata pecunia stravit'* (ILS 5878)

> '...his mother Geminia Sabina in his memory (he had died) with prompt payment laid out 3 miles of road ratified by decree of the Decurions.

CONSTRUCTION

How are we to recognise the local Roman roads, the *viae vicinales* of North Somerset? What characteristics should we be looking for? If built by or under the supervision of the Roman army, then we could hope for such classic clues as an agger or ramrod straight stretches. A military origin is highly likely for the major roads on three sides of North Somerset: the Fosse Way, the Bath to Sea Mills Road, and the Charterhouse to Winchester Road: all have these classic major Roman road characteristics. However there is little trace of the military in North Somerset; just a fortlet within the Iron age hillfort of Cadbury Camp near Clevedon (Papworth 2001), and the two small forts at Charterhouse (Aston and Iles 1986, 53) and Banwell (Historic England 2021d), both near lead mining and probably with particular regard to silver extraction, and these did not last long (the Charterhouse fort probably became a secure storage compound). In any case all military establishments throughout the Southwest were decommissioned and abandoned within 30 or 40 years of the original invasion landing in AD 43 (Bishop 2014, 57). A complication comes from a suggestion by Keith Gardner of an imperial *pagus* in the area (Gardner 2004). The author has

no knowledge of Imperial estates elsewhere in the locality, but it is conceivable that there could be some military input to communications especially around the exploitation of natural resources. However, it seems unlikely that the army would expend resources on a short haul local basically commercial network when the advance north and into Wales required ever more forts and new fortresses and the long-range strategic roads to serve them. So the assumption will be made that the local roads of North Somerset were constructed as *viae vicinales* to serve local commercial needs. The next question is what might this look like on the ground? If the local *civitas* was paying for this for their own economic transportation interests, a road is to be expected that is engineered to take wheeled traffic as well as ridden mounts or pedestrian traffic.

The first requirement is drainage ditches on both sides, especially needful in a rainy part of England, and a surface between them rising up from each side to a central higher level to facilitate run-off (but this does not mean lofty aggers which are more the result of frequent rebuilds than anything else).

The next requirement is a durable surface; there is no point in investing in the rest of the engineering if dirt becomes mud every time it rains, with ruts breaking up the surface. Metalled minor roads that are not long-range state roads have been found e.g. at 'Moreton on Lugg, Herefordshire, a metalled track way or minor road links the site to Watling Street' (Brindle 2016, 299), and we have some examples locally in North Somerset: the metalled track among the pottery kilns east of Venus Street, Congresbury; the metalled track leading Northwest from Banwell Villa (probably a diverticulum); a cobbled trackway (Woodside Avenue, Hutton, MNS798); and a possible metalled track (west end of Tickenham, MNS512)

Next, directness between destination endpoints, which does not necessarily imply very long straight stretches, although these can certainly occur wherever topography is suitable; after all getting to your destination as quickly as possible is usually a transportation virtue, and animal drawn vehicles negotiate bends less easily than modern vehicles.

Next, width. Widths of the metalled area of *viae publicae* vary widely, as does the depth of metalling. The average width for Watling Street is 10.1m, whereas for the Fosse Way it is half that at 5.3 m, while the average from 488 excavated sites split the difference to just under 7m (Davies 2002, 75). For *viae vicinales* this paper expects them to be at least wide enough for a wagon drawn by two animals; they could be oxen, needing quite a space. This would seem to be 3–4m, and for two vehicles to pass (a requirement for *viae publicae,* Laurence 1999, 58; Chevallier 1976,16) 5m at least is necessary. Therefore from 3m to 5m for *viae vicinales* is expected.

Finally, evidence of deliberate engineering, such as terraces, zigzags, cuttings. Roads between the end of the Roman era and the beginning of turnpikes did not routinely exhibit these characteristics.

Who might have surveyed, planned, and managed the construction of *viae vicinales*? It is hard to imagine that skilled legionary engineers were routinely deployed for this purpose in the peaceful south far from their bases. Roman practice tended towards outsourcing and in Italy contractors were normally hired for road working (Laurence 1999, 40, 41, 46). It is conceivable that in the early days retired legionary experts might come from the *Coloniae* of Colchester and then Gloucester. In time experienced professional contractors were needed, not just for the routine maintenance and occasional reconstruction of the *viae publicae*, but also for the networks of *viae vicinales*. Proper roads, as opposed to trackways, require professional and skilled expertise

DISCUSSION

This paper is an idea rather than a conclusion. It brings together a number of contributing propositions. These, taken together, support the idea of a local network of sub strategic roads, *viae vicinales*, which served the needs, especially economic, of a local area, specifically in this case the north of Somerset. The following comments support either the notion of *viae vicinales*, local roads, or their connection with local proposed economic needs.

There was sufficient economic activity to warrant a transportation network. Two major industries, lead and salt, certainly produced more than necessary for local consumption. Broadfield Down iron, Congresbury pottery, and Dundry stone ,all provide examples of specialised outputs supplying more than a very localised area. How much agriculture contributed to the need for transportation is unclear. To judge by the Row of Ashes farmstead (Fowler 1970) it was possible to make a good living and so arguably produce a surplus, as presumably also did the villas. It is a reasonable speculation that industrial workers would need food supply. No field systems have been found near Charterhouse so provision was necessary.

These activities were in some cases definitely associated with small towns. Small towns in Roman Britain usually involved industrial and commercial activity and rarely contained the non-commercial public buildings typical of the major cities. It is a guiding principle of this project that roads go to and so connect centres of population and sites of economic activity. Two proposed small towns, Winthill and Gatcombe, and one definite, Charterhouse, existed in North Somerset. All of them, as a crude guide, were larger in terms of hectares than the walled area of Bath (10 ha, Cunliffe et al 1985, 9–11) and similar to the regionally important towns of Ilchester (14 ha, Wacher 1975, 408) and Caerwent (18 ha, Wacher 1975, 382) all of which are very well served by transport links.

There has in the past often been the idea that all Roman roads were primarily constructed and used by the military and by the state apparatus e.g. the *cursus publicus* (the state communications service) rather than significant amounts of commercial traffic. However, it seems unlikely that the military had anything to do with a purely local network, with the area's three small forts going out of commission in the AD70s when all military occupation in the Southwest came to an end and the troops moved elsewhere, apparently never

to return. The popular idea of legionaries tramping along Roman roads, rather than commercial traffic would not have presented itself in this part of the country. Military expertise for planning and managing road construction could no doubt be had by employing retired officers, especially from the *Colonia* at Gloucester. However in time it seems much more likely that roadwork maintenance was undertaken by commercial contractors as was the case in Italy (Laurence 1999, 46); outsourcing was a common trait of Roman administration. Skilled workers or slaves would be a much better bet than occasional voluntary or forced unskilled labour: roadwork required expertise. Maintenance would provide regular work given such a plethora of roads. And maintenance was needed as demonstrated by examples such as the Fosse Way at Clandown where multiple layers were buried, including buried, rutted and worn top surface levels, showing the need for repeated repair including complete rebuilds (Davenport 1990, 131–133). This also points to the volume of traffic using these roads, especially commercial traffic which could entail loads of significant weight.

It is suggested that the creation and maintenance of a local road network was in the interest of the local well-to-do. Not only did Rome outsource roadwork, it also outsourced local government, allowing and encouraging local native elites to run the local area (the *civitas*) in exchange for assuming local responsibilities and devoting some of their wealth towards civic projects. The Tarentine Charter shows us that this delegation could include local roads, *viae vicinales*. There is very little evidence of the activity of the councils and their executive officers (*ordines* and *duumviri*) in *Britannia*, but it is a reasonable proposition to posit that a local road such as the one suggested between Saint Georges and Winthill came under the authority of the *Ordo* and *Decurions* of the *Civitas* and would not be the concern of the province governor, unless things went wrong, especially the management of finance. Since the *Ordo* would comprise the well to do, local landowners, prosperous farmers, and owners of commercial enterprises, it is reasonable to suppose that good communications were in their interest (much as was true of the Turnpike Trusts of the 18th century). And helping to fund them fell within the culture of funding of civic projects by the rich which was expected of them and which provided opportunities for self-promotion (for involvement of local *duumviri* and *ordines* in local roads, see Laurence 1999, 52–4) and perhaps pleasure and pride in serving their community. Certainly pride in the provision of local roads existed in Italy (Laurence 1999, 62).

So far in this discussion the general terms ‘communications’ and ‘transportation’ have often been used, with a clear emphasis on roads. However it would be a mistake to ignore the part played by water transport, whether by river or by sea. There are no major rivers in North Somerset, but three, the Congresbury Yeo, the Banwelland the Axe, could have taken light river traffic. The Yeo might have carried Congresbury Ware and other local products. Wemberham Villa was well-placed for river traffic and the Congresbury pottery kilns were situated near the river with the recently discovered trackway apparently directed towards it (Wessex Archaeology 2021b). Lead might have been taken down the Cheddar Gorge to be loaded on barges on the river Axe, although a destination is not clear as South Wales has plenty of lead including galena (Smith 2017, 194), and up the Severn does not seem viable as again lead was mined in the Midlands (ibid.). Of course it might have gone up the River Avon to Bath but strangely, Congresbury Ware did not, also not appearing at Portishead or Sea Mills. Congresbury Ware did get to Crandon Bridge, a Roman port on the River Parrett but not upriver to Ilchester (Rippon 2008, 51).

Obviously some products had to be carried by road; Charterhouse and Priddy lead, and Dundry Stone came from locations situated on hills. And the most feasible way for Broadfield Down iron to arrive at the metalworks in Gatcombe was by road: presumably Broadfield Down iron ore travelled to Winthill by the Iwood road. Although useful for some cargoes and some routes, rivers did not always conveniently go where trade needed to go, either at all or by circuitous routes. Generally, well-made all-weather roads proved more reliable and flexible when rivers suffered flood or drought, and the sea could be unkind to traffic. Roads therefore have had an important part to play.

A problem with the notion of road transportation as economically viable is its cost. Cioffi even went so far as to talk of ‘prohibitive cost’ (Cioffi 2016, see section titled ‘getting connected: Roman infrastructure and Roman connectivity’). If it were to be the case that cost made road transportation prohibitive, then local roads would not have been needed for local freight. It is often still an assumption, presented as if no justification is needed, that cost killed significant transportation of freight by road. How then to explain the *Vindolanda* letter talking of a 100km road freight journey from Catterick (RIBOnline 2021), or the 70km from the La Graufesenque potteries of south Gaul to the nearest rivers? (Lewit 2013, 117; also see p116 ‘in spite of emphasis by many modern scholars on the importance of river routes to military markets, pottery operators seem to have been surprisingly oblivious to this supposed advantage’). Laurence accepts that carriage of goods by road is much more expensive than by water but argues that profitability, not cost, is the key factor. If people can afford and are willing to pay the cost of a service, then there will be nothing ‘prohibitive’ about providing that service (Laurence 1999, 95 and chapter 7 generally) and the same applies to goods movement now as then. Part of the extra cost of land transport will be defrayed by its much greater reliability, convenience, reach, and flexibility (again, as is the case today). Laurence compares early 18th century Britain when land transport using draught animals also cost a great deal more than water transport yet saw an explosion in construction and use of new roads, spurred on by landowners and industrialists wanting to move their products in an efficient manner (Laurence 1999,100)

It is sometimes objected that Roman road transport was too slow and cumbersome to be of much economic value. This is to confuse the lumbering, solid wooden-wheeled, rough, oxen- drawn carts used in the fields and countryside

Fig. 9 Fragment of a sarcophagus lid from Lazio, Rome, showing the transport of wine into a town using an oxcart with unspoked wheels. ©The Trustees of the British Museum.

tracks (See Fig. 9) with freight wagons running on spoked iron-rimmed wheels, pulled by horses and mules, sometimes sporting covered tops, and differentiated by task (See Fig. 10). Speed of the latter is unknown; virtually all data refer to passenger traffic, for example a *raeda* (a passenger vehicle) could cover 100 miles in a day on good roads (Suetonius, *Div. Jul. 57*). In Italy passenger traffic was so common that Guilds of cisiarii (passenger vehicle drivers) have been evidenced widely. The one detailed freight costing from rural Italy in 160 BC (Cato, *de agricultura 22.3*, discussed in Lawrence 1999, 95–7) does not help; it gives a speed of 8 miles per day but describes an abnormal load (a dismantled mill), drawn by oxen on agricultural carts and not necessarily on made roads. This example has strangely been made a main source for calculating freight wagon speed and costs (eg Yeo 1946).

Laurence (1999, 147) tells us that a system of agricultural trade over long distance can be seen to be embedded in the literature and was a key reason for the improvement of the road surface, but it must always be remembered that Laurence is talking about Italy; it is reasonable to propose that at least some of what he says can be extrapolated for provincial *Britannia*, but surely not at the same level and sophistication as in Italy. An interesting example of the possibilities from modern times is afforded by the regular traffic of 40 ton loads of borax drawn by a 20-mule team over 165 miles for 10 days in the late 19th century in the USA; it was a costly operation but profitable because the borax was expensive and rare, giving a good example that profitability is the key factor, not simply cost (US Borax 2021). A good example, demonstrating long-distance heavy-load carriage from the Roman world, but without cost data or transport details, is provided by massive stone single-piece columns of rare stone transported over scores of kilometres from remote quarries in the eastern Egyptian desert (Pearson 2006, 80).

Another problematic issue for the commercial use of Roman roads derives from the number of steep gradients. The author is not aware of evidence suggesting how this issue was addressed in Roman times, but it does not seem credible that the idea of enlarging the haulage teams did not occur to anyone at the time. It is what was done in the Turnpike era and is still done today with locomotives on challenging railway gradients. On busy roads, no doubt a *mutatio* (a draught animal provision station) was at hand to turn a useful profit for the owners. Certainly there were challenging slopes on Roman roads, for example Birdlip Hill on the Cirencester to Gloucester Road at the Cotswold edge, which remained in use during Turnpike times and did not deter traffic despite gradients of one in eight and briefly one in five (Davies 2002, 81).

Besides freight traffic, other users involving an economic aspect could be seen travelling on these roads. Certainly the Imperial post (although perhaps not so much on minor roads) and the well-to-do travelling in their carriages to their estates or to town. Chevallier says the Metamorphoses of Apuleius (admittedly a work of fiction) suggests a very mobile society;the hero, Lucius, is made to say that he is proceeding to *Thessalia* (Northern Greece) on business and is trading in honey, cheese, and other foodstuffs used by innkeepers all over *Thessalia* (Chevallier 1976, 22–24). This chimes with the salesmen sent out along the 18th century turnpike

Fig. 10 Part of a 2nd century AD relief from a Roman villa site in Freiberg, Germany, showing a wagon drawn by 3 horses carrying an item sometimes interpreted as a wicker chair or a stone block. © Landesmuseum Württemberg, ©The Trustees of the British Museum.

roads to promote and sell Josiah Wedgwood's products in an era when modern advertising methods of commercial products by literature, broadcast media and internet were not available (Pawson 1979, 96); the same considerations applied in the Roman world.

Chevallier suggests a whole throng of road users (Chevalier 1976, 202–3): business travellers, itinerant craftsmen, gangs of seasonal agricultural workers, theatre performers, the sick going to healing places (such as Bath), pilgrims to sacred places (such as Pagans Hill, Wiltshire), road workers, even tourists such as Pliny the elder pursuing scientific observation (Pliny, Natural History) or Pausanias researching his description of interesting places (Pausanias, Description of Greece). All these users implied economic activity; even mere tourists required inns, and often transportation with its servicing costs. An inscription from Aesernia (Italy) nicely illustrates this point: *copo, computemus. habes vini sextarium unum, panem, assem unum; pulmentar asses duos. Convenit. Puellam asses octo. Et hoc convenit. Faenum mulo , asses duo. Iste mulus me ad factum dabit*. 'Innkeeper, let us settle up. One measure of wine, and bread, one ass, stew, two asses. Agreed. The girl eight asses. That too is agreed. Fodder for the mule, two asses. The animal will take me to my destination.'

CONCLUSION

Taking into consideration the apparent quality of construction and the potential level of economic activity of the North Somerset area, it seems reasonable to propose that the area was served by a network of local roads, viae vicinales, as well as waterborne transportation where appropriate.

APPENDIX

4: Congresbury to Broadfield Down

The case for this road is that it led from one area of economic activity in Congresbury (ST 44048 63535) to another on Broadfield Down and then on towards Gatcombe (Fig. 11). On the Down was iron mining; at Congresbury, various works including a pottery described by Wessex Archaeology as 'large scale industrial activity' (2021b), with geophysics indicating many kilns widespread around Venus Street, Congresbury (ST 44605 62854). There is also evidence for an iron smelter, and a corn dryer (ST 44557 64016). Clearly workers were needed for these activities although where they lived, or even whether there was a settlement, is not known. It is nevertheless generally accepted that there was a settlement somewhere in the Congresbury area. The road may have gone no further than Broadfield Down, but it is suggested that after being joined by the Iwood Road it continued in an approximately north of east direction to Gatcombe.

The route (Fig. 11)

The postulated route follows a track and a small private tarmac road. An overall East-West direction is maintained but the course is somewhat winding. It may be that in later years its importance declined and, as happens with Roman roads in such circumstances, blockages were simply circumvented; one such bend can be seen to have abandoned the straight section which can still be discerned (ST 45382 64464).

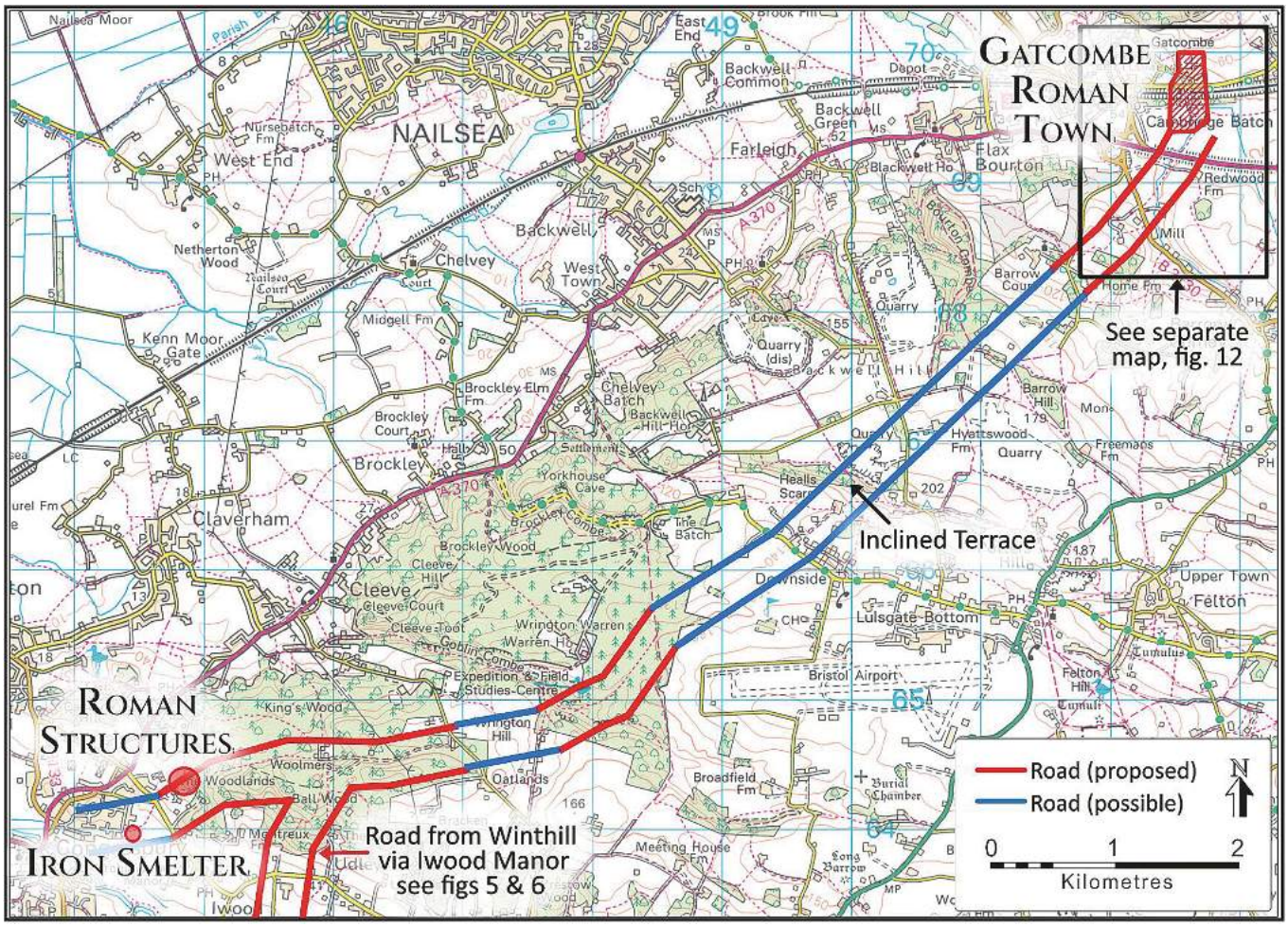

Fig. 11 Proposed road from Congresbury to Broadfield Down and on to Gatcombe. Roads are marked as a pair of lines either side of the road so as not to mask modern features which may fossilise the Roman line. (© Crown copyright and database rights 2021 OS 100063221).

Starting from the Congresbury end and near where an iron smelter was discovered recently near Cobthorn Way (Nicholls 2016), it begins at the Wrington Road next to and winding around an establishment named Woodlands (ST 44715 64217) (where Roman remains have been found) whose building may have distorted the course of the track at its start. The biggest bend in its course (towards the north) (ST 45622 64507) comes where the track avoids the head of a steep sided gully. When it arrives at a house called Woolmers, the track becomes a minor tarmac lane and continues as far as the junction with the road coming up from Iwood to the south

5: Broadfield Down to Gatcombe

At ST 45924 64557 the road previously described above (the Congresbury to Broadfield Down Road) is met by the road coming up from the south from Iwood and ultimately from Winthill. A further route (Fig. 11) from this junction as far as Gatcombe to the north-east is very likely for two reasons. Firstly, a connection between the centres at Winthill and at Congresbury and the centre at the small town of Gatcombe is to be expected. Secondly, a route between Broadfield Down with its iron mining activities and Gatcombe with its iron smelting and smithing works seems obvious.

This route will be described in two sections:

1. From the junction described above in the previous paragraph as far as the eastern edge of Wrington Warren.

2. From the eastern edge of Wrington Warren as far as Gatcombe.

Section 1, as far as Wrington Warren

From the junction, the proposed route follows the line of the minor tarmac road as far as Cleeve Hill Road (ST 46950 64631) where, as with the far end, its original course might have been distorted by subsequent buildings. It is not a classic ridge track, keeping just north of a steep sided ridge which rises up to 50m above it (ST 46515 64395) throughout its length. No evidence of engineering was observed.

The proposed continuation east of Cleeve Hill road is problematic, but possible. The writer's eye was caught on the modern OS map by a footpath and right-of-way starting a little north of Wrington Hill Farm (ST 47633 64740) and proceeding in two straight legs joined by a shallow angled bend to the edge of the woods of Wrington Warren, some way to the north of Abspit Pond (ST 48499 65478). The western end of this path (just north of the farm) is on the same line as

the eastern end of the Woolmers Road, but the two ends are separated by a small wood and several fields; such gaps (in a straight alignment) are always suggestive of a Roman road but of course not conclusive. No trace has been found in this intervening gap. The route starts at an apparently awkward right angle to the line but is in fact negotiating, by zigzag, a side combe coming up from Goblin Combe to the farm. The section sloping down the west side of this side combe (ST 47578 64779) is wide enough for vehicular traffic and is clearly engineered as a descending terrace, yet seems to serve no current purpose; at the top of the slope it simply abuts the fence of the field which has a stile at this point (for a right-of-way from a different direction) but without any trace of a gate or entrance way for the terraced track. Having executed its sweep across the combe (its bottom end is blocked with vegetation so is out of use now) it climbs up the opposite side along an engineered ascending terrace (which is very possibly a modern forestry track) (ST 47664 64794).

A right-of-way leaves this track at nearly right angles (perhaps the top of the eastern side of a zigzag to address its passage across the gully). It then proceeds up a slope north-east through trees (ST 47799 64827) but along not the faintest trace of a path, so a direction has to be guessed at. At first the team guessed wrongly because it led to the lip of a precipitously steep slope plunging down into Goblin Combe, arriving at a point which was clearly off the line. However, further to the east along the lip, the downward slope becomes less steep and here a post signalled the right-of-way (ST 47858 64856) which was immediately lost in dense undergrowth. However it was possible to see that at the bottom it crosses Goblin Combe proceeding up a side combe (ST 48011 64922) and continuing along the north east line of the right-of-way. Where the combe comes to a head and the ground levels out, the path continues straight north east although while the straightness is encouraging, it is hardly decisive as an indicator since other tracks in the vicinity are also perfectly straight, created as part of woodland management. The virtue of its direction was that it was heading generally for Gatcombe on a line that passes above the heads of various Combes cutting down into Broadfield Down from the north, such as Bourton, Chester, and Taps, and crossing Brockley Combe where its precipitous slopes to the north have softened somewhat. A triangle of woodland sticking out towards the airport offered hope for visible continuation (ST 48753 65589) but nothing decisive has been found.

Section 2, Wrington Warren to Gatcombe

From the eastern edge of Wrington Warren as far as Barrow Court, no further trace or indication of a continuation towards Gatcombe can be seen in the fields, whether by paths, rights of way, hedge lines, tracks, modern roads, old parish boundaries, edges of woods, or other indicators. The fields seem regularly set out as a result of Enclosures.

While there are no general indications of a route across this stretch, a notional line proceeding in a rough north-easterly direction towards Gatcombe (between the eastern edge of Wrington Warren and Barrow Court) is crossed by paths and an investigation of one shows some hope.

At Edson's Farm (ST 49935 64557), on the North Somerset 1840 pre-enclosure map, a minor road (long since vanished) is shown proceeding from just north east of the farm up the side of the hedge row. Dense undergrowth spreading into the field makes investigation difficult, but near the farm and to the west of the hedge row, a shallow hollow-way can be seen, about 5m across. A little further up the field, the hollow-way can again be seen. At the top of the field, the hollow way proceeds a short way through woodland until it meets at right angles a well-engineered ascending terrace (ST 50011 66652) climbing the side of Heall's Scars, the northern slope of Brockley Combe. Following this terrace up the slope, at the top it meets the notional line leading north east towards Barrow Court (where a more definite proposal starts). It is certainly an old road since there is no trace of it on the Tithe map or on any subsequent map and since it is on the notional line between the eastern edge of Wrington Warren and Barrow Court, it could well be a trace of the road.

At Barrow Court, just opposite its entrance from a minor road, a footpath begins (ST 51673 68354) and extends on a reasonably straight alignment as far as the proposed south gate of Gatcombe (Fig. 12). The proposed route crosses a field in a roughly north easterly direction, until it enters the next field along a right-of-way via an odd zigzag (ST 51896 68500). This must be a modern change, perhaps to avoid the corner of a new copse, because the 19th-century Ordnance Survey map shows a very straight course into and crossing the next field. Here, sadly, a metalled track has been removed by the farmer (information from the owner of the old rectory at the edge of the field) although we cannot be sure that it was actually on the proposed line. At the far end of this latter field, the line enters private property at Vicarage cottage (ST 52063 68609) and so the footpath does not continue on the line. However the footpath resumes on the same alignment on the far side of the private property, just across the B3130 (ST 52230 687961). The footpath continues the alignment, but without any evidence of engineering, across the field until it meets the river Land Yeo. On the far side, the line carries on, crossed by a recently laid pipeline at right angles (ST52391 68969). Looking up the pre-works geophysical survey report, a faint piece of 'possible archaeology' with a 'trending line' in the right direction for our line was found at the intersection of our hoped for road and the pipeline (Wessex Archaeology 2016). Through this field no vestige of a road can be seen but at the far end, and on the line, a hump is visible in the hedgerow which the proposed line meets at right angles. On the far side of this hedgerow, again at right angles to our proposed line, a minor tarmac lane leads towards Redwood Farm. On the verges on each side of this lane, and on our proposed line (ST 52435 69104), humps can be seen cut through by the lane, strongly suggesting an interrupted agger (Fig.13). The footpath and our proposed line continue northeast on the far side of this lane until it crosses Colliter's Way (A4714), on the far side of which a possible flattened agger can just be discerned (ST 52579 69276). The footpath and our proposed line continue on a straight north-easterly alignment until meeting the proposed

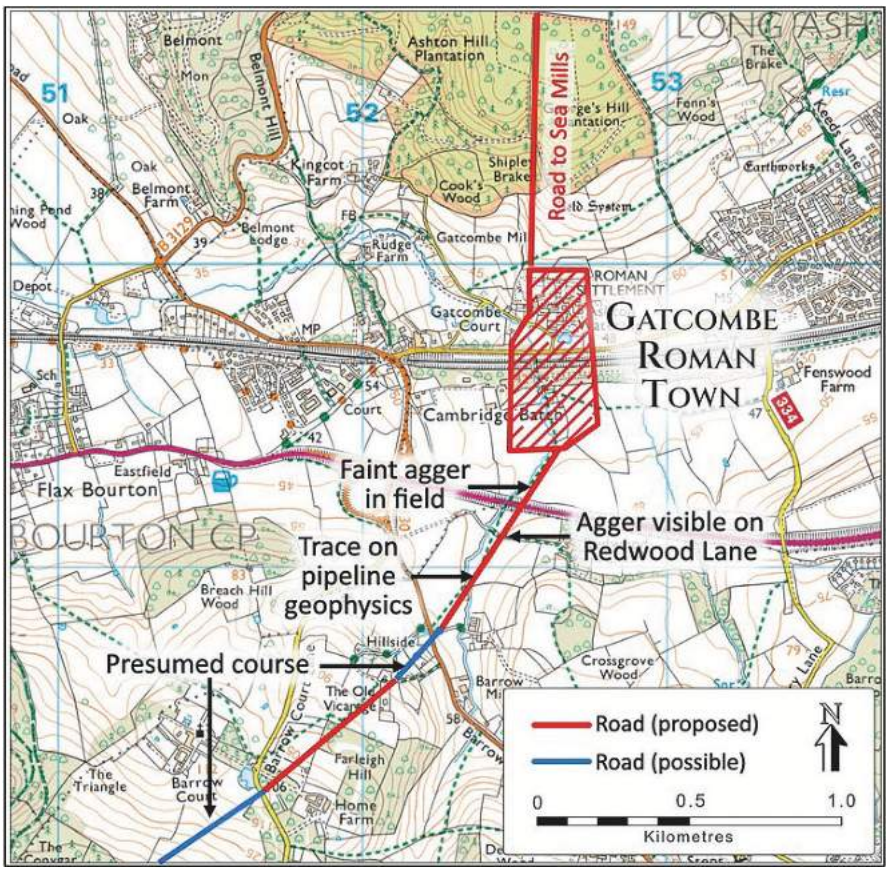

Fig. 12 First section of proposed road south-west from Gatcombe. (© Crown copyright and database rights 0S 100063221).

Fig. 13 Conjectured agger where Redwood Lane cuts through mounds on either side at right angles to the proposed course of Road Southwest from Gatcombe. (Bev Knott)

south gate of Gatcombe. This south gate and a possible road alignment proceeding south-west from it along the footpath had been proposed by Smisson (Smisson and Groves 2009, 298) as a result of their geophysical survey of the Roman town's south wall.

6: The Charterhouse to Winthill Road.

The case

A road is definitely to be expected between these two towns, both as towns and as centres of the lead industry. However there has never been certainty either as to the route or even its existence (Margary doubted it). The argument for its existence has centred on the idea that there ought to be a road between Charterhouse and the Bristol Channel to enable lead to be exported by sea. The most probable direction is towards the Axe estuary in the Uphill area (ST 31506 57902), yet nothing comparable to the port at Sea Mills has been found here, or indeed anything else. To complicate matters, a settlement has been discovered by Wessex Archaeology (Simon Flaherty 2019, pers comm 10 November) at the coast end of the top of Bleadon Hill (ST 33298 58061), much too far up the hill to be thought a port, yet some scattered indications of a road seem to lead towards it from the Winthill direction. In any case, the excavation has not yet been published so it is unclear how significant this settlement is. Generally, this paper takes the view that the importance of water transportation, either by sea or river, has been given greater prominence than is warranted by the evidence, and no proper commercial and economic model rigorously constructed. Therefore examining a route for Winthill to the coast has not seemed to be a priority, whereas the route for Winthill Hill to Charterhouse most certainly is.

The route (Fig. 14)

The investigations can be divided into:

Section 1: Charterhouse to Tyning's Farm
Section 2: Tynings Farm vicinity
Section 3: Rowberrow Forest to Lipiatt Lane
Section 4: Lippiatt Lane to Sandford Road
Section 5: Sandford Road to Winthill

Section 1. LiDAR shows a very suggestive line leaving the western edge (ST 50101 56123) of the Roman town at Charterhouse and making for the wood shaving factory (ST 49689 56041), which interrupts the feature. It reappears on the western side of the factory and closes diagonally with the Charterhouse Village to Tynings Farm road along a hedgerow (ST 49430 56110). When this hedgerow reaches the road, an agger-like feature can be seen a few metres to the north of and parallel with the road (ST 49210 56068). What happens next is less clear. An early ordnance survey map shows the line of the road bending back to the north and crossing a stream upstream from the modern bridge, but this alignment is not repeated on later maps and no evidence is to hand to verify it. Vince Russett has examined the line of the stream for signs of an engineered crossing but in vain, so proposes that the line joins the modern road and crosses the stream at the same place (ST 48939 56058), then following the same line as the modern road until Tynings Farm is approached (Vince Russett 2018, pers comm 18 September).

Section 2. It is generally agreed that the line leaves the road before it gets to Tynings Farm and passes the farm a short way to the north. Both the 1761 map of Charterhouse and a hollow-way visible as late as the 1980s indicate a route passing about 50m north of Tynings Farm (ST 47053 56648)

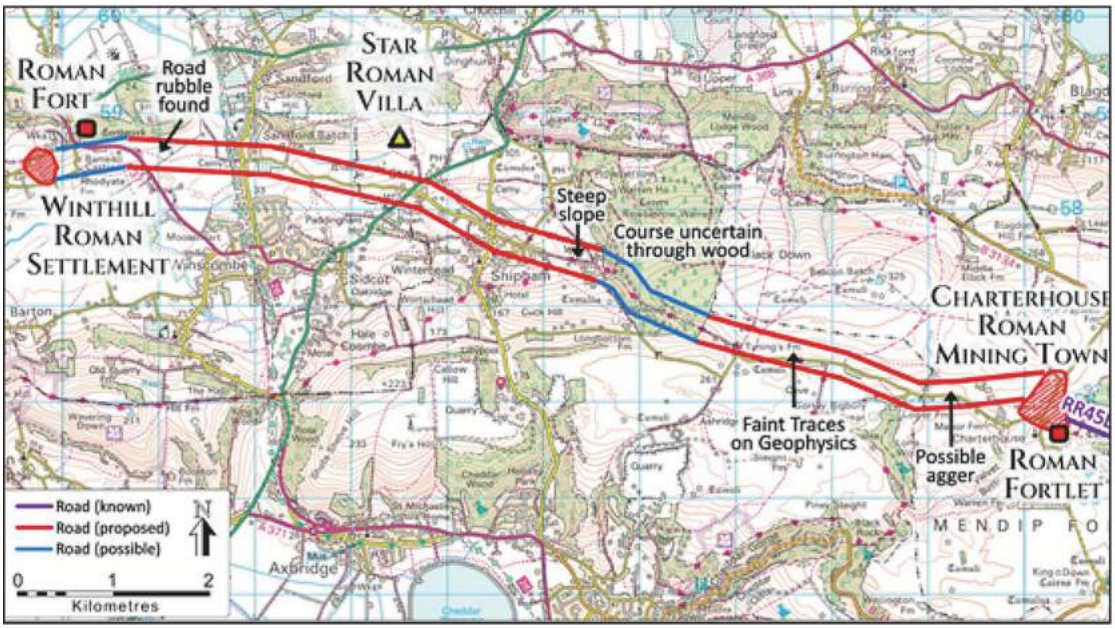

Fig. 14 Proposed road from Charterhouse Roman town to Winthill. Roads are marked as a pair of lines either side of the road so as not to mask modern features which may fossilise the Roman line. (© Crown copyright and database rights 2021 0S 100063221).

and running down the hill towards the current gate into Rowberrow forest. The road was called 'Magnum iter' and the 'Sewey' (sea way) in the late 12th century, and this is the first place since leaving Charterhouse that the sea is indeed visible. Recent YCCCART work around Tynings Farm has shown a slight but convincing agger on the projected line (V Russett 2018, pers comm 18 September)

Section 3. The precise route is unclear from the field around the north of Tynings Farm down to the stream of Rowberrow Bottom through the trees. There is a well-made track leading down towards the stream, though whether this is the line of the road cannot easily be determined. After a while the track becomes a path leading down to and along the water's edge. This appears to have been wider in the past with its edges overgrown, so might be the line of the road. The stream (ST 45747 57314) is easily forded, after which a track ascends quite steeply (but not too steep for wagon and draught animals) (Vince Russett 2018, pers comm 17 July) until it reaches Lippiatt Lane at the top of the slope (ST 4553557419). The ascending track has a number of quite large stones embedded, which could be remains of a foundation layer of the road. Lippiatt Lane continues in a reasonably straight line and changes name to North Down Lane, until it meets New Road, the main north-south road through Shipham (ST 44472 57740).

Section 4. On the far side it becomes Broadway, continuing in an overall direct but sinuous course until it crosses the A38 (ST 43615 58182) and becomes Shipham Lane, equally sinuous.

Section 5. Meeting Sandford Road, it crosses over and proceeds as Ilex Lane (ST 41868 58493), then is lost in the field, but is clearly pointing towards Winthill which is now not far away. In this field a stretch of linear rubble was identified as the core or foundation of a road just across from Banwell Garden Centre on the east side of A371 Castle Hill (ST 40820 58557). Running roughly east and west, it is almost certainly the line of the proposed road (Williams 2007, 153; V Russett 2018, email to author, 10 December). Not far north of the line is Star Roman villa (ST 43512 58665) and a short way further on is the small Roman fort (ST 40319 58782) (Historic England 2021d).

Conclusion

There is much imprecision about this route. However, to reiterate the main point made above, a road connection between the Roman towns of Winthill and Charterhouse is to be expected. The sinuosity is not uncommon with Roman roads which have not survived as important highways, the two end destinations being no longer centres of population. What is important is that neither of the two stretches of lanes deviates far from a line drawn between the ends of each stretch. If there were a road, this is a good candidate for it

7: Clevedon to Gatcombe

The case

This is a more speculative proposition. The rationale for it is first, the probability of a link between a likely settlement at Clevedon and the town at Gatcombe, secondly, the existence of a possible route along the Failand Ridge; and thirdly, a range of Roman era finds along its route.

However, the evidence does not allow more than the word 'likely' for the settlement at Clevedon. Scatters of coins (not apparently hoards) and pottery in at least four different locations in Clevedon suggest more than a simply rural landscape. The discovery of what was thought to be a road with associated Roman pottery near All Saints Church in the east of Clevedon provides a possible communications link (North Somerset Historic Environment Record MNS483). If the evidence for the road is acceptable and is aligned towards Clevedon, then some kind of population centre seems a reasonable assumption. However, all these finds occurred in the 19th century and the writer is not aware of any discoveries made since. Prima facie the existence of a population centre, however modest, seems feasible even if only a fishing settlement.

It may be that this is a pre-Roman route way which continued in use during the Roman era.

The route (Fig. 15)

The beginning might be the possible Roman trackway, east of Strawberry Hill, (Beale 1906, MNS483) (ST 41653 71752). This might connect with a trackway that starts above on Court Hill to the east (ST 41916 71831). There are well-made zigzagging tracks up the hillside connecting the two, but the suspicion must be that these, or at least some of them, could be for vehicles from Clevedon Court; they may be leisure drives since there is in modern times a perfectly good road along the south of the ridge into Clevedon. But there is a feasible route to the bottom which may have pre-existed any carriage drives. Where it reaches the bottom near All Saints Church, on the western side of the valley (ST 41500 71797), the 1840 Tithe map shows a path ascending obliquely up the steep slope of Strawberry Hill and proceeding on to Dial Hill (ST 40976 71819), where a settlement might have existed.

From the top of Court Hill above Clevedon Court, a path proceeds east along the top of the ridge (ST 43006 72117) until the M5 interrupts its course. Beyond the deep cutting of the M5 the line is continued as a track, again following the ridge top (ST 44638 72315) until just beyond Cadbury Camp hillfort (ST 45152 72139). Here it becomes Cadbury Camp Lane (ST 46744 72857), maintaining its course between large modern houses until it reaches White House Lane (ST 48086 72991), then continuing as Clevedon Road B3128 towards Bristol which it reaches at Ashton Gate. Still on the Tickenham Hill ridge, it passes to the north of Gatcombe and so a way must be found to connect the postulated Roman road route with the walled town. This means finding a way down the south slope of the ridge. Flax Bourton Road (ST 51741 71639) (existing in the 1840s so perhaps an old route)

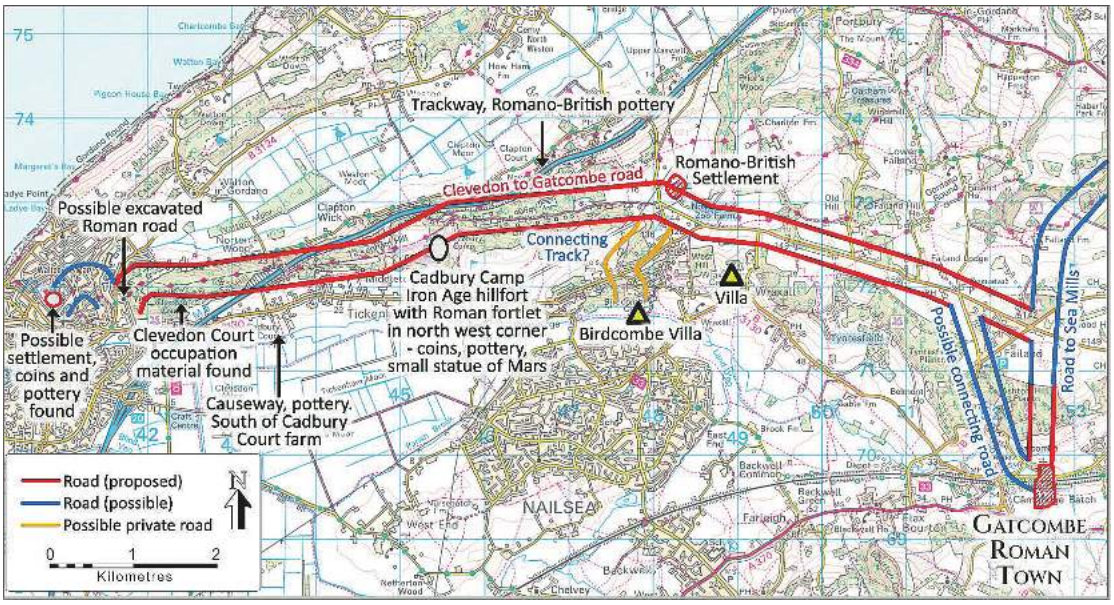

Fig.15 Proposed road between Clevedon and Gatcombe. Roads are marked as a pair of lines either side of the road so as not to mask modern features which may fossilise the Roman line. (© Crown copyright and database rights 2021 0S 100063221).

offers an obvious route towards Gatcombe. Where it reaches the entrance to Ashton Hill Plantation opposite Clifton Lodge; the earliest OS map shows a path (ST 52019 70713) continuing the line and cutting across the plantation's grid of tracks. Projecting the line leads to the top of Gatcombe Court Lane (ST 52250 70021) and so into the west gate (ST 52524 69795) of Gatcombe Roman town (Smisson and Groves 2009).

Supporting considerations

Firstly, the proposed line connects a probable (though possibly not large) population centre at Clevedon with the Roman town at Gatcombe.

Secondly, overall the course is quite direct with long straight sections: not proof it is Roman but a factor.

Thirdly, it passes through a Roman landscape:

- Clevedon settlement. Whatever its size and importance, coin and pottery scatters indicate something.
- The Roman pottery associated with the reported road or trackway near All Saints Church. (North Somerset HER MNS483).
- Occupation material found at Clevedon Court (ST 42405 71511) (Papworth 1960).
- Causeway with associated Roman pottery south of Cadbury Court Farm (ST 43693 71419), western end of Tickenham (North Somerset HER MNS512).
- Cadbury Camp: Roman coins, pottery, small statue of the God Mars (Burrow 1981, 291–293). Also, likely Roman fortlet or signal station in north-west corner (Papworth, 2001).
- Birdcombe villa, Towerhouse Lane, north of Nailsea (North Somerset HER MNS 554) (ST 47972 71713).
- Trackway south of Clapton Court with associated Roman pottery (North Somerset HER MNS 540) (ST 46664 73446).
- Roman era settlement on the line, just east of the junction of White House Lane and Cuckoo Lane. (North Somerset HER MNS5236) (ST 48187 73103).
- Trackway, south of Beggarbush Lane, possibly Roman (North Somerset HER MNS7311) (ST 5434172075).
- Roman settlement at Abbots Leigh (North Somerset HER MNS681) (ST 53814 73825).
- Gatcombe small walled Roman town (ST 52692 69829).

Other possible roads

There are other possible roads which have not yet been fully studied. Three have had some work:

Dundry Roman quarries (ST 55049 67062) (Russell 2013) to Gatcombe. Some map studies have been done but further work is needed.

Road going north past Nempnett Church (ST 53425 60396) (North Somerset HER MNS3231). A section of about 2 miles has been closely studied including on foot, but will not be described in detail here. However, its destination to the north beyond the village of Regil (ST 53900 62442) is not clear, perhaps Gatcombe, perhaps Dundry quarries, perhaps both. There may well be connections to Pagan's Hill temple (ST 55728 62638) (Rahtz 1977) and to the Chew Magna complex (Rahtz and Greenfield 1977) (ST 588 610). Its uncompromising north/south alignment makes a junction to the south with the Charterhouse to Winchester Road probable. Perhaps it continues to push directly south to meet the Fosse Way at Ilchester and so constitute a major route from Gloucester via Sea Mills and Gatcombe and so to the south- west. Perhaps! While the general form of this possible road is very promising, it does not yet meet our criterion of joining centres of population or sites of economic activity

A route from Sea Mills to Gatcombe via Clifton suggested by E K Tratman (Tratman 1962), a ford across the Avon near Hotwells (ST 56339 73272) up Nightingale Valley (ST 55962 73138) of Leigh Woods. Some fieldwork has been done on this.

Other routes are speculative but fulfil the idea of connections between population centres and sites of economic activity.

Gatcombe to Keynsham Roman town at Somerdale (ST 65350 69448) (Historic England 2021c) and on to Bath. This road has long been assumed but not found. Smisson suggested this after his work establishing Gatcombe as a town. It has been considered likely that the road was necessary to serve the villas at Brislington, Keynsham, Newton St Loe, but this is the wrong way round; roads probably come first and villas usually later to take advantage of the road.

Congresbury to Kenn Moor to St Georges to Weston-super-Mare. This is very speculative. The amount of activity around Congresbury very strongly suggests a settlement but it has not been found. The same can be said about St Georges; North Somerset HER uses the word 'settlement' but provides no details at all. Likewise, Weston-super-Mare: significant finds and Congresbury Ware discovered in the north west of the town below Worlebury Hill, but no details are to hand. Also North Somerset HER describes Kenn Moor as an area of Roman 'occupation' (North Somerset HER MNS1784) and refers to the 'Roman settlement and landscape of Kenn Moor by Stephen Ripon 1994'; a large cemetery recently found west of Yatton (Wessex Archaeology 2021a) and the temple at Henbury Wood (ST 4429 6520) add to this picture (Watts and Leach 1996).

Gatcombe to Portbury and Portishead. This depends on what there was at these locations. Certainly there is Roman material at both; for Portbury near or perhaps under the church (ST 50281 75419) (North Somerset HER MNS5166), for Portishead near the Gordano School (ST 46528 75399) (Historic England 2021b) and perhaps elsewhere. But does it amount to a population centre or a site of economic activity, i.e. enough to warrant a road, and a Via Vicinalis? This is not clear. If, as is proposed, the road from the northwest gate of Gatcombe continued to proceed north until the vicinity of Failand Farm, then turned in a north easterly direction towards Abbots Leigh, as Keith Gardner suggests, then it is conceivable that the road forked here (at Failand Farm) with a north-westerly branch going to Portbury. However it also could be that the possible road coming out of Gatcombe West gate and up to Flax Bourton Road crossed the B3128 Clevedon Road and went on to Gordano school.

Winthill to Uphill. It has long been thought that the Winchester to Charterhouse Road continued on to the north-west towards the sea at Uphill. However not all have been convinced, e.g. Margary: 'that this is the line of an old trackway is very probable… But perhaps not advisable to claim it is a Roman Road since it does not lead to any known settlement beyond Charterhouse' (Margary 1973, 103). It is now known that Winthill represents a significant site so it is reasonable to expect a road between Charterhouse and Winthill (Russett pers. comm.). Further on is possible but not yet examined in detail. The writer of this paper is not aware of any strong evidence for a port at Uphill (as there is at Sea Mills or Crandon Bridge further up the river Parrett), but a settlement has been discovered at the seaward end of Bleadon Hill, (Wessex Archaeology, report in prep.) about 2 km from the Axe estuary; however that is some 100m above sea level so hardly likely to be a port. If the Bleadon Hill settlement is sufficiently large or significant, then the road to it from Winthill is worth looking for (the report of the excavation has not yet been published).

Gatcombe to the south. E K Tratman discusses a route suggested by Clevedon Archaeological Society, proceeding south over Barrow Hill (ST 51484 67383) and then bending generally east to meet the Fosse Way. He was dubious, and we have not examined the possibility (Tratman 1962, 167). However a route to the south from Gatcombe, possibly as far as Ilchester, is a very reasonable proposition.

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ADDENDUM

It is argued above, on the basis of widespread random finds, that a substantial settlement or small town may have existed south of Banwell. An important roadside settlement site has now been identified by archaeologists, described as ‘high status’ and ‘potentially of national importance’. In view of on-going excavations at this important and sensitive site it is too early for details to be released, but the author believes that the discovery is welcome confirmation of this paper’s basic concept that Roman roads should be considered in the context of population centres and sites of economic importance.

ARCHAEOLOGICAL INVESTIGATIONS AT CASTLE STREET, BRISTOL, 2015–2018

By Bruce Williams

With contributions by Alejandra Gutiérriez, Elizabeth Pearson and Matilda Holmes.

SUMMARY

During the early medieval period the site occupied part of the floodplain of the tidal river Avon, also some of the higher ground occupied by Bristol Castle. The Castle's moat, perhaps dug in the 13th century, was preceded by an earlier ditch of possible 11th/12th century date, the subject of this report.

INTRODUCTION

Proposals to demolish Bristol's Central Ambulance Station and redevelop with five multi-storey residential towers, one of 26 storeys, led to a programme of archaeological work being undertaken at the site. This began in 2013 with a desk-based assessment (Corcos 2013), followed in 2015 with evaluation trenching to characterise any archaeological remains that could potentially survive (Williams 2016). Both the initial desk assessment and a later geo-referenced map regression exercise indicated that the castle's south curtain wall lay beneath or very close to the north wall of the culverted castle moat which still crosses the site. A further aim was to investigate a documented gateway that stood in the enclosing wall of what was historically '*The Kings Orchard*'.

Seven trenches totalling 84 linear metres were subsequently excavated, with no sign being made of the wall or the gate. Considerable ground disturbance connected with the Ambulance Station could have removed all trace of the gate to the King's Orchard, or it could lie undetected under the highway between the Site and St Philip's Church. As for the curtain wall, owing to structural concerns, a 5-metre buffer zone had to be maintained either side of the culverted moat where no archaeological excavation was permitted, so it was felt that if the wall survived it could lie undetected within this zone and be identified later during the watching brief stage of the development. However, in a final attempt to locate the wall another trench was dug north of the culvert. Although no wall was found here either, an unexpected find was the partial outline of a substantial rock-cut ditch running in a northerly direction towards Castle Street. A hand-dug cutting into the ditch revealed waterlogged layers and pottery sherds dating from the mid-11th to the mid-12th century. A subsequent condition attached to the planning consent for redevelopment of the site required further archaeological excavations to reveal the extent of the ditch, and a watching brief during development groundworks. The excavation was undertaken in 2018 and the watching brief between January – August 2019. This report describes the results of the 2018 excavation.

LOCATION AND BACKGROUND

The development area lies just outside the north-eastern corner of Castle Park in the centre of Bristol, and occupied about 0.9 hectares against the south side of Castle Street, sandwiched between Castle Street, Queen Street, Marybush Lane and Tower Hill and sitting astride the now culverted castle moat. It was not level, sloping down from north to south from a height of c.13m to c.10m above ordnance datum (aOD). The Ambulance Station which occupied about two-thirds of the site was demolished in 2016 and its foundations initially left in place, including a concrete retaining wall which divided the higher, northern third of the site, formerly occupied by a tarmacadam car park, from the Ambulance Station itself. The concrete retaining wall, located just north of the culverted castle moat, marked the boundary between the solid geology comprised of Triassic Keuper Marl (Sandstone) north of the moat and more recent estuarine alluvium, part of the earlier floodplain of the river Avon, south of the moat. This part of the site, referred to as the *'King's Orchard'* from the 14th century, lay outside the medieval castle's south curtain wall, although it was enclosed by its own wall and gate opposite Saint Philip's Church.

Following the Civil War in the middle of the 17th century, Bristol's castle was largely demolished by Act of Parliament and the area laid out with new streets, including Castle Street, lined with both dwellings and commercial premises. However, following a large-scale *Luftwaffe* attack in the early hours on the 24th November 1940, when it has been estimated one thousand high explosive bombs and five thousand incendiary bombs were dropped over central Bristol, the north-eastern and north-western sectors of the site were to suffer particularly badly, and many of the buildings there were either destroyed or badly damaged. During the 1950's much of the area was cleared of rubble, unsafe buildings, some of them of historical interest demolished, and cellars either removed or backfilled. For

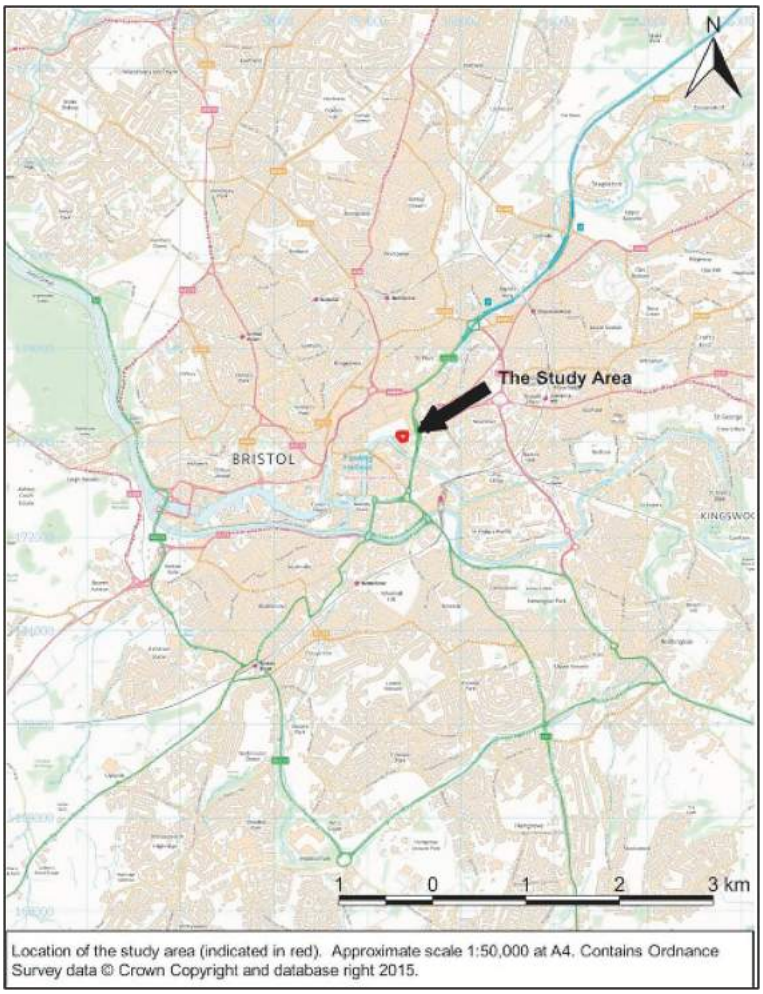

Fig. 1 Location of the site. Scale as shown.

much of the post-war era until the 1960s, the area east of High Street and south of Wine Street, which included the site of the castle, now referred to as *'Castle Park'*, was used as a surface car park.

Some archaeological work was conducted in the area in the post-War era, notably on the castle keep, Castle Street/ Tower Street and at other locations following proposals to construct a new shopping quarter in Broadmead and to demolish what remained of bomb-damaged buildings. A vision in the 1960's for a Civic Centre on the 11 acre site led to archaeological excavations at various locations undertaken between 1968–70 under the direction of Mike Ponsford of Bristol Museum (Ponsford 1979). However, the Civic Centre was never built and the site of the castle was instead laid out as a municipal park. Developer funding in 1989 connected with the construction of the Galleries Shopping Centre on the north side of Wine Street, allowed for a redesign of the park, paying more attention to its medieval topography. At this time, the castle's keep was re-excavated for public display (Good 1996), the remains having first been observed during development works on Castle Green in 1878 (Swayne 1879–80) and then partially excavated in 1948 (Marshall 1951), and parts of the south and west curtain walls uncovered and displayed.

FIELDWORK METHODOLOGY

The evaluation undertaken in 2015 was assigned the Bristol City Museum accession number BRSMG 2015/54, the excavation in 2018 the accession number BRSMG 2020/4 and the watching brief in 2019 the accession number BRSMG 2019/44. All the records from the projects bear these numbers and will be deposited with Bristol Museum and Art Gallery for long-term storage.

During the evaluation and excavation all archaeological features were recorded using a continuous numeric recording system. The assignment of context numbers was as follows.

Context Number	**Project Stage**
300 – 364	Evaluation Trench 3, 2015
1000 – 1032	Excavation 2018
2000 – 2060	Watching Brief 2018 – 2019

Following the results of the evaluation trenching in 2015 it was agreed with the city's archaeological officer that an area around Trench 3 of the evaluation on the north side of the culverted moat would be subjected to full excavation with the knowledge that preservation in situ at the site was not an option given the scale of the required foundations for the proposed tower blocks, and that all trace of the

castle ditch and any other archaeological remains within the development footprint would not survive.

The 2015 Evaluation Cutting in Trench 5 (see Fig 5)
Trench 3 was one of seven archaeological trenches dug across the site in 2015. It measured in length 18.25m north-south, was 2.5m across and exposed part of the eastern edge of a ditch with a terminus next to Castle Street. Two cuttings were hand-dug into the ditch, a northern one located at the ditch terminus, and another in the centre of the trench, equidistant between the culverted castle moat and Castle Street.

The southernmost cutting in the ditch centre revealed a sequence of stratified deposits ranging from brown and red sands to grey, brown and red silts and clayey silts, three of them rich in waterlogged environmental material. Examination of this material suggested the remains were likely to have derived from discarded kitchen and domestic waste, as well as from vegetation growing in and around the ditch (contexts 320, 324, and 327). Found in association were faunal remains which included the bones of cattle, sheep/goat and pig, as well as horse/donkey, cat, goose and passerine, such as robin (see below, 'The Environmental Remains').

The 2018 Excavation (see Fig. 2)
The car park located on the north side of the Ambulance Station had a slight downward slope from north to south towards the culverted castle moat, with the northern site boundary on Castle Street standing at an elevation of 16.00m above ordnance datum (aOD), some 2.6m, above the highest part of the excavation. An area measuring 17.50m north to south by 6.00m – 21.00m east to west, between the culverted moat and the Castle Street, was selected for excavation and was mechanically stripped of its tarmacadam surface to the top of the natural sandstone geology and/or top of the castle ditch, whichever came first. The natural sandstone and ditch top as excavated lay at the same level, so there were no deposits above the natural sandstone other than a layer of 1960's scalpings as sub-base for the tarmacadam car park, indicating the scale of truncation that had occurred at the site in the post-war era.

After machine excavation, the inner and outer edges of the ditch (cut 1001) first observed in 2015 were clearly visible orientated north to south, terminating at a roughly-rounded end adjacent to the steep, artificial sloping bank that rose up to the pavement on modern-day Castle Street (Fig 2). The southern end of the ditch was truncated by the concrete retaining wall that traversed the site from east to

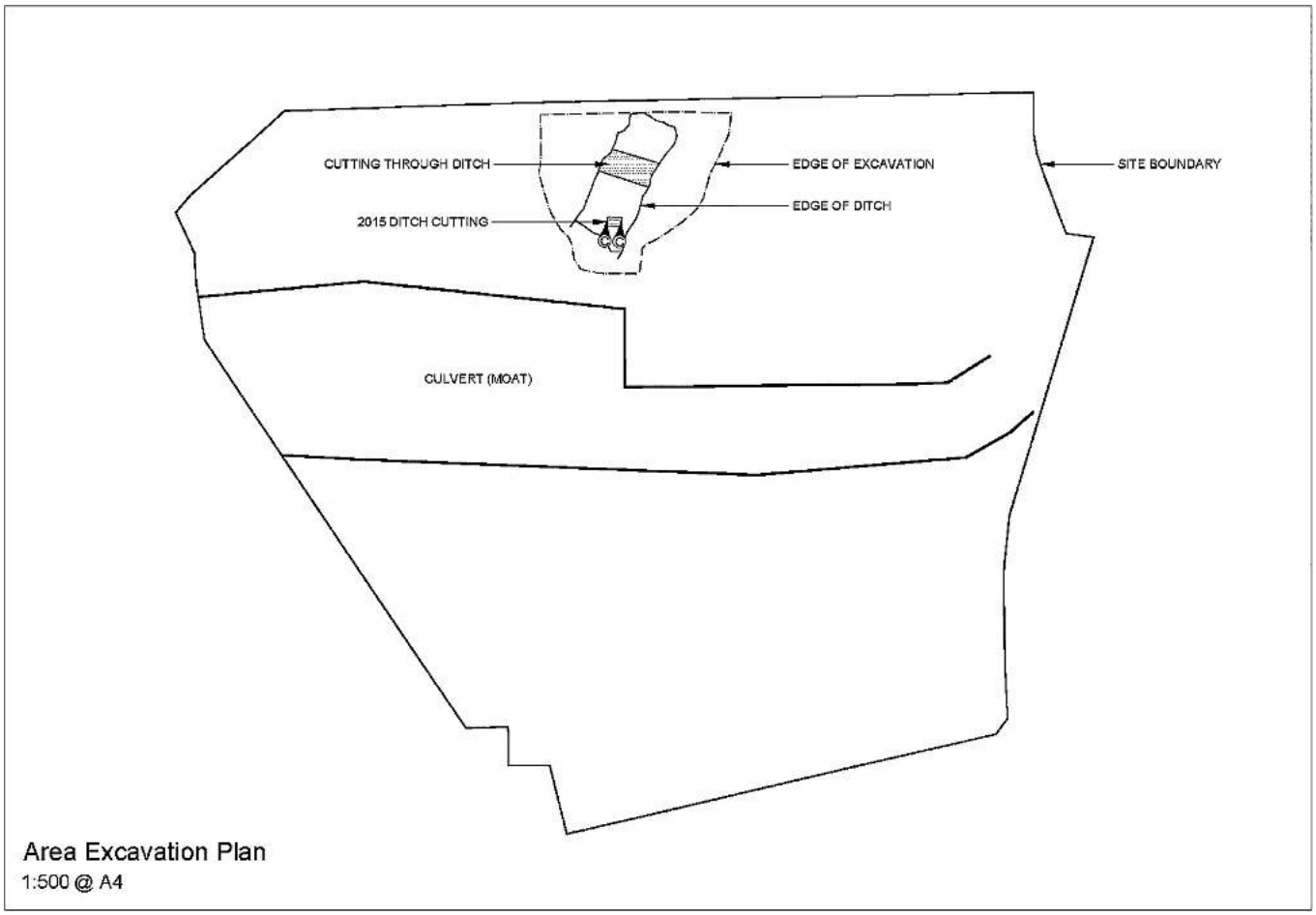

Fig. 2 Excavation boundary (broken line) showing both sides of the ditch, with the 2015 evaluation cutting depicted as section C-C.

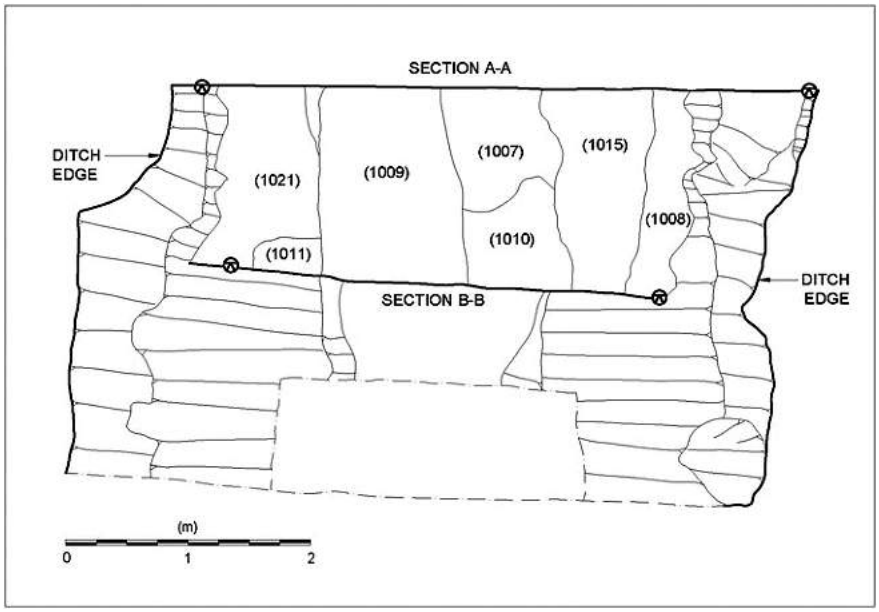

Fig. 3 Plan of cutting across ditch showing location of Section A-A and Section B-B.

Plate 1 General view of ditch viewed north showing E-W section. For locational purposes note external wall of Hall Porch at top left beyond wooden site hoarding. Scales each 1m.

west, separating the car park from the ambulance station. Because of the potential depth of deposits within the ditch it was decided to hand-excavate a 2 metre wide cutting across it, (Fig. 2). About 1 metre into the ditch fill, the cutting was stepped out by a metre on the north side in order to retain a vertical section, whilst the south side of the cutting was battered for safe working and access.

As recorded, the ditch measured 4.78m across at its widest with an irregular scarp and counterscarp, both sloping in at about 47 degrees to a concave base which stood at about 10.70m above ordnance datum. The bottommost deposit (1023), a compact layer of clean silty sand containing fragments of sandstone was probably eroded material from the ditch sides. Above this lay (1022), a compact but friable, mottled pale olive green/brown fine silty sand, indicative of having been stained from organic material from upper deposits in the ditch. Overlying (1022) and extending up the scarp face of the ditch was a deep deposit of mid-brown, fine silty sand (1021), up to 0.50m deep. This layer of fine silty sand contained some animal bones and moderate flecks of charcoal and was interpreted as a primary deposit, probably resulting from the erosion of a counterscarp bank above the inner, western lip of the ditch. A similar, thinner deposit of sand (1008) extended down part of the counterscarp of the ditch, again probably the result of erosion.

The overlying deposits appear to have been deposited in the ditch from the counterscarp side as evidenced in (Fig.4). They consisted chiefly of compacted layers of friable, very silty clays in various shades of red, brown or grey, some containing bones of both large and small animals, fish, frog/toad and bird, also abundant elderberry pips, unidentifiable fragments of charcoal and pieces of fired clay. The exception was context 1009, dark greyish/brown clayey silt which displayed a strong organic odour above a hard iron-pan deposit.

THE FINDS

Overall the ditch deposits produced few finds, just three sherds of pottery hand collected from the ditch fills and two iron small finds. However, environmental samples collected from waterlogged deposits from the evaluation produced an interesting assemblage of plant remains and animal bones which are reported on below.

Pottery **By Alejandra Gutiérrez**

Three sherdsee sherds of pottery weighing 53g were found. All came from Context 320 of the evaluation, All are from hand-made cooking pots and comprise three different fabrics. The sherds are small fragments and no diagnostic features are present. They probably correspond to the following Bristol Pottery Types (BPT):

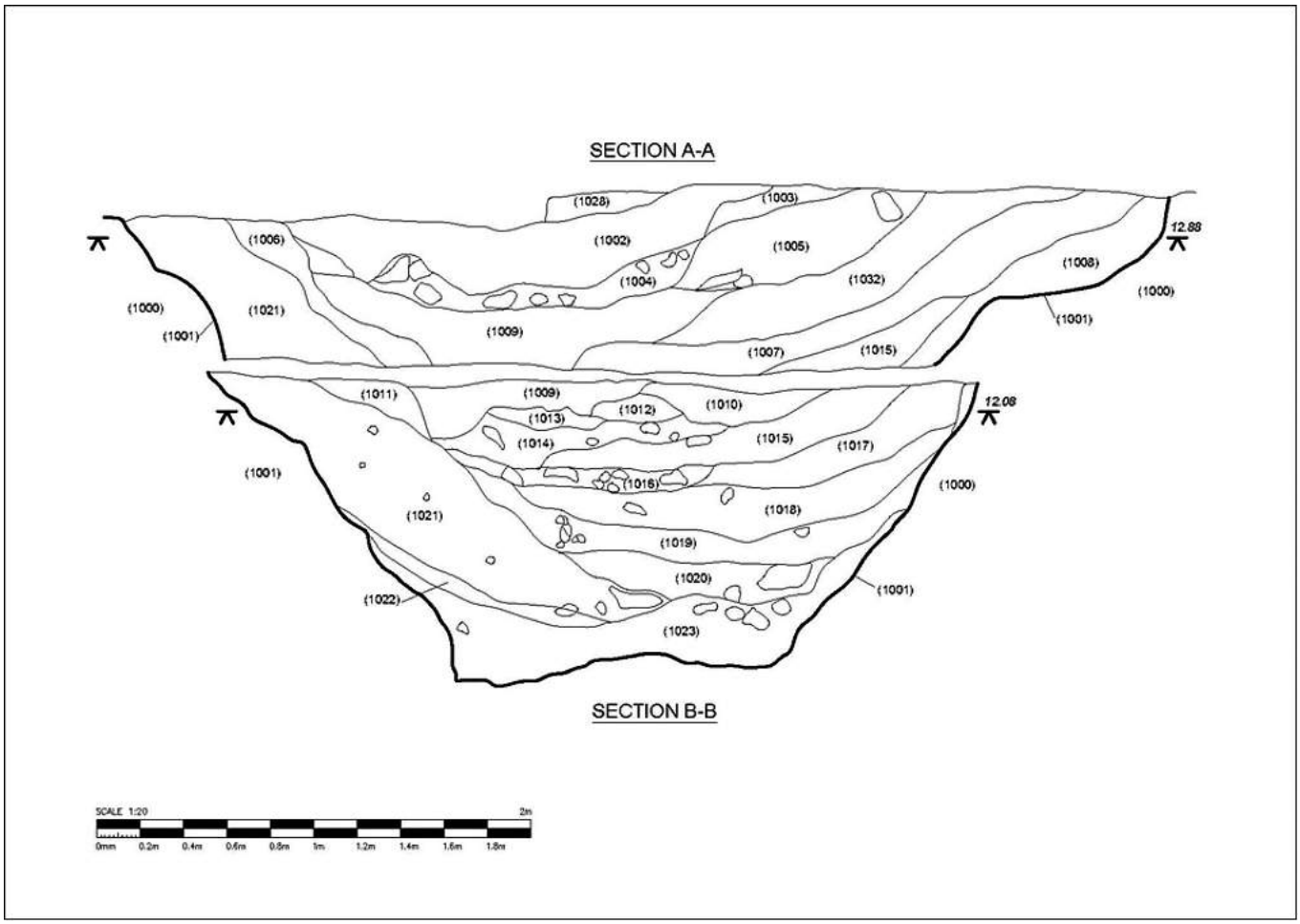

Fig. 4 Detail of Section A-A and Section B-B across ditch.

Plate 2 Close-up view of section A-A and B-B across ditch, viewed north. Scale 1m.

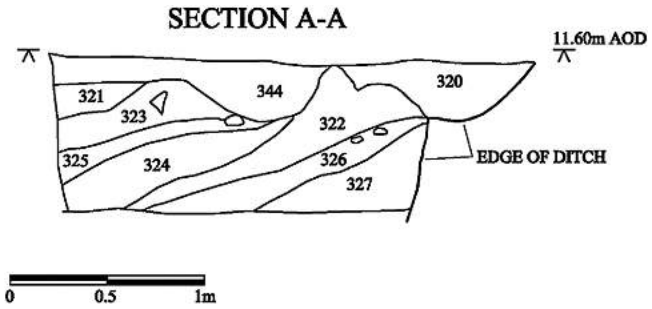

Fig. 5 Section C-C viewed north across 2015 evaluation ditch cutting.

BPT1 (Bristol A/B). Mid-11th-mid 12th centuries (Vince 1988; Ponsford 1998, 136–137): soapy texture, moderate, well-sorted inclusions of glassy quartz <1mm; moderate rounded calcareous inclusions up to 2mm; occasional chert <3mm. It is hand-made and unglazed, with a dark grey/black fabric throughout. Bristol A is considered to be no later than c. 1080 (Burchill 2003, 25).

BPT2 (BPT10); (Bristol C). Mid-11th-mid 12th centuries (Vince 1991; 1985; Ponsford 1998, 136; Burchill 1996, 36; 2000, 81). Soapy, hard grey/black fabric with abundant limestone inclusions and/or voids (from burnt out limestone).

BPT5. Mid-11th-mid 12th centuries (Ponsford 1998, 136; Burchill 1996, 36; 2003, 25). A single sherd from a hand-made jar, black throughout. Hard, coarse fabric with quartz inclusions, including glassy quartz; poorly sorted limestone; rare flint/chert; and grey? mudstone in a micaceous matrix. Description matches fabrics already described by other authors

Small Finds **By Bruce Williams**

Iron

1. Chisel. Dimensions 117mm x 18mm x 14mm. SF.1, context 320.

2. Possible handle comprising of a circular, domed grip, connecting shank and flat, circular plate. Very heavily corroded and only identifiable through x-rays and the partial removal of corrosion. SF.3, context 322.

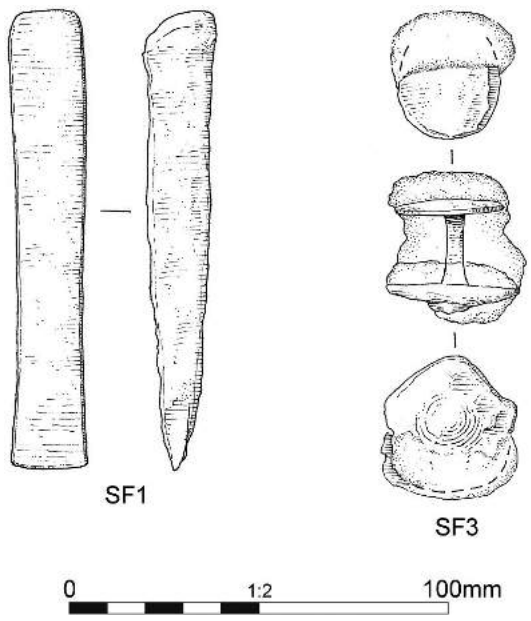

Fig. 6 The iron small finds.

THE ENVIRONMENTAL REMAINS

By Elizabeth Pearson

Summary

A total of 17 samples of Saxo-Norman/medieval date from the ditch were selected for analysis. Animal bones were also hand-collected.

Sheep/goat, cattle, pig, chicken, goose, eel and roe deer bones are likely to derive from food waste. Other smaller mammals such as cat, field vole, small passerine (robin-sized bird) and frog/toad may have been accidental inclusions. Sheep bones were more common in the Saxo-Norman deposits, and cattle bones more dominant from medieval deposits. However, the assemblage was too small to determine with certainty any trends in meat consumption.

Waterlogged plant remains showed that the ditch sampled was overgrown with vegetation common on nitrogen-rich, organic soils. One deposit included remains of food waste (probably locally collected or cultivated), alongside possible remains of textile processing waste and a small amount of charred cereal crop waste.

Introduction and archaeological background

The site occupies slightly acid loamy and clayey soils with impeded drainage. The soils here, and to the north are of moderate to high fertility. Immediately to the south, soils are loamy and clayey floodplain soils, which have naturally high ground water and are prone to flooding (Cranfield Soil and AgriFood Institute 2019).

Samples were taken from the evaluation at the site in 2015 (Williams 2016; Pearson 2016). These samples were taken from a substantial rock-cut feature interpreted as a ditch, infilled between the 11th and mid-12th centuries AD. It is thought that the ditch was defensive, and was likely part of the town or castle's Saxo-Norman fortification (Williams 2016).

Plate 3 Chisel.

Plate 4 Possible iron handle.

Further excavation and bulk sampling of the ditch was carried out in 2018, based on a Written Scheme of Investigation for a programme of archaeological work (Williams 2017).

Project parameters

The environmental project conforms to relevant sections of the CIfA standards and guidance (**CIfA** 2014a; 2014b); and *Environmental archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation* (English Heritage 2011).

Methods

Sampling policy

Samples were taken by the excavator from deposits considered to be of high potential for the recovery of environmental remains. A total of three samples (each of 30 litres; Table 1a) were taken from an evaluation undertaken in 2015 (Pearson 2016) from the fill of a rock-cut ditch dating to between mid-11th and mid-12th century. A total of fourteen samples, each of up to 45 litres, were also assessed from the excavation (Table 1b). Following initial assessment, which showed low potential for the plant remains to contribute towards the interpretation of the site, no further work was carried out on plant remains from the latter.

The results of further detailed scanning of the evaluation samples are presented in this report.

Processing and analysis of bulk samples

A total of three samples (each of 30 litres) were taken from the evaluation (Table 1a). A sub-sample of 10 litres was processed for assessment from each sample. The ditch was thought to be 11th – early 12th century in date and associated with Bristol Castle, although there was a paucity of material with which to date the filling of the ditch. The earliest layer was (327), followed by contexts 324 and 320 (Bruce Williams, pers comm). No further processing of these samples was possible as the remainder, following assessment, was discarded in the intervening period between 2016 and 2019.

All samples were processed by flotation using a Siraf tank. The flots were collected on a 300μm sieve and the residue retained on a 1mm mesh. This allows for the recovery of items such as small animal bones, molluscs and seeds. The residues were scanned by eye and the abundance of each category of environmental remains estimated. A magnet was also used to test for the presence of hammerscale. The flots were scanned using a low power MEIJI stereo light microscope and plant remains identified using modern reference collections maintained by Worcestershire Archaeology, and a seed identification manual (Cappers *et al* 2012). Nomenclature for the plant remains follows the *New Flora of the British Isles*, 3rd edition (Stace 2010).

The cell structure of charcoal fragments from ditch fill (324) were examined in three planes under a MEIJI dark illumination microscope and identifications were carried out using reference texts (Schweingruber 1978; Hather 2000) and reference slides housed at the Worcestershire Archaeology office.

Context	Sample	Feature type	Period	Sample volume (L)	Volume processed (L)
320	1000	Ditch	Saxo-Norman	50	10
324	1001	Ditch	Saxo-Norman	25	10
327	1002	Ditch	Saxo-Norman	25	10

Table 1a List of samples from 2015 evaluation.

Context	Sample	Feature type	Fill of	Period	Sample volume (L)	Volume Processed (L)
1009	2003	Ditch	1001	Medieval	2	2
1009	2000	Ditch	1001	Medieval	15	15
1009	2002	Ditch	1001	Medieval	25	12
1014	2004	Ditch	1001	Medieval	30	15
1014	2005	Ditch	1001	Medieval	10	10
1015	2007	Ditch	1001	Medieval	30	15
1015	2006	Ditch	1001	Medieval	15	15
1017	2008	Ditch	1001	Medieval	15	15
1018	2010	Ditch	1001	Medieval	30	15
1018	2009	Ditch	1001	Medieval	45	15
1019	2011	Ditch	1001	Medieval	30	15
1021	2012	Ditch	1001	Medieval	30	15
1022	2011	Ditch	1001	Medieval	15	15
1032	2001	Ditch	1001	Medieval	15	15

Table 1b List of samples from 2018 excavation.

FAUNAL REMAINS

By Matilda Holmes

Bones were identified using the author's reference collection. Owing to anatomical similarities between sheep and goat, bones of this type were assigned to the category 'sheep/ goat', unless a definite identification (Zeder and Lapham 2010; Zeder and Pilaar 2010) could be made. Bones that could not be identified to species were, where possible, categorised according to the relative size of the animal represented (micro – rat/ vole size; small – cat/ rabbit size; medium – sheep/ pig/ dog size; or large – cattle/ horse size). Ribs were identified to size category where the head was present, vertebrae were recorded when the vertebral body was present, and maxilla, zygomatic arch and occipital areas of the skull were identified from skull fragments.

Tooth wear and eruption were recorded using guidelines from Grant (1982) and Payne (1973), as were bone fusion, metrical data (von den Driesch 1976), anatomy, side, zone (Serjeantson 1996) and any evidence of pathological changes, butchery (Lauwerier 1988) and working. The

condition of bones was noted on a scale of 0–5, where 0 is fresh bone and 5, the bone is falling apart (Lyman 1994, 355). Other taphonomic factors were also recorded, including the incidence of burning, gnawing, recent breakage and refitted fragments. All fragments were recorded, although articulated or associated fragments were entered as a count of 1, so they did not bias the relative frequency of species present. A number of sieved samples were collected but because of the highly fragmentary nature of such samples a selective process was undertaken, whereby fragments were recorded only if they could be identified to species and/ or element, or showed signs of taphonomic processes.

Taphonomy and Condition

Bones were generally in good condition, with few refitted or recently broken fragments (Table 2). A small amount of gnawing suggests that a few bones were not buried immediately but were available for dogs to chew. However, the majority of teeth remained within the mandible which suggests that bones were buried fairly soon after discard and were subject to little post-depositional movement.

Butchery marks were observed on a few bones, and largely took the form of chop marks on the post-cranial bones of cattle, although fine cut marks were also occasionally noted as well as the butchery of pig, goat and equid (horse or donkey). Butchery was consistent with the reduction of the carcass into joints of meat and the removal of horn cores, most likely to be used for horn-working. Butchery of an equid metatarsal may have resulted from removal of the skin.

Condition	**10–11th C**	**11–12th C**
Fresh	0	0
Very good	4	2
Good	23	19
Fair	9	21
Poor	3	4
Very poor	0	0
Total	39	46
Refit	1=9	3=11
Fresh break	0	7
Gnawed	5	15
Loose mandibular teeth*	1	0
Teeth in mandibles*	4	10
Butchery	1	10
Burning	0	0

*Table 2 Condition and taphonomic factors affecting the hand-collected assemblage identified to taxa and/ or element. Teeth included where stated; *deciduous and permanent 4th premolar and molars.*

The Assemblage

The main domesticates dominated the assemblage, and although there appears to have been a greater proportion of sheep/goat bones in the Saxo-Norman phase (Table 3), the sample was too small to reliably suggest a change to beef consumption with time. In the early medieval period cattle were most commonly recovered, followed by sheep/ goats then pig (though cattle and sheep/ goat numbers remain similar if the bones from sieved samples are included). Chicken, goose, eel, oyster and roe deer bones most likely also originated as food waste. However, animals such as equid and felid (wild or domestic cat) are less likely to have been eaten. The field vole, small passerine (a robin-sized bird) and frog/ toad were probably commensal animals living in the area that became incidental inclusions. For such a small assemblage, a relatively diverse number of taxa were recovered, which may reflect the location of the excavation in the vicinity of Bristol Castle.

Taxa	**10–11th C**	**11–12th C**	
	H	H	S
Cattle	16	25	3
sheep/ goat	15	11	11
Goat		1	
Pig	9	9	4
Equid		4	
Felid	2	1	
Roe deer	1		
Field vole			2
Domestic fowl	2	1	1
Goose			1
Passerine			1
Frog/ toad			2
Eel			8
Oyster		1	
Total identified	45	53	33
Unidentified mammal	16	3	
Large mammal	43	38	
Medium mammal	24	18	
Total	128	112	

Table 3 Species representation (NISP) of hand collected assemblage. H= hand collected; S= samples.

While anatomical elements were present from all areas of the carcass (Table 4), there was a notable under-representation of vertebrae and foot bones. This implies that carcasses were butchered elsewhere, and that the bones, therefore, disposed of at the site were mostly the remains of food waste.

There were too few mortality data to provide detailed information on the provisioning of the site or wider economy, however, some fusion and tooth wear data could

be calculated. One cattle mandible at wear stage D, and individual sheep mandibles at stages C, E and H indicated immature, young adult and elderly animals respectively. Fusion data were similar, with both immature and elderly cattle and sheep/ goats represented. Data for pigs were even less abundant, although juvenile animals were represented in the Saxo-Norman phase, and only adults in the early medieval phase. The porous bones of lambs were recovered from both phases, indicating that they were either bred in the vicinity, or were consumed as a delicacy. No sexing data were available for the main domesticates, but a hen was observed from a tarsometatarsal without a spur.

	10–11th C			11–12th C		
Element	**Cattle**	**Sheep/ goat**	**Pig**	**Cattle**	**Sheep/ goat**	**Pig**
Horn core	2			1	1	
Skull						
Zygomatic	1			1		
Maxilla			1			
Loose maxillary tooth			1	1	1	
Mandible	1	1		2	2	
Loose mandibular tooth	2					
Hyoid	1					
1st cervical vertebra					1	
2nd cervical vertebra						
Cervical vertebra						
Thoracic vertebra				2		
Lumber vertebra					1	
Vertebra	1					
Sacrum						
Scapula	1	2	2		1	1
Humerus	1	2		3		1
Radius		1		2	1	1
Radius + ulna		1		1		
Ulna			1	1		
Carpal	1					
Pelvis	2	1				3
Femur		3	1	4		1
Tibia	1	2	1	2	3	
Fibula						
Astragalus						
Calcaneus			1	1		
Metacarpal				2		1
Metatarsal		2	1	2		
Metapodial					1	1
1st phalange	2					
2nd phalange						
3rd phalange						
Total	16	15	9	25	12	9

Table 4 Species representation by anatomical element (fragment count). Hand collected bones.

PLANT REMAINS

Results

Results are summarised in Tables 5–7.

The 2015 Evaluation samples

Waterlogged plant remains

All three samples from the 2015 evaluation were rich in waterlogged plant remains which are likely to derive from discarded kitchen and domestic waste, but also show characteristics of residues of vegetation growing in neglected, overgrown areas.

The lowest layer was dominated by elderberry pips, in association with seeds of weeds indicative of nitrogen-rich ground, such as common nettle (*Urtica dioica*), orache (*Atriplex* sp), white horehound (*Marrubium vulgare*) and hemlock (*Conium maculatum*). There was no evidence of standing water, but sedge (*Carex* sp) suggests at least damp conditions.

The assemblage from layer (324) was similar but more diverse. Elderberry pips (*Sambucus nigra*) were dominant, along with apple/pear (*Malus*/*Pyrus* sp) pips indicating these fruits may have been collected locally for food and discarded with kitchen or domestic waste. Hemp (*Cannabis sativa*) was also recorded, being presumably the waste from hemp processing for textiles. Common crop weed seeds, such as corncockle (*Agrostemma githago*), are also likely to originate from crop processing waste.

This assemblage would be consistent with a ditch, overgrown with vegetation but sufficiently close to habitation to receive organic kitchen and domestic waste, and possibly some crop processing waste.

The overlying layer (320), like (324 and 327) was dominated by elderberry pips and occasional seeds of plants which may have been growing around the castle settlement.

Large mammal bone (including diagnostic fragments) and charcoal were abundant in all three samples, whilst small quantities of small mammal and fish bone were also noted.

Charred plant remains

In all three deposits, small quantities of charred cereal crop remains, such as free-threshing wheat and oat were also noted, probably originating from domestic hearths.

context	large mammal	small mammal	fish	frog/td	bird	charcoal	charred plant	mineralized plant	waterlogged plant***	hammerscale	artefacts
320	abt	occ	occ	occ		abt	occ		abt		occ fired clay
324	abt				occ?	abt			abt		occ fired clay, Fe slag, animal hair
327	abt	occ				abt			abt		mod cbm**, occ lint flake
1009	occ		occ			occ			abt		occ flint, Cu alloy slag & hearth(?), mod building stone
1009	mod	occ	occ		occ	mod	occ		abt	occ	occ coal, Fe slag, Cu alloy slag, burnt flint(?), building stone
1009	occ					occ					occ cu alloy slag (?), abt burnt stone
1014	mod	occ	occ		occ	occ					occ oyster shell, flint, lime mortar, abt building stone.
1014	mod	occ	occ			occ			abt		occ flint, mod building stone
1015	occ					occ			abt		occ flint, pot(?), building stone
1015	occ					mod	occ*		abt		occ burnt stone, flint
1017	occ		occ			mod			abt		abt building(?) stone, occ burnt flint
1018	mod					occ			abt		occ flint, heat-cracked stone, building stone
1018	mod	occ			occ	mod			abt		mod building stone.
1019	occ					occ			abt		occ fe slag(?), chert, abt building stone/ rubble
1021	occ					occ					abt building stone/ rubble
1022	occ					occ			abt		mod building stone/rubble
1032	mod	occ		occ	occ	occ			abt	occ	occ Fe slag, abt building(?) stone

*Table 5 Summary of environmental samples; occ = occasional, mod = moderate, abt = abundant, * = nutshell, ** = ceramic building material, *** = all elderberry.*

Charcoal
A small quantity of oak (*Quercus robur/petraea*), lime (*Tilia* sp) and hazel (*Corylus avellana*) charcoal was recorded from ditch fill (324), which is likely to derive from kilns and hearths and probably reflects woodland within the vicinity of the site.

The 2018 excavation samples
These were all dominated by elderberry pips and unidentifiable, fragmented charcoal. No further work was carried out on this material.

Discussion
The elderberry pips, which are dominant, may simply derive from shrubs growing on neglected, overgrown ground at the margins of the ditch, and, moreover, remains of other plants common on neglected and sometimes nitrogen-rich ground were present. However, when considered in conjunction with the general domestic waste in Context 324, it seems likely that food and crop waste was disposed of in the castle ditch, and that the elderberry, therefore may, equally well, represent food waste.

No exotic cultivars were recorded: the waste present is likely to result from locally collected or locally grown food, textile crops and possibly plants with others uses (for example, medicinal), all being relatively common in deposits of this date.

The greatest diversity of remains, indicating potential food, textile and crop waste was recorded from layer (324). It is difficult to determine whether there was a greater level of domestic activity during this phase of infilling of the ditch, or simply whether conditions were more conducive to the survival of a greater range of organic remains at this level within the ditch.

Synthesis
Although the castle is likely to have been surrounded by productive agricultural land (arable and pastoral; see above), there is little evidence for storage and distribution of cereal crops or livestock from the samples. Only sparse charred cereal crop waste was present and the animal bone from domestic livestock appeared to represent food waste from animals butchered elsewhere. The small assemblage of animal bone, although diverse, and possibly reflecting

Latin name	**Family**	**Common name**	**Habitat**	**320**	**324**	**327**
Waterlogged plant remains						
Rubus sect *Glandulosus*	Rosaceae	bramble	CD	+	+	+
Cannabis sativa	Cannabaceae	hemp/cannabis	ABF		+	
Urtica dioica	Urticaceae	common nettle	ABCD	++	+	++
Polygonum aviculare	Polygonaceae	knotgrass	AB		+	
Fallopia convolvulus	Polygonaceae	black bindweed	AB		+	
Rumex sp	Polygonaceae	dock	ABCD		+	
Stellaria media	Caryophyllaceae	common chickweed	AB		+	
Agrostemma githago	Caryophyllaceae	corn cockle	AB		+	
Chenopodium album	Amaranthaceae	fat hen	AB		++/+++	
Atriplex sp	Amaranthaceae	orache	AB	+	+	+
Hyoscyamus niger	Solanaceae	henbane	AB		+	
Solanum nigrum	Solanaceae	black nightshade	AB		+	
Marrubium vulgare	Lamiaceae	white horehound	ABD	+/++	++	+/++
Onopordum acanthium	Asteraceae	cotton thistle	B		+	
Sambucus nigra	Caprifoliaceae	elderberry	BC	++++	+++	++++
Aethusa cynapium	Apiaceae	fool's parsley	AB	+		+
Conium maculatum	Apiaceae	hemlock	AB	+	+	+
Eleocharis sp	Cyperaceae	spike-rush	E		+	
Carex sp (2–sided) nutlets	Cyperaceae	sedge	CDE		+	
Carex sp (3-sided) nutlets	Cyperaceae	sedge	CDE	+	+	+
Mineralised plant remains						
unidentified berry	unidentified				+	
Charred plant remains						
Triticum sp (free-threshing) grain	Poaceae	free-threshing wheat	F	+		+
Avena sp grain	Poaceae	oat	AF			+
unidentified wood fragments	unidentified			+	+	

Table 6 Plant remains from bulk samples.

Key:

habitat	quantity
A= cultivated ground	+ = 1 – 10
B= disturbed ground	++ = 11– 50
C= woodlands, hedgerows, scrub etc	+++ = 51 – 100
D = grasslands, meadows and heathland	++++ = 101+
E = aquatic/wet habitats	
F = cultivar	

Latin name	Family	Common name	Habitat	324
Quercus robur/ petraea wood	Fagaceae	oak	C	6
cf *Quercus robur/ petraea* wood	Fagaceae	oak	C	1
Tilia sp wood	Tiliaceae	lime	C	1
cf *Tilia* sp wood	Tiliaceae	lime	C	1
Corylus avellana wood	Betulaceae	hazelnut	C	3

Table 7 Charcoal from ditch deposit (324); C = woodlands, hedgerows, scrub etc.

the castle location (i.e. consistent with a relatively high status economy usually associated with such a location), was, however, too small to comment on in respect of the provisioning of the castle from the wider economy.

Waterlogged plant remains from the ditch are likely to have derived from vegetation growing in and around the ditch, but including, in one fill, small amounts of kitchen, textile and crop waste. The kitchen waste suggests locally collected or cultivated food, and that this was also a handy place to dump waste. Further scanning of samples did not result in the identification of any exotic food waste.

GENERAL DISCUSSION

The discovery in 2015 of what was clearly a defensive ditch was unexpected as the focus of the fieldwork was to locate the south curtain wall of the Castle. Although the wall lay undetected following the archaeological fieldwork and during the construction phase of the development, it is possible that parts of it could lie undetected beneath the north wall of the culverted moat which, as mentioned earlier, was left undisturbed during the construction works.

In view of the low elevation of the newly discovered ditch, with no overlying deposits other than the tarmacadam car park surface some 2.6m lower than Castle Street itself, it is safe to assume that the upper part of the ditch would have suffered a degree of truncation, suggesting that when dug, it would have been wider and deeper than recorded in 2019.

The ditch could be the same as the one found in 1969 by M W Ponsford at his Site C, although this was located some 100 metres away to the north, one of several archaeological interventions he conducted at the castle site between 1968 and 1970. (see Fig. 7), Ponsford states in his excavation report (Ponsford 1979) that the earliest silting of the ditch was of the 12th century based on ceramic evidence, which is comparable to the date of the pottery from the lower layers of the ditch under discussion. However, he states that the ditch displayed signs of having been recut, which he attributed to a refurbishment of the castle's defences during the Civil War. Ponsford's excavation of the ditch at Site C was conducted at a much higher elevation and the ditch at that location appears to have suffered considerably less truncation than the one being discussed here. This could explain why there was no sign of a recut of the ditch at the current site. However, the dichotomy here is that if the two separate sections of ditch belong to the same ditch, then Ponsford's ditch must have been superseded by the 14th century cutting of the moat that now lies culverted beneath Lower Castle Street, so either the ditch at Site C fell out of use at that time, or it was brought back to use during the Civil War when, according to Ponsford, it appears to have been recut. If the ditch was recut in the 17th century then there must have been two ditches open at the same time on the eastern side of the castle, the one found by Ponsford in 1969 and, a little to the east, the now culverted moat, although there seems to be no mention of this in the historical record or in discussions of the archaeology of Bristol Castle.

Another imponderable is the fact that the ditch terminated adjacent to Castle Street, presumably next to a gate on a road from the town towards the *Old Market* suburb. The only known gate near this location is *'Nether Gate',* mentioned in a 1373 perambulation of the town and county boundary (*ibid*, 151), but this stood a little to the east,

As for a date for the digging of the ditch south of Castle Street, only three sherds of pottery from the lower deposits, dated between the mid-11th – mid-12th century, were found. it seems plausible that it could have been a pre-Conquest creation, perhaps defining the eastern limit of a pre-castle defence or, as postulated by Ponsford at his Site C, it could be evidence for a ringwork pre-dating the motte and bailey castle attributed to Geoffrey, Bishop of Coutances – another possibility is that it was the bailey ditch itself, although Leech has argued that it lay much further to the west (*ibid*, 96) As discussed earlier there was a complete lack of dating material from the upper levels of the ditch, not helped by truncation when the properties on Castle Street were built in the second half of the 17th century, so it is not known when it was filled in. Although obviously cut to the south by the ditch dug in the 14th century for the now culverted moat, it could well have been filled if it became redundant in the 12th century when the stone and keep castle was built

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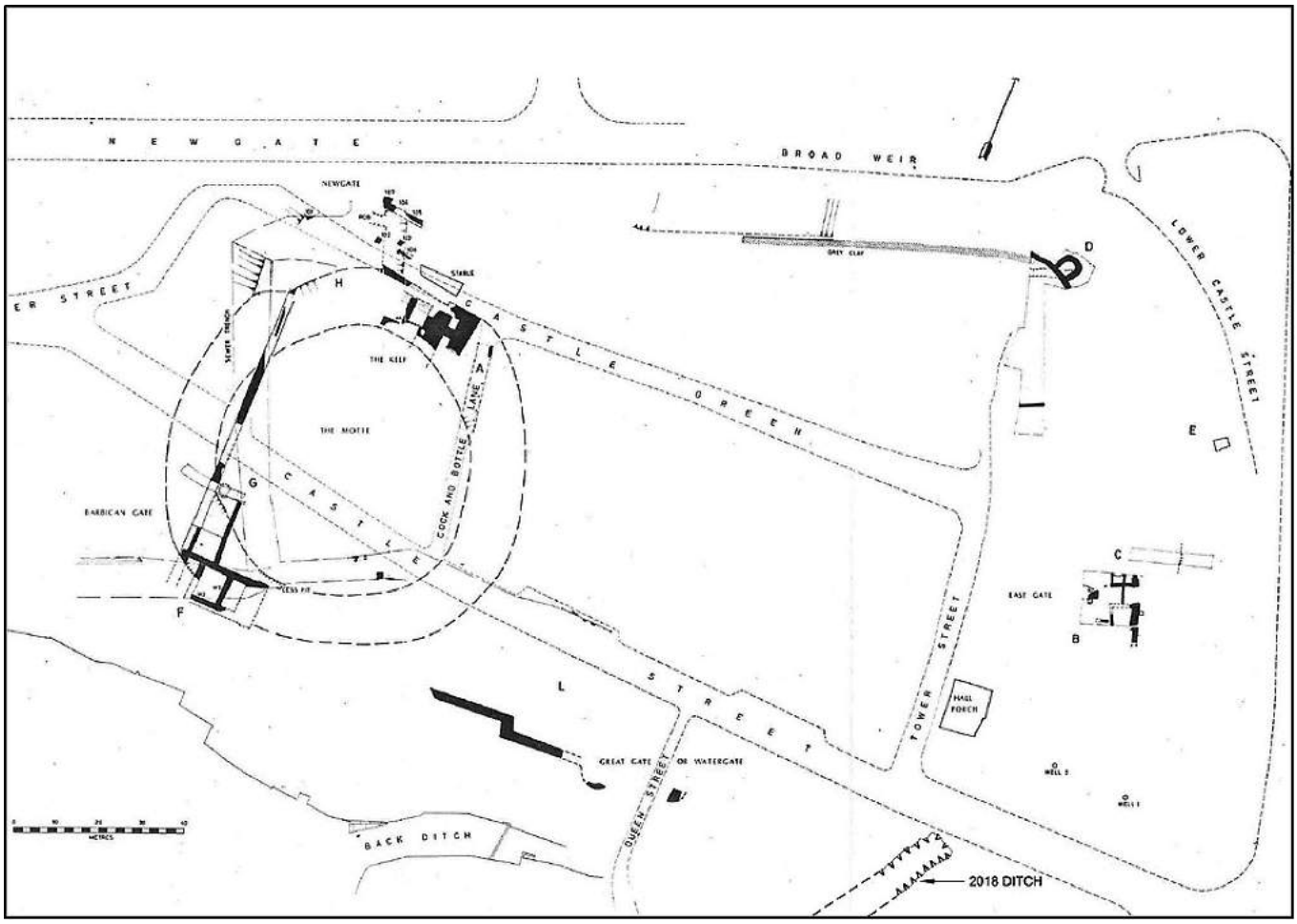

Fig. 7 Plan of Bristol Castle excavations between 1948–70 (after Ponsford 1979, Fig.6). Added to this plan is the ditch excavated in 2018 just south of Castle Street, opposite the Hall Porch. (note Ponsford's Site C and his ditch edge to the northeast).

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ELEVEN YEARS OF EXCAVATIONS WITHIN THE MINSTER PRECINCT AT CHEWTON MENDIP, SOMERSET: AN OVERVIEW OF AN IMPORTANT COMMUNITY ARCHAEOLOGY PROJECT

By Pippa Osborne

ABSTRACT

An unremarkable field to the north of the parish church of St Mary Magdalene, Chewton Mendip, Somerset, and lying within a curvilinear boundary, had intrigued the author since moving to the village in 1999. Why should land central to the village not have been built on? In 2010, having founded Community Archaeology on the Mendip Plateau (CAMP) and looking for a project to engage the group, the author asked John Oswin of the Bath and Counties Archaeological Society (BACAS) to carry out a resistivity survey of the field on our behalf. This revealed clear linear anomalies suggesting a rectilinear building running parallel to the north churchyard wall. What followed was eleven years of excavation, documentary research, comprehensive finds study, the creation of a medieval fabric type series of pottery retrieved from the excavations and detailed soil analysis. Approaching the final stages of the excavation, this paper gives the historical background and overview of the findings of a site of significant importance.

INTRODUCTION

Chewton Mendip: its origins

The parish of Chewton Mendip lies on the Mendip Hill Plateau, 4 miles northwest of Wells, Somerset. Today's parish boundary reflects that of the later medieval, secular Manorial Estate, first granted by the Crown to the Vivonne family of Normandy sometime in the 12th century. It descended through various lines to the late medieval period when it reverted to the Crown. Since the early post-medieval period it has been held by the Waldegrave Family. To date, there is very little evidence that any of the Lords of the Manor resided in Chewton until the 19th century, but the name Court Hayes for a field directly south of the parish church may give a clue as to the potential whereabouts of a Manor house.

Chewton Mendip is a large parish stretching from Priddy in the southwest to Chewton Plain in the north. The underlying geology is predominantly carboniferous limestone with Jurassic limestone and clay immediately underlying the site of the excavations. The carboniferous has been exploited in both the Roman and the later medieval and early post-medieval periods, for its lead and silver content, where it was mined on the common wastes.

Chewton took much of its wealth from the lead mining industry, but was often in conflict with sheep farming practices, an equally important source of income. The present-day hamlet of Green Ore, lying within the old manorial boundary on the wastes, has its origins in the Carthusian Grange of Greneworth belonging to the mother house at Hinton Charterhouse. The grange had several sheep sleights and extant accounts of disputes between the monks and the miners provide a valuable source of documentary and cartographical evidence of life at that time (PRO, Ex Dep E 134/19)(SHC, DD/WG/map/3). It is highly probable that Chewton's accrued wealth, as disclosed in the Domesday Book of 1086 was, in part, achieved through centuries old traditions of sheep farming.

Central to the present-day village is the parish church of St Mary Magdalene with the earliest surviving architectural features dating to the later 12th century, but archaeologically hinting at a much earlier foundation (Sampson 2019) although the dedication might not suggest so. The church sits within a curvilinear enclosure on a bluff, overlooking the River Chew which rises close-by.

The land on Chewton Plain in the north of the parish, known in medieval times as the West Field, has surviving elements of common arable and meadow farming practices. To the northwest and linked by an ancient hollow-way is an area called Hollowmarsh, a prime example of a fossilised medieval landscape of meadowlands, each surrounding manor having been allocated strips of land, still traceable today. Research by members of CAMP strongly suggest that Chewton had overall jurisdiction of these meadowlands, most likely having been organised during the Saxon period. (Osborne 2012).

There are several clues to the early beginnings of Chewton. The name has two elements, Chew from the source of the river and tūn for settlement. By implication, as the Head of the administrative Hundred of Chewton in later Saxon times, it must have been well-established by the mid-Saxon period.

The earliest extant estate map and survey of the Manor of Chewton is that of John Rocque, dated 1740 (SHC, DD/WG/map/1)and SHC, DD/WG/ Box 9 Nos 8&9) which provide an invaluable insight into land ownership at that time. Their raison d'etre was to record all the land belonging to the Waldegrave family, but, by good fortune, the rectorial

lands owned by the Kingsmill family and held by Hugh Corry at that time are also indicated. Using regressive map and survey study it has been possible to trace land and property ownership to the late medieval period as far back as the 'Survey of Cecily Bonville', dated 1525 (SHC, A/AMX/12). This shows a well-established network of dispersed farm settlement throughout the lower-lying land within the manor, clearly dating to a much earlier age. Work by the author progresses on this study.

ARCHAEOLOGICAL EVIDENCE WITHIN THE PARISH

The Mendip Hills has a rich prehistoric archaeological record with early evidence in the form of Mesolithic flints found during the present excavations. Several Bronze Age Barrow cemeteries are situated within the parish boundary, notably Ashen Hill (Somerset HER 23812) on the higher ground towards Priddy) and Barrow House Farm (Somerset HER 23256) overlooking the rising of the River Chew. Burledge Hill Fort, formerly within the Tithing of Widcombe and part of the parish of Chewton in 1839 (SHC, D/D/rt/M/119), represents an Iron Age presence, whilst the archaeological remains of Roman lead smelting at Green Ore (Ashworth 1970) and Romano-British settlement on Chewton Plain (Catheral et al 1975) show continued occupation in the area.

The Portable Antiquities Scheme (PAS) documents several early Saxon finds from within the village, most importantly a hanging bowl escutcheon (Burnett, L 2012, SOM-7F2A01) dating from the 6th to 7th century and according to Helen Geake (PAS pers comm) more influenced by the Romano-British and Celtic cultures than Saxon fashion. Such items can be associated with early Saxon burial or high-status Saxon halls. Likewise, two silver sceattas (PAS, SOM-80DA24 & 635A01) dating to the first half of the 8th century, were also significant finds of that period.

The present-day parish church, with architecture dating to the late 12th century, is the earliest extant building in Chewton, and dates to the period of ownership by the Benedictine Abbey of Jumièges, a hugely rich and powerful monastic settlement in Normandy. Aspects of its building archaeology date to an earlier foundation (Jerry Sampson pers comm 2019).

Until the excavations undertaken by CAMP, very little was known archaeologically about the post-Roman to early Norman period of settlement. Whilst landscape analysis can provide insight into the gradual process of land enclosure and dispersed farmstead development, old field names, useful in giving clues to former land use, ownership, and settlement patterns, in general have not endured.

It is against this dearth of archaeological evidence for the early beginnings of the later settlement of Chewton, that the excavations have provided a wealth of information from within the curvilinear church boundary, strongly corroborating historical and documentary evidence for the origins of the church's foundation and its important status on Mendip.

BACKGROUND TO THE DISCOVERYOF THE SITE

Today, the curvilinear boundary, in part, encircles the parish church and the site of the excavations and shows as a strong feature on Google Earth Imaging (Fig. 1). Later development of the area appears to have obliterated part of its course to the south and east. Regressive map and document study strongly point to its ancient origins, later fossilised in house plot boundaries, banks and walls, all of which sit at odds with the general northwest/southeast field alignment of the surrounding landscape.

Extensive research by Professor John Blair on such boundaries suggests the potential for early Saxon foundation, being a precinct of a minster or mother church, which had responsibility for surrounding countryside settlements (Blair, J, 2005, 196–199). At first priests and their families would live within the precinct, travelling to outlying dispersed farmsteads, which were to become the later villages, but by the time of the Norman Conquest these settlements would have their own chapels and resident chaplains.

The fact that Chewton was a Minster or 'mother' church responsible for the cure of souls of the those living in the wider outlying settlements during the Saxon period, is implied by later medieval documents. The Confirmatory Charter to the Abbey of Jumièges made by Henry II dated 1172x1178 states '*..at Chewton 22 tenants and one carucate of land in demesne and the church together with the tithes of the whole parish and the six chapels of Emborough, Paulton, Ston Easton Major and Minor, Farrington and Welton'* (Delisle 1920). These chapelries were situated to the northeast, east and southeast of Chewton.

For the archaeologist, the most useful document and the first point of reference for the potential for archaeological remains within the precinct is the 'Ordinance of Joscelin, Bishop of Bath', dated 1241 (WCL, Calendar of Manuscripts of the Dean & Chapter of Wells). This details not only the dependencies, but the physical buildings extant at that time. It states, *'the houses with court and curtilage at Chyuton wherein the chaplains of Chyuton hitherto dwelt, … houses with court and curtilages at the chapels for the dwelling of chaplains…..the vicar to serve in person in the mother church, and by chaplains in every chapel as old time*'. This confirms a Minster-type arrangement of priests had at one time existed but had been disbanded by 1241.

Evidence was needed that the boundary historically had represented church lands, never having been part of the post-Conquest secular estate. Study of the Rocque map of 1740 was invaluable in this respect, for although the land at that time showed as belonging to Hugh Corry, he was in fact related by marriage to the Kingsmill family who had owned the rectorial lands since 1592 (WRO 19M61/803). Only in 1848 did the final remnants pass into secular ownership (WRO. 19M61/991). Prior to the Reformation, the church and lands had been granted to the Carthusian Order soon after the final Alien Priory Act of 1414 which saw the Abbey of Jumièges relinquish its ownership..

Fig. 1 Extant curvilinear boundary to north and west of Chewton church (Google Earth Imaging).

THE CHURCH LANDS AT THE TIME OF THE DOMESDAY BOOK OF 1066 AND BEFORE

The Domesday Survey of Chewton states that Queen Edith held the manor at the time of the Norman Conquest in 1066 (Thorn, C, & T, 1980). By 1086 it lists the church lands as belonging to the Abbey of Jumièges and comprising a half hide valued at 40s. Costen states that this amounted to two and a half plough-lands, a substantial holding of perhaps of some 300 acres, but representing only a very small fraction of the plough-lands, some forty, available in the rest of the estate. The church lands were occupied by two slaves, two villagers, eight smallholders and eight cottars, with tithes being received from the whole estate, which was clearly valuable and very large by this time (Costen & Osborne 2013).

The earliest documentary reference to Chewton is in the Will of King Alfred. This survives in a number of sources, the earliest of which is 11th century. Dated to between AD 873 and 888 it lists a large number of properties which the king intended to leave to his children and to the Old Minster at Winchester (Sawyer 1968, 1507). Amongst other property Alfred granted:

> '7 ic eom fyrmdig to þam hiwum æt Ceodre þæt hy hine ceosan on þa gerad þe we ær gecweden hæfdon mid þam lande æt Ciwtune 7 þam þe þærto hyrað.'
>
> 'and I request the community at Cheddar to choose him (his son Edward) on the terms we have agreed with the land at Chewton and what belongs to it' (Keynes and Lapidge 1983, 171–8).

Costen comments on the interesting phrasing of the document:

> Everywhere else in the Will, in the description of the property bequeathed, each estate is separated in the text by the word 'and' (written as '7'). This distinguishes discrete properties. The Chewton reference, however, is closely tied in with Alfred's request to the monastic community at Cheddar, stating that the land at Chewton is to belong to Cheddar. It is possible that the arrangement in Alfred's Will was that land at Chewton would go to the *monasterium* at Cheddar at his

death in return for Edward's reception, perhaps in the prayers of the community. Whether or not the transaction took place we cannot tell, but it may also be that the Chewton estate was land which had come into the hands of the king, perhaps being originally the land of a major minster church, and therefore a suitable gift for a monastic community to receive.

Whilst the importance of Chewton in the late 9th century can be inferred from Alfred's Will, archaeological evidence for continuity of settlement from late Roman to the 12th century remained sparse. It was against this background that CAMP embarked on excavations in 2011, which were to prove pivotal in our understanding of the village's beginnings.

OUR ARCHAEOLOGICAL JOURNEY

There were no visible clues as to what lay beneath the rough grassland which had intrigued the author for more than ten years. However, fuelled by the conviction that there might be evidence of occupation, lost in time, a resistivity survey of the field north of the parish church was undertaken and two strong parallel linear anomalies clearly showed as a potential building (Fig. 2).

In 2011 a trial trench across these anomalies revealed substantial wall foundations of up to one metre wide. Sondages dug through the cobble immediately beneath the turf revealed a wrythen-head dress pin (Plate 1), a horseshoe with lobate edges (Plate 2) and medieval pottery of globular jar form suggesting this might be a building dating to the Norman period.

After discussing the implications with the landowners, permission was granted to return on a twice-yearly basis, reinstating the site after each excavation. Chris Webster, Somerset HER Officer, was an early visitor and PRN numbers 31362 for excavations and 31636 for the curvilinear enclosure were assigned, with short reports appearing in the archaeological round-up of the Somerset Archaeological and Natural History Proceedings annually thereafter. Interim Reports for all subsequent trenches were published on the CAMP website (www.camp-plateau.co.uk).

The following account is an overview of the group's excavations of the past 11 years and will focus both on the building remains, and a sample of finds. In general, the author has chosen to focus on the more mundane and yet extremely informative assemblages, in particular the extensive medieval pottery collection. Equally relevant is the good survival of horse equipment giving an insight into activities, status, and date ranges for the buildings. The plotting of the humble finds of door and window furniture has been invaluable in helping to locate entrances and fenestration where little other evidence has survived.

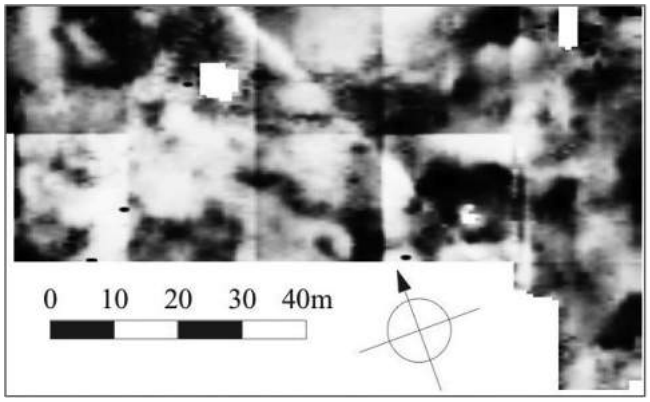

Fig. 2 Resistivity survey of 2010 in the field north of the church showing linear anomalies in centre top square (J. Oswin).

Plate 1 Wrythen-head dress pin (B. Irwin).

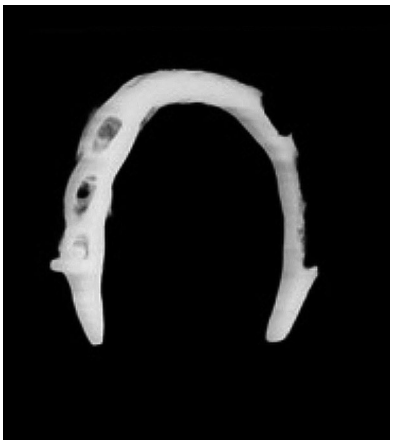

Plate 2 X-ray image of early Norman lobate-edged horseshoe (E. Nabb).

THE BUILDING COMPLEX AND PHASING OF THE SITE

During the past eleven years the stone wall foundations of three buildings have been uncovered (Fig. 3). Most dressed stone and paving and other diagnostic material had been robbed out, making phasing of the complex a problematic task.

- Building A. The earliest structure lying at the east end of the site and aligned roughly north-south/east-west (11m x 15.5m)
- Building B. The main complex of at least two phases: phase one overlying Building A and on a west northwest/east southeast alignment (maximum 17m x 7m) and a later phase of rectilinear construction abutting to the west (19 x 7.8m) (Fig. 4)

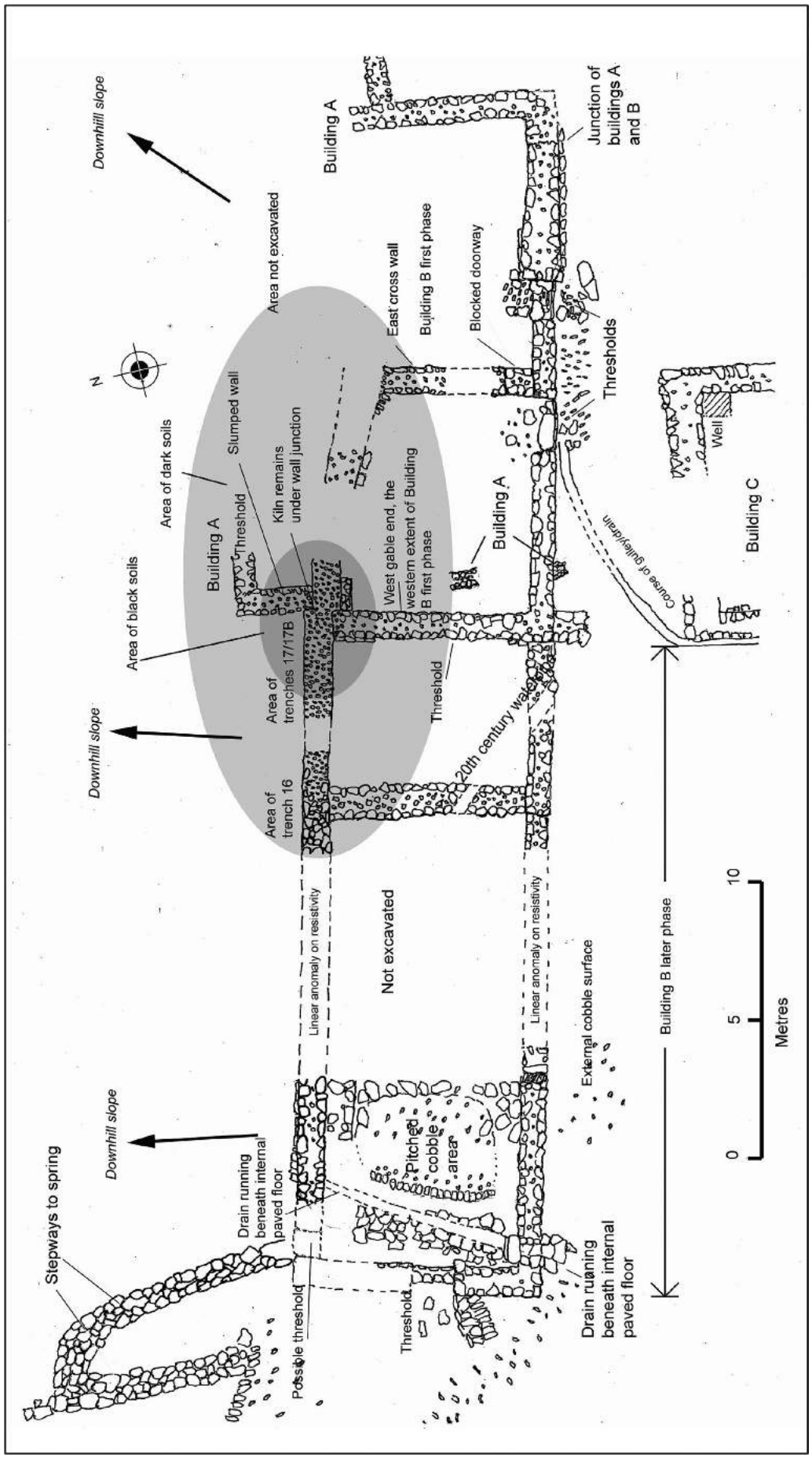

Fig. 3 Composite plan of the foundations of the building complex (P.Osborne).

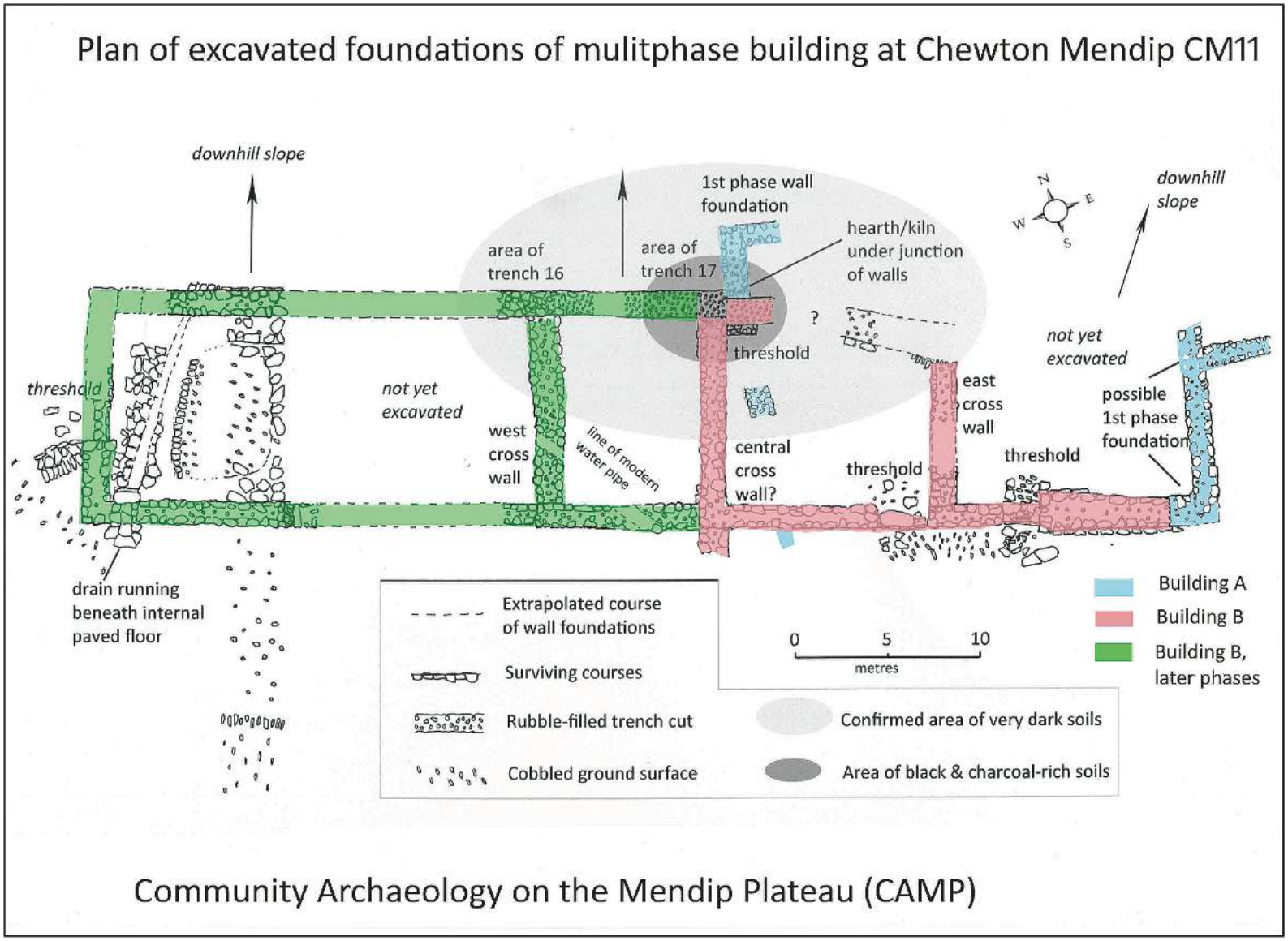

Fig 4 The phasing of buildings A and B (P. Osborne).

- Building C. The further substantial foundations of a building lying to the south of Building B phase 1, on a similar alignment and contemporaneous. Its complete ground plan remains to be excavated but west to east it measures 9m.

Typically, all the wall foundations are of roughly-hewn facing stones with rubble and earth core and virtually no evidence of mortar. They survive from one course to thirteen and of 600mm to 1.2m in width. The standard of workmanship varies throughout the site, most likely reflecting the skills of the masons and availability of stone at the time. Apart from Building A, all foundations lie directly beneath the turf, protected by topsoil and the stone spread of the demolished buildings.

Notable features of the constructions

Building A

Building A's surviving remains suggest a rectilinear plan, in part comprising a boundary wall and best preserved in the northwest and southeast quadrants and illustrated in Fig. 3. The west wall return from the northwest corner had slumped dramatically as a result of being constructed across a soil filled channel. This perhaps demonstrates a lack of understanding of stone building technique at that time (Plate 3).

Its course further south was truncated by a later trench cut for Building B's north wall. Uneven, cobbled, internal flooring, overlain by a demolition layer of roughly hewn limestone blocks, some resembling spiral staircase treads, was a feature of the internal northwest corner.

In the southeast quadrant the quoin stones of Building A's southeast corner had been robbed out, but elsewhere sufficient stonework remained to establish that the 800mm wide east wall, running north, ended abruptly where a field wall appeared to abut from the east. The west return became incorporated in the south wall of Building B where its east/west alignment was adjusted to be in line with the later structure, resulting in a curiously wide section of wall. The internal flooring varied from cobble to compacted soil. Other ephemeral remains of Building A were discovered at a depth of 1m on its west side.

Building B (Phase 1)

Building B's first phase is characterised by a 1m wide west wall, of nine courses, increasing to eleven on the downhill slope to the north (plate 4). Its original function as a west gable end wall is indicated by a stepped out lower foundation on the west face, a feature of outer walls seen elsewhere on the site.

Two remarkably preserved entrances lay on the south side, 2.5m apart, complete with external approaches, internal stepways and cobbled interiors. The more westerly was associated with a northerly cross-wall and blocked internal side door suggesting a former cell-type layout (Plate 5).

The internal floor surface abutting the east face of the west wall comprised large flattish pitched stones as if a support for a former slab floor. One area, tightly packed and of partially dressed stone, hinted at a support for a slab step, presumably robbed out. These stones have been a subject of analysis and are discussed further.

Plate 4 Foundations of Building B's first phase, east face of west gable wall (P.Osborne).

Plate 3 The slumped foundation of Building A looking west (K.Boreland).

Plate 5 Threshold in south wall of Building B's first phase, looking east (P.Osborne).

The north wall of Building B's first phase remains an enigma, with rubble filled trench foundation base, curiously aligned to the southeast and joining the most easterly cross-wall at its northern extent.

Building B (Phase 2)
Building B was extended to the west, the former west gable wall now becoming an interior cross-wall. A further cross-wall division to the west occurred within this new phase. Its insubstantial foundations might have best supported an internal, non-weightbearing wall. Building B's later phase retained parts of an internal slab floor at its west end, absent elsewhere on the site. A stone-lined drain running roughly southwest/northeast took roof water and surface run-off from the south yard, beneath the building, exiting through the north wall (Plate 6).

At some stage, a curious sub-circular revetted, pitched cobble area was laid over part of the slab floor, its purpose unknown but probably agricultural. A feature of the far west wall was a threshold with slab and cobble approach and external step. The quoin stones of both the southwest and northeast corners had been completely robbed out. Two wall-like foundations converging downhill, one springing from the northwest corner, the other from an external cobble revetment two metres to the west, are best explained as walkways leading to a spring, which is still present.

Building C
Building C was an unexpected find and came to light on investigation of a curved wall feature (Plate 7). This proved to be a gulley running alongside its west face, curving around the northwest corner and continuing its course to meet the south wall of Building B, phase 1 at the westernmost threshold, where it ran alongside the building, draining downhill to the east.

Only the northern extent of Building C has so far been excavated, consisting of cobble surfaces interspersed with larger flat slabs. Surprisingly, during investigations, a well was discovered lying partly beneath the building's north wall at the northeast corner (Plate 8). It was crudely stone-lined and had been back-filled in one event and topped with a rough slab surface running beneath the lowest foundation course. The north wall width of 1.2m at this point was surprisingly large, suggesting knowledge of what lay beneath. Building C's life was fairly short-lived, being constructed concurrent with Building B, phase 1, but later demolished during the life of Building B's later phase, with the footprint being laid to cobble to extend the south yard.

This is an unusual archaeological site, in that it appears to have been systematically demolished and neatly levelled, where it has remained virtually undisturbed apart from the insertion of a 20th century water pipe diagonally across the remains, and post-medieval remodelling of ground levels at the east end.

THE GEOLOGICAL RELEVANCE TO THE SITE

Although during the demolition it was robbed of the best building materials, in particular quoin stones and paving slabs, one or two door and window surrounds had remained,

Plate 6 Overhead of drain in southwest corner of Building B later phase (P.Osborne).

Plate 7 Curved gulley to west of Building C (P.Osborne).

Plate 8 Well in Building C (P.Osborne).

plus other diagnostic stonework. These have provided clues to the source of the materials. Jerry Sampson, retired Buildings Archaeology Consultant, offered expert opinion on dressed stone found during excavations, in particular on a block found in a sondage at the internal southwest corner of Building B's first phase. He noted that this was likely to have been 12th century as it was axe-cut, a technique gradually phased out after 1174AD. As it was retrieved from the lowest contexts it was unlikely to relate to the final demolition, but more to the first phase of Building B.

Geologist, the late Professor Desmond Donavan was shown a selection of larger masonry blocks of worked or partially dressed stone. The majority were found as tightly-packed, pitched stonework lying against the lower level of the east face of the west gable end of Building B's first phase, as previously mentioned. These were sited near the above axe-cut block. In conversation with Dr Kay Boreland the following was noted ….'Typically, the stones appear to be derived from the Blue Lias Formation of the Lower Lias Group, and fossiliferous laminae or bedding planes were noted. The blocks are generally a flaggy, slightly muddy limestone, with finely comminuted remains of oysters and bivalves. An attempt has been made to identify the most likely Lias stratum from which these blocks were quarried, based on their fossils, and Prof Donavan suggested that they derive from the early part of the Blue Lias, prior to the end of the Hettangian period.

Dr Boreland explains that Blue Lias is mapped directly underlying the upper southern area of the excavation field, the church and extending west and south of these. The closest mapped surface outcrop is annotated on the 1:10560 scale geological map (field sheet) as 'grey limestone' and lies immediately west of the curved Precinct Boundary west of the church, in a field known historically as 'Pound Paddock' (SHC, WW/DG//Box 9 Nos 8&9).

In the past CAMP has undertaken a resistivity and earthwork survey and a small excavation of Pound Paddock and confirmed the site of a former quarry (Interim Report 14). A trench placed at 90 degrees to the wall-topped bank attempted to locate a possible exterior ditch to the curvilinear boundary. Unsuccessful in this respect, it did establish that wall tumble with soil and grass ingress gave the appearance of a bank at this point. However, the bank and wall feature in other parts of the same field appear far more substantial and it is proposed that quarrying respected the pre-existing boundary. If the stone for Building B's first phase did originate from this quarry, it follows that the boundary predated it.

THE SMALL FINDS EVIDENCE

Further clues to the architecture, usage and dating of the complex can be gleaned through study of the small finds.

Coins

Finds of several medieval coins have helped date the site. These range from a penny of the reign of Henry II (1154–1189), found within a cobbled surface at the east of the site, to an Edward II penny (1307–1326) deposited in the cobble overlying Building C after it had been demolished. A penny of the reign of Henry III (1216–1272) associated with the stepway wall is useful in dating the later phase of Building B.

Door and Window Furniture

The substantial foundations of Buildings B and C would suggest structures of more than one storey, perhaps incorporating timber walls. Finds of large door studs and hinges show that heavy wooden doors were used for main entrances (Plate 9).

No locks were found but several keys could represent casual losses during the buildings' lifetime. Less substantial latch lifters and a latch rest may have belonged to lighter weight internal doors, and window pivots to sites of shuttered openings.

Objects of Everyday Living

There were surprisingly few items of everyday life found. A few ferrous knife blades, some incomplete, survived from within the building complex and broken whetstones could be associated with their sharpening. The wrythen-head dress pin relates to personal attire as perhaps do several buckles, but the latter may conversely have been part of horse harnesses discussed below.

Finds of Equestrian Activity

By far the most frequent small finds were associated with equestrian activity. Horse equipment ranged from bridle parts to leather strap mounts and buckles. A splendid example of a 13th century harness pendant (Griffiths 2004,62), depicting an eagle with snake in its mouth and with coloured enamel adhering, points to this being a site of some status (Plate 10).

Even the more mundane horseshoes and a large collection of horseshoe nails, retrieved, in particular, from the cobbled outer yards lying to west, south and east should not be overlooked. Both shoes and nails fit neatly into a typology, developed by John Clark in his study of finds from medieval London (Clark 2004) with Chewton's collection falling within the date range 11th to 14th century (Plate 11).

Arrowhead tips and two complete heads, one tanged and of type T1 dating from the 9th -11th century, the other

Plate 9 Door hinge (B.Irwin)

Plate 10 Horse harness pendant (B.Irwin).

socketed, of type MP3 with broader date of 10th to 16th century (Jessop 1996) may have had a military connection, but equally offer evidence of hunting practices. The Saxon dates for these items, along with a large assemblage of pottery sherds, the subject of an in-depth study by CAMP, raise the possibility that this site was occupied well before the Norman Conquest.

Clues to the Saxon Origins of the Site

In one discrete area of the site lay a noticeably very dark brown to black soil. This was centred around the main Building B cross-wall junction with the north wall and the northwest corner of Building A (Fig. 3). Excavations in this area revealed the hub of pre-Conquest artisan activity, predating the building complex. The later buildings' wall foundation trenches had cut through the earlier deposits, in part disturbing all but the lowest contexts, which included the remains of a man-made channel, aligned east/west along the contour of the hill and silted up with artisan soils, animal bone and pottery.

Beneath the base of the cross-wall junction was an area of fire-reddened paving, accompanied by small fragments of bluish-tinged to milky white bone, indicative of exposure at high temperature, changing not only the colour but the

Plate 11 Horseshoe nails (P.Osborne).

surface microstructure. Lumps of mortar, in close proximity, provided additional evidence that this had once been the site of a small furnace or kiln. The east/west channel was a possible flue and the compacted fragments of kiln lining and associated mortar, used as later trench foundations, most likely originated from a furnace-type structure.

The purpose of the kiln has yet to be fully established, but a few shards of glass cullet, blue-green and brown in colour, found close-by might suggest glass recycling. Both the cullet and the kiln linings bore striking resemblances to those found at Glastonbury Abbey, the subject of recent reappraisal and attributed to the late 7th to early 8th century, a time associated with the re-founding of the monastery by King Ine of Wessex AD688–726 (Wilmott & Welham 2015, 237–8). A further tiny shard of turquoise blue glass (Plate 12) was redolent of that found in a posthole during excavations at Whitby Abbey and relating to an 8th to 9th century building (Paynter & Dungworth 2021,11).

Furthermore, activity was not restricted to glass working. A ceramic crucible, lying close to the hearth site, was subjected to XRF treatment and found to have traces of gold adhering. Comparisons can be drawn with Cheddar Palace where small crucibles were being used in the 10th century to melt metal for jewellery production (Biek 2012, 256–8). A cupel, similarly placed, underwent EDS treatment to reveal traces of lead, often found as part of the process of silver extraction. At both sites these were accompanied by finds of dross, slag, vitrified fuel ash, iron ore and kiln linings.

For a better understanding of the Saxon contexts, Dr K Boreland took thirteen soil samples including a single topsoil, five of black ashy soils including charcoal, three from the north wall foundation fill and three of natural and subsoil. These were analysed for moisture content, pH value and 11 individual total metals by ICPMS. The results were compared against 'normal background concentrations' for natural soils in the area and previously published analyses for topsoil, and archaeological deposits from the Mendip lead working area (UK Soils Observatory data) (Davies & Ballinger 1990). The results indicated concentrations of lead, zinc and copper, in particular within the black charcoal-rich contexts, in excess of typical values for shallow soils in the area.

However, there was no indication of the gross contamination found in lead slags, ore, or waste deposits as in the Charterhouse area soils and cadmium, arsenic and iron concentrations in the black soils were lower than in the natural deposits. Boreland tentatively concluded that a natural origin for the elevated lead, zinc and copper could be discounted and taken together the cupel and crucible fragments, suggest small-scale smelting and metal processing or working. This could potentially include cupellation of lead ore to extract or assay its silver content, and recycling or refining of existing metalwork including gold (Boreland 2015).

With the evidence of kiln firing outlined above, and the knowledge that the artisan soils contain evidence of metal working, consideration must be given to the origins of some of the artefacts found within these soils. The disturbance of the upper contexts of the black soils by the later trench cuts, had redistributed some of the Saxon finds making for a confusing picture. Sub-triangular ferrous hooked tags associated with dress fastening and dating from the 7th to 11th centuries (Thomas 2009,17) and a latch lifter key (Plate13) of a type associated with Roman locks, but also comparable to one found at Flixborough from a mid to late 9th century context, lay out of chronological context above the internal northeast corner floor of Building A, believed to be of Norman date.

Similarly, a half-annular bead, resembling that found in a 'pagan' Anglo-Saxon cemetery at Blacknall Fields, Pewsey and dated to the early 6th century was also found in an upper context. Pottery sherds in the lowest contexts had a distinctly different appearance to that found elsewhere on the site, with the potential of originating from a period believed to be aceramic. Sherds tend to be chunky with very poorly sorted inclusions, as if using the natural clay with minimal preparation. Some have section edges where the clay appears wavy or very craggy, and this is yet to be fully understood. Four types of stamped ware, of probable 10th century date, have helped define the Saxon area (Plate 14).

To attempt to establish a start date for activity on the site, animal bone was taken from a sealed context within the east/west channel sealed beneath building A, and subjected to C-14 dating analysis, returning a date of AD665–772 cal.

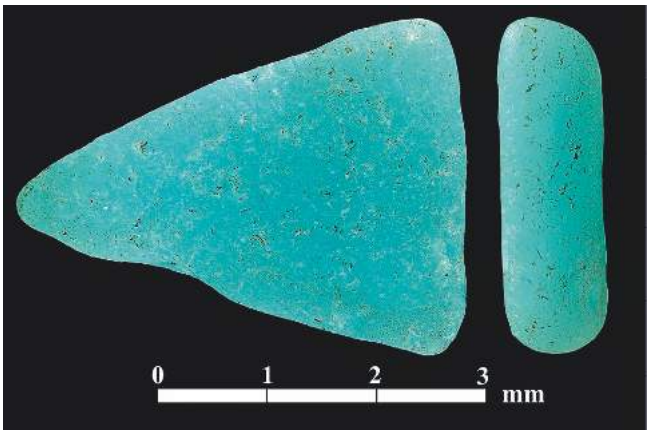

Plate 12 Blue glass sherd similar to that found at Whitby Abbey (B. Irwin).

Plate 13 Latch lifter key (B. Irwin).

Plate 14 One of several stamped wares from the Saxon contexts (B. Irwin).

This was in keeping with a similar sample taken elsewhere in the black soils of AD642–746 cal.

The overall picture raises questions, both about who was undertaking artisan activity in Saxon times and what were the origins of some of these finds? For example, beads occur commonly in early Saxon burials. Could this site have once been an early burial ground? No human bone has been found during the excavations, nor evidence of graves. Did the ferrous latch lifter key directly relate to a possible Roman presence or was it found elsewhere and brought to the site for recycling? Was the distinctly different coarseware pottery made local to the site and what was its purpose and was the stamped ware an expression of status? In an attempt to answer these questions, we must further examine the evidence for the origins of the precinct.

THE ORIGIN OF THE PRECINCT BOUNDARY AND POSSIBLE EARLY MINSTER

Costen has little doubt of Chewton's minster origins, but how early was its foundation and what might be the origin of the curvilinear enclosure? He questions whether it relates to a post-Roman church representing the Old Welsh Christianity of the southwest at that time, later adopted as a precinct boundary for an early Anglo-Saxon Minster.

Whilst the origins of the curvilinear boundary defy explanation, John Blair (Blair 2005,193) proposes the siting of the precinct as typical of a model for early minsters being on a bluff and overlooking a river valley, slightly above the alluvium. He stresses that the boundary was a key element containing the church, often situated towards the south side, as is the case at Chewton. We do not know where the Saxon church stood, but if we accept the argument that the present-day 12th century church is on the footprint of a much earlier church (Sampson J & D 2019), Chewton can be seen to fulfil all the criteria for Blair's model. The archaeological implications are, that within the precinct, one might expect accommodation for priests and their families typically concentrated around the church, with light industrial and agricultural activity at a further distance (Blair 2005,199).

Costen proposes two possibilities for this foundation:

1. That it began as a stand-alone minster with lands which later became the 'parochia' of Chewton i.e. the church lands.

2. That its origins were as part of a large Royal Estate with the minster being founded within a core home estate, which later became the Head of the Hundred, possibly in the early 10th century. It may at first have been the only church in a wider estate, with jurisdiction of the chapelries in outlying areas, but gradually relinquishing its control in late Saxon times. Costen favours the latter scenario.

He proposes that early minsters in this part of Wessex, whose foundations began in the latter seventh century were an attempt to absorb the Old Welsh culture into the burgeoning Anglo-Saxon Kingdom of Wessex and that this was chiefly the work of St Aldhelm, 'Bishop West of the Wood' from 705AD. Hall, in her work on minsters in Dorset, has found a similar trend of Saxon infiltration in the 3rd quarter of the 7th century resulting in the foundation of minsters at the end of the 7th and beginning of the 8th centuries (Hall 2000).

Further evidence for an early minster is in the important role that the settlement played as Head of the Chewton Hundred. It is very common to find minster churches at such places, especially with topographical elements comprising its name.

DISCUSSION

As we have seen, there are several important pieces of evidence, which together make a compelling argument for an early minster foundation at Chewton, notably C-14 dates of 7th/8th centuries for the lowest black soils, and similar dates for comparable kiln use with Glastonbury Abbey. These sit well with Costen's proposal of a foundation in the late AD600s by Bishop Aldhelm, with the artisan activity being a feature of such establishments. Blair's model of early Saxon minsters and precinct boundaries presents a compelling argument for Chewton's early church origins.

The regressive map and survey study by the author is further indication that the site of the excavations belonged to the church in early Norman times and whilst the origins of the precinct remain unclear, it is highly likely that it made an overt statement of Saxon Christianity in a landscape of what was hitherto the Old Welsh tradition. However, one might expect a Celtic saint dedication for the church and St Mary Magdalene does not sit comfortably with other persuasive evidence. An explanation could lie in the rededication of the church, perhaps when it was rebuilt in the 12th century.

The wealth and importance of this site was sufficient for it to be granted to the Abbey of Jumièges who expanded and exploited its potential, resulting in the construction of a substantial stone foundation building complex suitable for their needs. This was a wealthy church estate reflected in its use of glazed-ware pottery. Its status is further emphasised by horses being a regular feature of daily life, not simply for farm use, but for equestrian activities where their equipment

was decorated with ornate and colourful horse harness pendants and other ornaments. The many finds of horseshoe nails may indicate a blacksmith's presence in the vicinity, and it is likely that stabling existed alongside priests' accommodation, farm buildings and other workshops.

Ferrous artefacts represent a broad Saxon timespan and could conceivably have been manufactured on site, rather than recycled from elsewhere, given the discrete areas of hammerscale within the black soils. Their later association with the post-Conquest buildings are typical of everyday living and strongly point to residential occupancy. The half-annular glass bead might have come from a disturbed grave elsewhere and brought to the site for recycling. Afterall, the finds of sceattas and hanging bowl escutcheon represent high status occupation within the area and this could include burials.

The unusually extensive collection of Saxon and later coarseware is worthy of note. The pottery fabrics are many and varied and appear to have played an important role on the site, some conceivably having been made there. The general lack of surface deposits suggests their main function was for storage, however the late Saxon stamped ware was unlikely to have had such a mundane purpose and demonstrates a move from purely workshop to a wider usage pre-Conquest, as part of its transition to a Norman site of significant prosperity.

Whilst under its Jumièges occupancy the ecclesiastical estate prospered, but its ultimate demise was in large part due to the Alien Priory Act of 1414, when the French house was forced to relinquish its ownership. Its departure is reflected in the complete absence of dateable glazed ware pottery from the remaining medieval period. Thereafter a new chapter in the life of the church and its lands began under the auspices of the Carthusian Order, who had minimal presence in the village, choosing to erect their farm buildings elsewhere at Bathway, some half mile to the south.

By good fortune, Chewton's failure both to develop into a major minster church, coupled with limited settlement expansion over the centuries, has resulted in the site remaining as pastureland, with only minor disturbance in the 20th century, thus preserving the remarkable archaeological remains.

CONCLUSION

The excavations represent 11 years of painstaking research by the author and members of CAMP. Whilst excavations have concluded, work continues, both on analysis and on putting the site into a wider historical and archaeological context. A final report is planned where it is hoped that the various assemblages discussed will provide an important archive for further study.

Abbreviations used in text

Scientific
EDS – Energy Dispersive X-ray Spectrometry
ICPM-S – Inductively Coupled Plasma Mass Spectrometry
Societies
BACAS-Bath and Counties Archaeological Society
SANHS-Somerset Archaeological and Natural History Society
Repositories
PRO Public Record Office
HER Historic Environment Record
SHC Somerset Heritage Centre
WCL Wells Cathedral Library
WRO Winchester Record Office

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EXCAVATIONS AT STOKES CROFT, BRISTOL, 2019

By Bruce Williams

SUMMARY

The site sits astride the city boundary dividing Bristol from Gloucestershire. During the Civil War the highway to Gloucester passing through Stokes Croft was blocked by a 'Traverse or high forework' with an 'openport or gate of strong barrs of timber on its east side, overlooked from the south-east by a double ravelin or spurre', all this according to a description of the defences around Bristol recorded at the time of the first assault in 1643, by the king's engineer, Bernard de Gomme. Archaeological evidence is provided for a double-ditch construction opposite the main Bristol to Gloucester road, perhaps connected with the aforementioned "forework". Two burials within one of the ditches, dated by association with clay-tobacco pipes, and numerous horse shoes provide clear evidence of the conflict.

INTRODUCTION

After two desk-based heritage assessments and trench evaluations behind Westmorland House, the former J Perry and Sons Carriageworks showroom on Stokes Croft and Nos 2 and 4 Ashley Road, Bristol, a brief was issued by the local planning authority for Bristol City Council, for targeted archaeological excavation prior to redevelopment of the site. The primary aim of the fieldwork was to mechanically strip a predefined area (Area 2) and re-examine one of three evaluation trenches dug at the site in 2007 and reported on by the excavator to have contained a defensive ditch of Civil War date (Ducker 2007). Further archaeological fieldwork at the site in 2009 disputed that interpretation, dismissing what had been found in 2007 as being the construction trench for a wall of 18th century date (Brett 2009). The latest and final phase of archaeological fieldwork at the site discussed in this paper (see below, Area 2) confirmed the original interpretation of a ditch in one of the trenches.

A further aim of the fieldwork was to try to identify through excavation a triangular plot of land which had been identified in the historic map record, which it had been suggested could possibly form the fossilised outline of a Civil War 'spurwork' (Leech 2006), The final aim was to record any remains of the 19th-century carriageworks (Area1 and Area 3), although the results of that work is not reported on here. The excavation was carried out between 14th– 30th May 2019.

HISTORICAL BACKGROUND

Historically the site is located in the parish of St James Without, part of Barton Regis Hundred in Gloucestershire. Stokes Croft was originally known as Berewyke's Croft, and formed an agricultural holding outside the town of Bristol. The current name may have derived from John Stoake, mayor of Bristol in 1364, 1366 and 1379. The land was then part of the lands owned by St James's Priory, a cell to the Benedictine monastery of Tewkesbury. In 1539, the abbot and convent of Tewkesbury, perhaps seeing the inevitable dissolution of their abbey and its daughter houses, and perhaps fearing the closure of St James's Priory, leased the St James's Priory buildings, properties, revenues and some 48 acres of pasture and 105 acres of arable land to Sir Anthony Kingston (Jackson 2006, 12). In 1544 Sir Anthony Kingston assigned the residue of the terms of his lease, the priory and its lands, to Henry Brayne, a merchant taylor of London, the agricultural land being farmed by leaseholders.

The first recorded mention of a route through the area is from 1579, when it is noted that Stokes Croft consisted of a field containing a lodge, garden and pasture and a footpath that ran through it, although it is considered likely that a route through the area existed before this date (Stokes Croft Conservation Area 19: Character Appraisal, Bristol City Council, 2007).

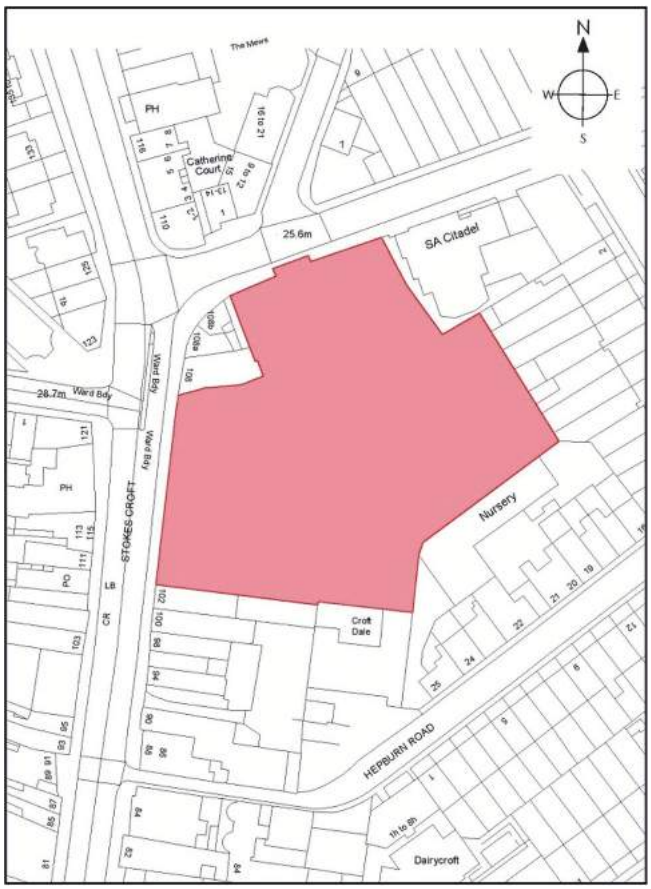

Fig. 1 Site location, scale 1:750 at A4.

Arguably the middle of the 17th century was a significant period in this country's history. The political alignment of Bristol during the turbulent years of the English Civil War between 1642 and 1647 was, at least early on, one of neutrality and has been discussed elsewhere and will not be repeated here (Lynch 1999, McGrath 1981, Russell 1993, Saunders 2004), The impending conflict between king and parliament and the strategic importance of Bristol, led to Bristol Corporation not only repairing the decaying walls of the castle and town, but in constructing north of the Rivers Avon and Frome, over 3 miles of earthwork defences and forts, linking up the hills that overlooked the city. This work was continued by the Parliamentary forces after they had been admitted to the city at the end of 1642, and was continued after 1643 by the royalists under Prince Rupert and his military engineer, Bernard de Gomme. Beginning west at the Water Fort below Brandon Hill on the northern bank of the River Avon, the new defences extended across Brandon Hill, up to Windmill Fort (later Royal Fort), across to Prior's Hill Fort, down the hill to Stokes Croft Work and south to meet the river Avon somewhere close to Tower Harratz which stood on the opposite bank of the river (Fig. 2)

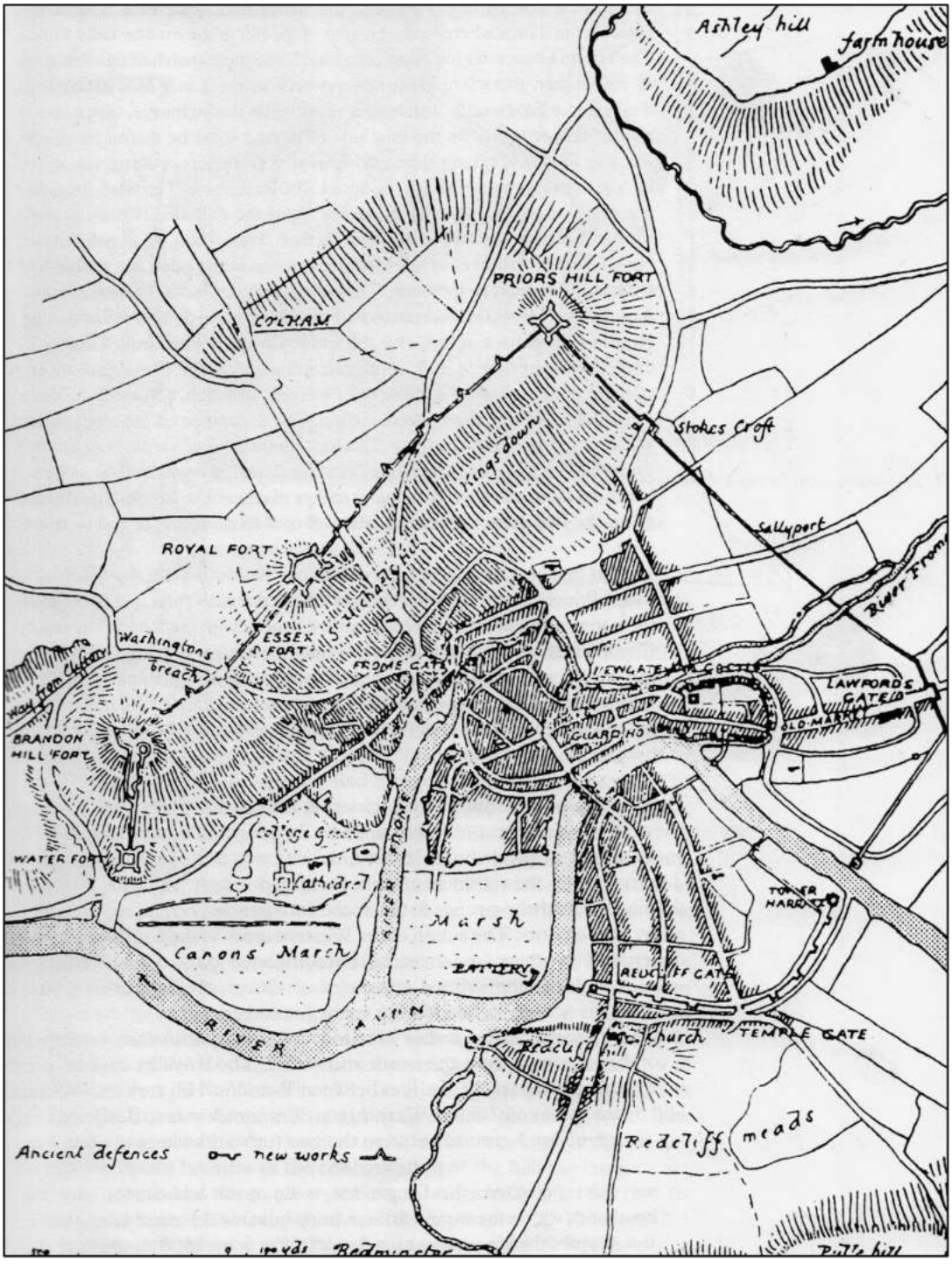

Fig. 2 Sketch of the Civil War Outworks, Bristol (after Turnor, 1803).

The location of the '*Stokes Croft Work'* built to control the road into Bristol from the north and thought by some writers to lie close to the junction of Stokes Croft with Ashley Road would have played an important role during the troubles. In Figure 2 (above), reproduced from a paper presented in 1801 to the Society of Antiquaries of London and published in Archaeologia XIV (1803), the defensive line is clearly drawn as running south of the Ashley Road junction. However, there is some disagreement as to the actual route the defences took on its path east of Priors Hill Fort, and this is discussed further below.

A contemporary account of the defences in 1643, attributed to Charles 11s military engineer, Bernard de Gomme, described the defences below Prior's Hill Fort at Stokes Croft (note, de Gomme provided no plan of the fortifications of Bristol)….'*within Little more than a half musket shot of Priors fort, there is a great Spurrworck in the Line, & a strong high Traverse, or Fore work, watching and shutting up the highway, with a strong port of timber barrs on the East side of it* (Firth 1925).

Fast forwarding to the 18th century, Rocque's 1750 map of Bristol shows much of the area to the south and east of the excavation site laid out as garden nurseries or market gardens, although he also shows a terrace of buildings on Stokes Croft, with a single building on the corner of Stokes Croft and Ashley Road. In 1787 the parish of St Paul's was created following pressure to create a new residential suburb for Bristol, the first in Bristol. By the time of Ashmead's 1828 survey of Bristol, Nos 2 and 4 Ashley Road are depicted, set back from the road and backing onto the old city boundary which crossed the site from west to east, with the area to the south still shown as nurseries. By Act of Parliament in 1835 the outparish of St Paul was created.

Ashmead's 1855 survey records significant changes, with the earlier nursery fields now built upon and buildings connected with the 19th-century carriageworks of J Perry and Sons occupying much of the site.

FIELDWORK METHODOLOGY

The excavation undertaken in 2019 was assigned Bristol City Museum accession number BRSMG 2017.119. All the records from the project bear these numbers and will be deposited with Bristol Museum and Art Gallery for long-term storage. All archaeological features were recorded using a continuous numeric recording system. The assignment of context numbers was as follows.

Context Number	**Area**
100 – 103	Area 1
200 – 266	Area 2
300 – 304	Area 3

THE EXCAVATION

Area 2

The main focus of the excavation was Area 2 located behind Nos 2 and 4 Ashley Road. It extended east towards the Salvation Army Citadel and south as far as the north wall of the recently demolished Westmorland House, forming an irregular polygon measuring in extent 27m east-west

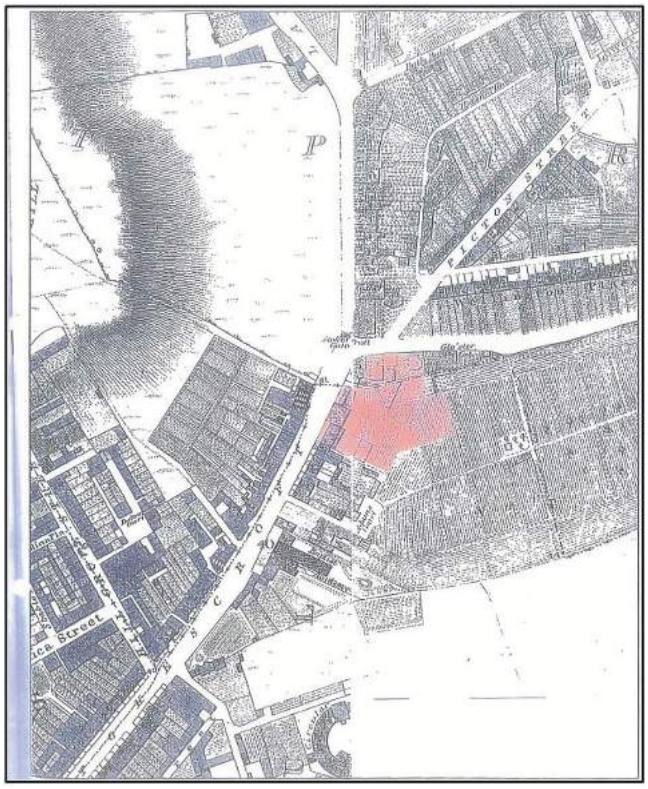

Fig. 3 Extract from Plumley & Ashmead 1828 plan. Area of excavation outlined in pink.

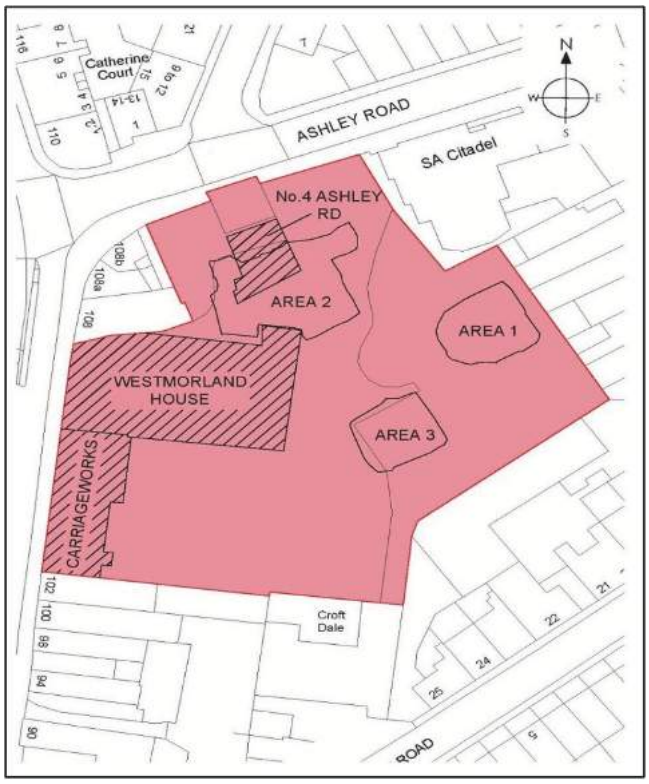

Fig. 4 Plan showing the location of Areas 1, 2 and 3, former Carriageworks, Westmorland House and No 4 Ashley Road.

Plate 1 Aerial view of Area 2 taken by drone on 21 May 2019. Tent in centre of image covers grave 2. No scale.

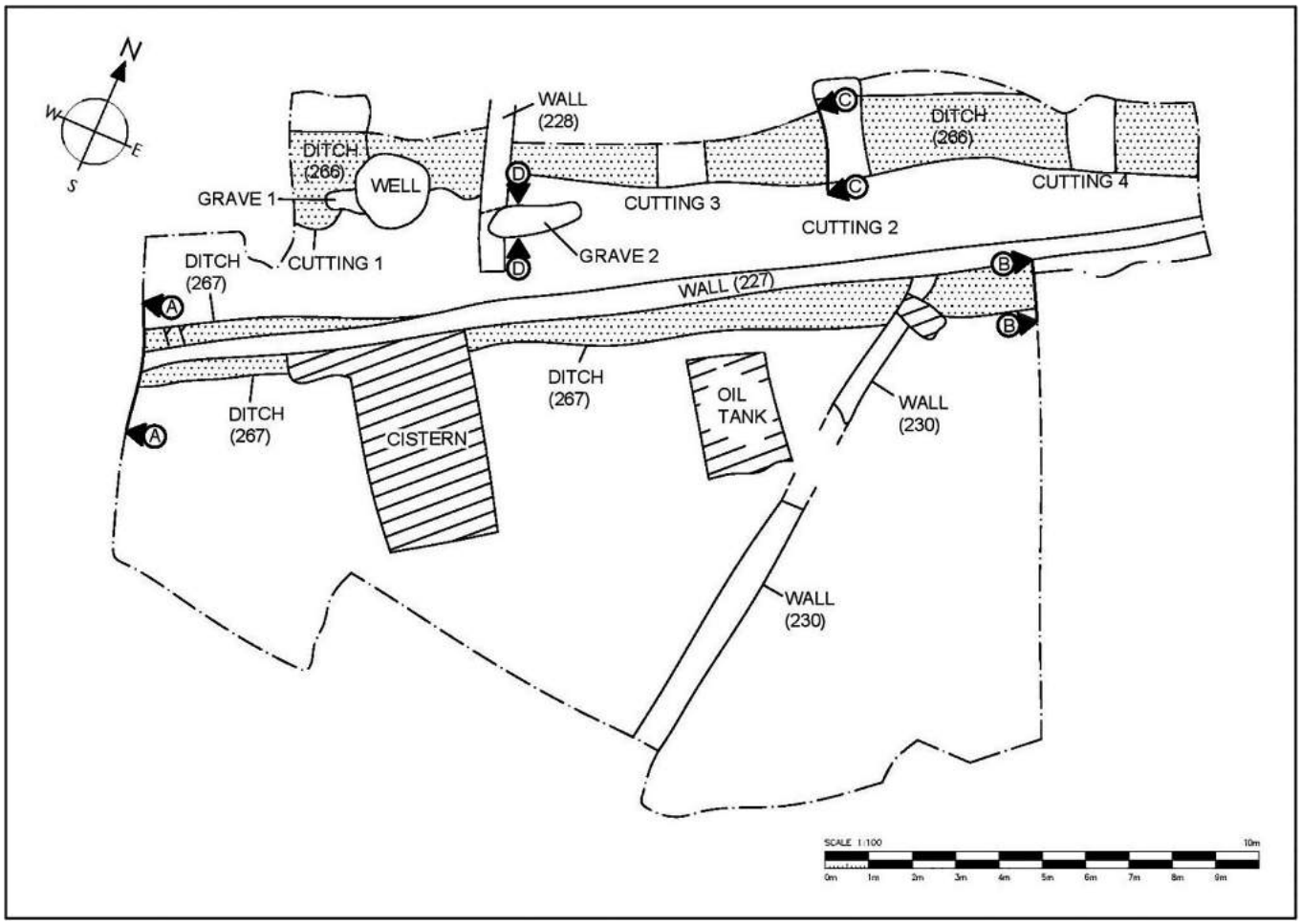

Fig. 5 Section A-A across ditch 267 and wall 227 looking west.

by 19.50m. north-south. Following bulk excavation using a 14-ton mechanical excavator, extensive deposits of late post-medieval made-ground and recent demolition material were removed, the latter connected with the demolition of No 2 and No 4 Ashley Road, No 4 Ashley Road having been demolished a few months before the excavation.

Extensive damage to potential archaeological deposits was shown to have occurred when the properties on Ashley Road were built late in the 18th or early in the 19th century, and certainly before Ashmead's 1828 map of the city was compiled, which depicts Nos 2 and 4 Ashley Road (Fig. 3). The general elevation of the site after the partial removal of the rear of these properties, including cellars, was some 1.60m below that of Ashley Road and 0.75m below the general truncated level of the natural geological marl as subsequently recorded across the site.

Area 2 was divided in two by an east–west oriented wall (227) which had formed the rear boundary of the properties on the south side of Ashley Road. Beyond this wall the surface of the geological substrate, a firm orange/brown marl, lay at between 24.57 and 25.31m above ordnance datum.

Running the length of Area 2 and lying beneath and almost parallel with wall 227 was an east-west oriented ditch (267). At its widest, this ditch was 1.9m across, although when originally dug from a higher elevation it would have been wider than this, but most of its northern side was truncated when Nos 2 and 4 Ashley Road were built. The ditch was examined in two cuttings at either end of Area 2, and was clearly visible on the exposed excavation surface for a distance of 24m. In the westernmost cutting, against the west section of Area 2 (see Fig 6, Section A-A), the inner, south face (scarp) of the ditch was shown to have an inward slope of about 40 degrees. It was dug through a layer of subsoil (244) into the natural Keuper marl (201), with the displaced subsoil (243) deposited against the inner lip of the ditch in the form of an an earthen bank. The maximum depth of the ditch at this point was 1.23m and it appeared to have a slightly rounded base. The primary fill was a shallow layer of firm, orange/brown clayey silt (235) which was overlain with a layer of fairly firm, dark-brown friable, very silty clay, heavily flecked with charcoal (236). These two layers contained sherds of late 17th century tin-glazed earthenware and Somerset wares dating from the late 17th to early18th century. The rear wall of Nos 2 and 4 Ashley Road (Wall 227) sat over deposit 236.

The easternmost cutting across ditch 267 was a deliberate, partial re-excavation of the 2007 evaluation Trench 1 to re-assess the findings. In this cutting, the southern (inner) face of the ditch (Section B-B, Fig 7) was

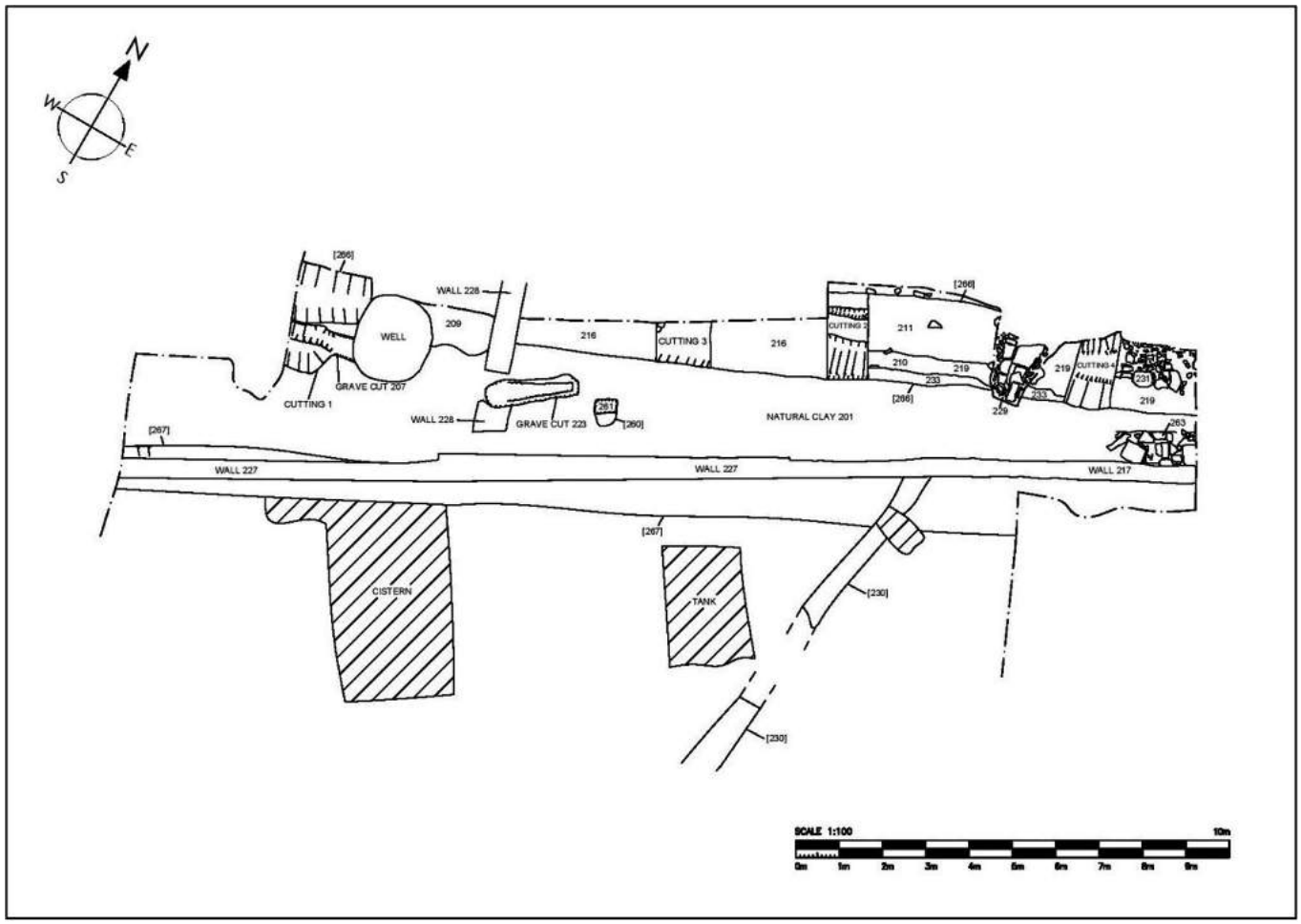

Fig. 6 Section B-B across ditch 267 and wall 227, looking east.

Plate 2 General view of Area 2 looking west.

shown to have a slight concave appearance, with an angle of about 40 degrees and had been cut into the natural marl. The primary fill in the ditch base was a layer of friable, dark-greyish/brown clayey silt, flecked with charcoal and coal dust (251). An examination of the ditch deposits in section failed to retrieve any dateable material, but layer 251 does correspond with the previous excavator's layer 130 found within their Ditch 125, which was dated on ceramic grounds to the 17th/18th century (Gutiérrez 2007).

The east-west wall (227) that formed the boundary behind Nos 2 and 4 Ashley Road utilised the pre-existing ditch (267) as a convenient construction trench. It was built off-centre in the ditch bottom on a layer of accumulated clayey silt (236/251), of Lias limestone bonded in off-white lime mortar. What remained of the open ditch was backfilled up to the face of the wall.

Just 2m north of ditch 267 lay another, parallel ditch (266). This was investigated in four cuttings (Cuttings 1–4) and assigned cut numbers 204, 210, 215 and 220. It lay partly beneath a basement for No 2 Ashley Road and, in the eastern half of Area 2, by up to 1.6m of made up ground (200). It measured 2m across and had a maximum surviving

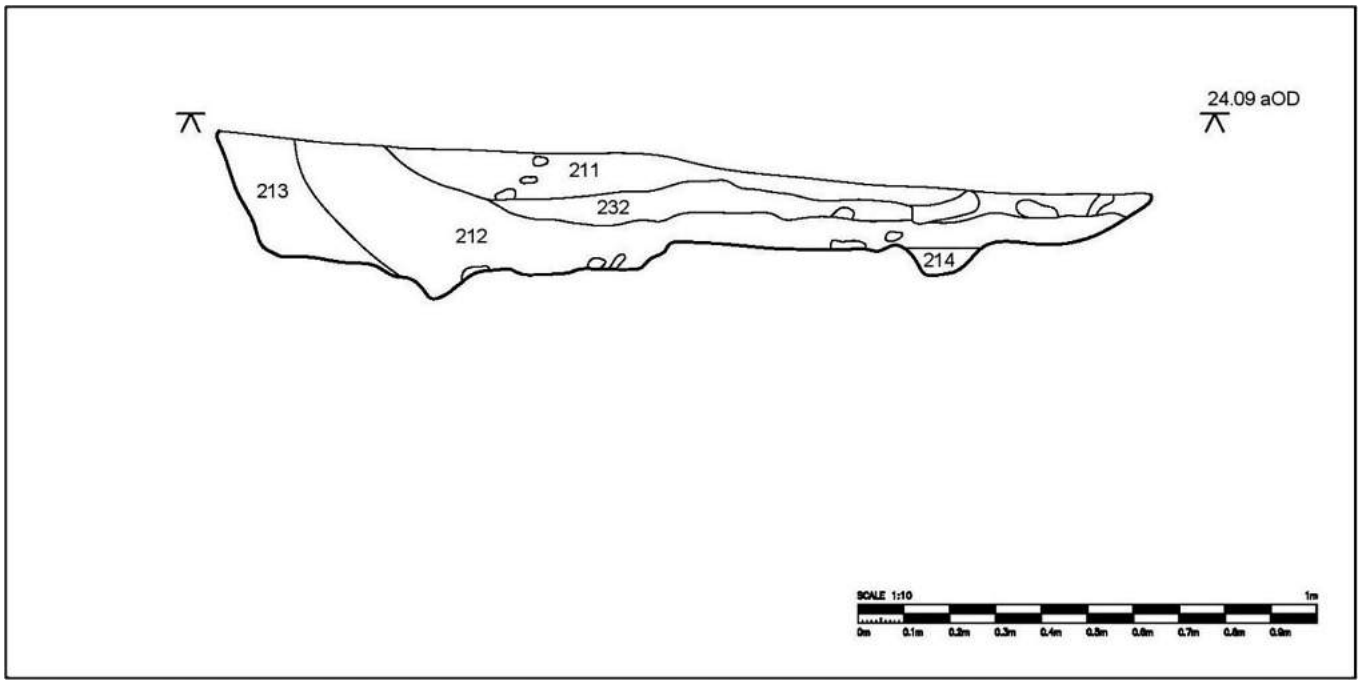

Fig. 9 Section C- C across ditch 266, looking west.

depth of only 0.53m, but it would clearly have been wider and deeper than this when originally dug. The fill of the ditch within each cutting was slightly differing deposits of mid-brown to reddish/brown, firm, silty clay (202, 206, 211–218, 221, 222, 226 etc.). Pottery sherds obtained from some of these deposits were dated between the 16th – 18th century. The uppermost fills in the ditch (216 and 219) were a very firm, dark-grey/black sandy, clayey silt, containing slate and coal fragments.

Cut through the base of the ditch was a coffin grave (grave 1, cut 207), with another (grave 2, cut 223) lying 2 meters away and close to the southern edge of the ditch in what would presumably have been an area of berm between the two ditches.

Grave 1 (cut 207) was roughly rectangular in shape and what survived of it had a depth of 40mm with near vertical sides and a flat base. The remains of a skeleton within the grave cut was identified as a male in his mid-20s – mid 30s. Only 25% of the individual was present, representing part of the lower half, the upper half having been truncated by a stone-lined well in the basement of No 2 Ashley Road. When uncovered by the mechanical excavator, the well was empty for some considerable depth and for safety reasons it had to be backfilled immediately. As mentioned above, the upper, half of the skeleton was missing, including the skull, but when buried it would have faced west (see human remains report below for a full analysis of the skeleton). The grave fill of brown silty clay (208) contained a clay pipe stem and a small, unmarked clay tobacco pipe bowl dated from *c*1630 to *c*1650.

Grave 2 (cut 223) was 40cms deep and lay partly beneath the west wall of No 4 Ashley Road (Wall 228). After the removal of a homogenous fill of red/brown and dark- greyish-brown soil (225) from above the skeleton, clearly visible within the grave cut was the outline of a six-sided wooden coffin. It measured some 0.47cms across at the western (shoulder) end and 0.22cms at the eastern (feet) end and where fragments of the base of the coffin survived, the wood was identified as oak. The skeleton was 75% complete, lay facing east and was identified as a female between the age of 30–45 years (see human remains report below for a full analysis of the skeleton).

The grave fills (context 248 lower and 225 upper) contained several small iron nails and, in 225, the stem fragments and a small, heeled, unmarked clay tobacco-pipe bowl dating from *c*1630–*c*1650.

Ditch 266 lay partly beneath an undated intermittent layer of limestone rubble (231), the stones bonded with greyish/white lime mortar. Recorded in plan at the eastern end of Area 2, the same layer may also have been present at the western end of Area 2, visible in section beneath the basement of No 2 Ashley Road, at a depth of some 1.5m below the modern-day ground level. Perhaps dating to the late 18th/early 19th century, no clear explanation can be given as to the function of the limestone rubble, other than possibly a stabilisation layer for the new buildings being constructed behind Ashley Road. Other remains included a limestone gout drain (263) which ran along the north side of Wall 217. It housed a ceramic sewer pipe as a later addition, and smaller diameter clay pipe inlets through the exterior of wall 217 probably served external WC's connected with Nos 2 and 4 Ashley Road.

Wall 230 that formed the eastern arm of the triangular plot of land identified from cartographic sources and thought to possibly represent the fossilised outline of a Civil War outwork was built against the southern face of Wall 227 and clearly post-dated its construction. It was built to a shallower depth than wall 227, had no visible construction

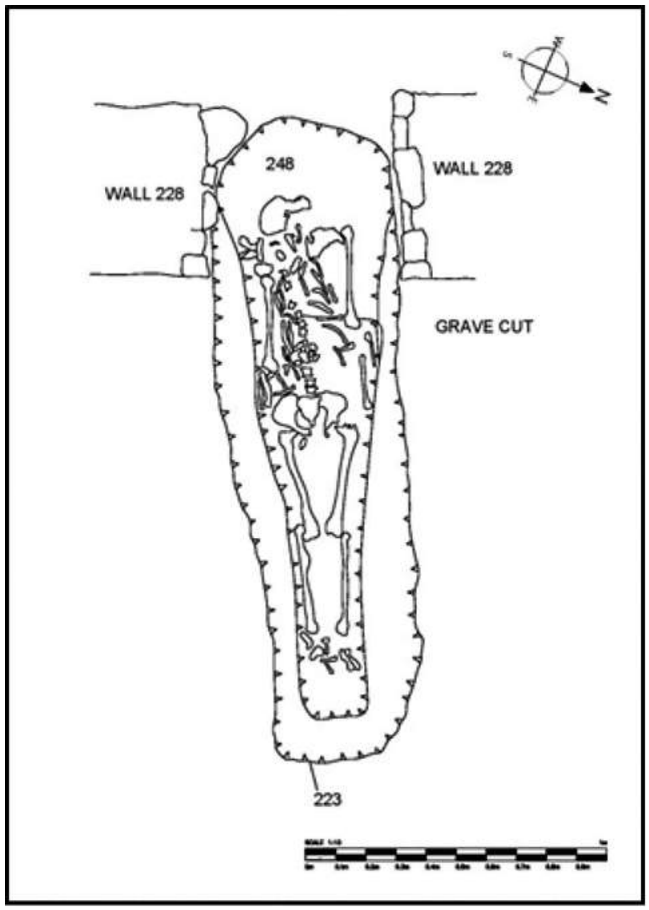

Fig. 10 Grave 2 detail within cut 223.

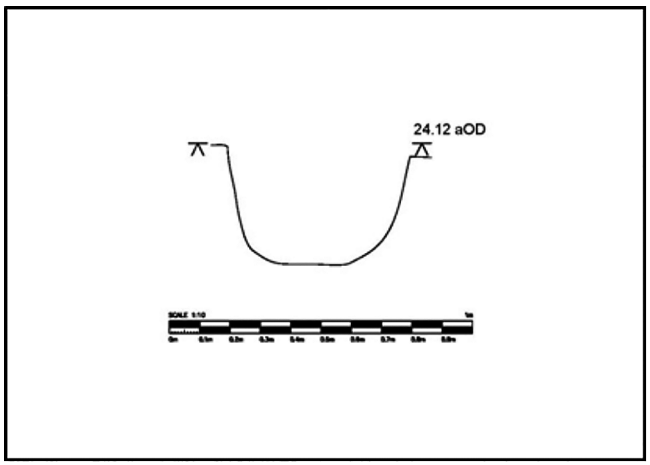

Fig. 11 Profile across grave cut 223. 223.

trench and was of Lias limestone rubble construction, with a bonding of off-white lime mortar.

THE FINDS

All the finds came from Area 2 and these are discussed below. All metalwork was x-radiographed and stabilised before being repackaged for long-term storage.

The Pottery By Alejandra Gutiérrez

The stratified pottery assemblage totalled only 46 sherds weighing 0.9kg. It was examined by eye, sorted into fabrics and weighed. The totals by context are included in Table 1. All the pottery bar a single sherd is composed of post-medieval wares of the 17th century onwards. They include typical fabrics found regularly in the city, such as sgraffito and plain lead glazed wares from Somerset, local slipped hollow wares, and also glazed wares from North Devon. A little later are the modern lead-glazed wares of the types manufactured at local tileries, and the delft or tin-glazed vessels of the 18th century. An earlier; tin-glazed example has a lead-glazed exterior surface and dates from the late 17th century.

A single medieval sherd was found in context 222 and is of a local Ham Green jug type of the 12th to mid-13th centuries.

The assemblage consists or small sherds and few diagnostic sherds. Nevertheless the repertoire of forms comprises exclusively domestic forms, such as dishes and bowls, ointment pots, cups, jars and jugs.

A group of sherds are burnt, in some cases through the whole body, and it was not possible to identify these to fabric types.

The Clay Tobacco Pipes By Reg Jackson

Introduction and Methodology

The clay tobacco pipe assemblage was examined to assess its potential for future work. In considering this potential due regard was given to the needs of site interpretation and dating and to similar material already studied and published locally and nationally.

Where possible the pipes have been dated by the use of the general bowl typology developed by Oswald (1975) which has been refined by further research into pipe production in Bristol (Jackson & Price 1974). A relatively close date for the manufacture of a particular pipe can be achieved by this method. However, where a large part of the bowl is missing or its typology cannot be determined, then only a wide date range – or perhaps no date at all – can be given.

The position, type and style of a pipe maker's mark are often indicative of a likely date and place of manufacture. It is then possible to assign the initials or full name on the mark to a particular pipe maker whose working dates have been determined by documentary research. All the pipes found at Stokes Croft were made in Bristol and the pipe makers working in the city have been extensively researched (Price & Jackson 1979).

No attempt has been made to date the pipes using the stem bore diameter formula developed by Harrington and Binford. That dating method requires a very large assemblage of pipes and it has also been demonstrated to be inaccurate, especially for pipes made during the 17th and 19th centuries (Noël Hume 1982, 121–122).

The Clay Tobacco Pipe Assemblage

There were 33 clay pipe fragments from 13 contexts. Seven of these were pipe bowls or bowl fragments, although one bowl fragment was too small to be dated. There were no decorated or marked pipe stems. The unmarked bowls are typical of the forms produced in Bristol.

The clay pipes date from the early 17th century to the late 17th century with none from the 18th and 19th centuries.

Context 208 (fill of grave 1)
One stem fragment and a small, heeled, unmarked bowl dating from *c*1630 to *c*1650.

Context 224 (upper fill of grave 1)
A fragment of a heeled, unmarked bowl and a spurred bowl dating to the late 17th century.

Context 225 (fill of grave 2)
Seven stem fragments and a small, heeled, unmarked bowl dating from *c*1630 to *c*1650.

Context 226 (fill of Ditch 266)
A small, heeled, bowl dating *c*1660 to *c*1670.

A small, heeled bowl with the initials 'WC' with swags above and below, all incuse on the heel. Probably made by William Cissell, working in Bristol from 1661 to at least 1670.

Context 236 (fill of ditch 267)
Five stem fragments and a bowl, with heel or spur missing, with the initials 'RT' incuse on the rear of the bowl. Late 17th century in date. Made by either Robert Tippet I or II, father and son, who were working in Bristol between 1660 and at least 1722.

Context 237 (fill of ditch 266)
A small, heeled, bowl dating to the first quarter of the 17th century.

The Small Finds By Bruce Williams

A total of twenty-four small finds were found, all from Area 2. These were all of iron and comprised 14 nails, two narrow, flat strips, and three complete horse shoes and parts of three others. Seven of the nails and a flat, pierced strip came from fills within grave cut 223 and may have been part of the oak coffin identified within the grave cut. All the small finds were x-radiographed and some of the finds drawings and

Context	BPT	Fabric	date	Form	Sherds	Gr	MNV	rims	bases	handles	exterior surface	interior surface	comments
202	BPT 96	Somerset lead glazed	16th-18thC	dish?	1	13	1	1					lost interior surface
202	BPT 96	Somerset lead glazed	16th-18thC		2	102	2				0	green glaze	
202	BPT 96	Somerset lead glazed	16th-18thC	jar	1	23	1	1			dark green glaze	dark green glaze	
202	BPT 100	Bristol/Staffs slip hollow wares	late 17th-18thC	cup?	1	3	1					reversed slip	
211	BPT 96	Somerset lead glazed	16th-18thC		1	18	1		1		0	green glaze	burning marks from cooking
212	BPT 96	Somerset sgraffito	17th-18thC		1	15	1					all over white slip under glaze	
212	BPT 112	North Devon gravel-tempered wares	late 17th-18thC	bowl	1	141	1	1			0	green glaze	
213	BPT 96	Somerset lead glazed	16th-18thC	bowl/dish	2	23	1				0	brown	
216	BPT 96	Somerset sgraffito	17th-18thC	dish	1	67	1	1			0	brown; trailed white slip	
216	BPT 96	Somerset lead glazed	16th-18thC		5	71	5				0	green glaze	
216	BPT 112	North Devon gravel-tempered wares	late 17th-18thC		1	8	1				0	very dark green glaze	
219	BPT 96	Somerset lead glazed	16th-18thC	jar	1	50	1		1		0	green glaze	
219	BPT 112	North Devon gravel-tempered wares	late 17th-18thC	jar	2	96	1						
219	BPT 100	Bristol/Staffs slip hollow wares	late 17th-18thC		1	6	1				light yellow glaze	light yellow glaze	
222	BPT 26	Ham Green jugs	12th-mid 13thC	jug	1	39	1			1	green glaze	0	
222	BPT 277	import?	16th-17th	jug	1	7	1			1			tiger' glaze
222		unidentified		dish	1	15	1				0	white glaze	burnt throughout; tin glazed with a ?blue line
224		unidentified		dish	1	2	1				0	white glaze	tin glazed waster? with glaze over the broken edge
225	BPT 99E	early tin glaze	late 17thC	charger	2	15	1				transparent	white glaze; yellow, blue and purple decoration	
225	BPT 96	Somerset lead glazed	16th-18thC		1	5	1				0	green	
225	BPT 112	North Devon gravel-tempered wares	late 17th-18thC		3	13	3				0	green	
225		unidentified			1	9	1				burnt	burnt	
235	BPT 96	Somerset sgraffito	17th-18thC	dish	1	7	1				0	trailed slip	joins 216?
235	BPT 96	Somerset lead glazed	16th-18thC	collared jar	1	29	1	1			0	green glaze	
235	BPT 96	Somerset lead glazed	16th-18thC		1	7	1				0	dark green glaze	
236	BPT 99	English tin glaze (blue decoration)	18thC	jar	1	23	1				white and blue lines	white glaze	
236	BPT 99	English tin glaze (blue decoration)	18thC	ointment jar	4	22	1	1	2		white glaze	white glaze	
236	BPT 264	Modern redware	18th-19thC	jar	3	64	1	1			0	brown glaze	
236		unidentified		jar	1	5	1				0	0	
251	BPT 100	Bristol/Staffs slip hollow wares	late 17th-18thC	cup	1	16	1				feathered slip	0	
265	BPT 96	Somerset lead glazed	16th-18thC		1	4	1				lost surface	brown glaze	
TOTAL					**46**	**918**							

Table 1 List of pottery types by context.

descriptions of the objects relied heavily on these as a guide to what lay beneath the corrosion.

Catalogue

1. Nail. Rectangular section shank. Length 4.5cm, width of head 1.4cm. Context 248, SF 1, grave 2.
2. Nail. Rectangular section shank, round head. Length 8.2cm. Context 219, SF 2.
3. Strap. Flat, one end rounded. Length 5.7cm, width 0.7mm. Context 219, SF 4.
4. Nail. Rectangular shank, small, flat head. Length 2.3cm. Context 213, SF 7.
5. Horseshoe. X-ray shows three rectangular nail holes on each side and parts of two in-situ nails. Slight calkin visible. Width 10.3cm, Length (from heel to tip) 10.8cm. Context 213, SF 5.
6. Nail. Rectangular section, indistinct head. Length 13.4cm, width 1.4cm x 0.4cm. Context 213, SF 8.
7. Nail. Incomplete rectangular shank, square slightly domed head. Length 5.4cm, width of head 0.7cm. Context 222, SF 13.
8. Nail. Rectangular shank, square, slightly pointed head. Length 5.8cm, head 1.1cm x 0.6cm. Context 224, SF 14, grave 2.
9. Nail. Rectangular shank, flat, rectangular head. Length 5.3cm, head 1.0cm x 0.8cm. Context 236, SF 23.
10. Horseshoe. X-radiograph shows four rectangular nail holes on each side and parts of three in-situ nails. Slight calkin. Width 11.4cm, length (from heel to tip) 12.2cm. Context 226, SF 9.
11. Nail. Rectangular shank. Length 5.7cm, width 0.8cm. Context 211, SF 24.
12. Strap/mount. Partial holes at each end. Length 7cm, width 1.1cm. Context 225, SF 18.
13. Nail. Incomplete rectangular shank, large, square, domed head. Head width 5.6cm. Context 214, SF 21.
14. Incomplete horseshoe. One in-situ nail. Slight calkin. Context 226, SF 10.
15. Horseshoe. X-radiograph shows three nail holes on one side and four on the other. Width 11.3cm, length (from tip to heel) 12.9cm. Context 200, SF 12.

THE HUMAN REMAINS

By Heidi Dawson-Hobbis

Introduction

Two skeletons, one complete and one partial were analysed by the writer. These have been interpreted by the excavators to date from the seventeenth century and they, unusually, appear not to have come from a cemetery context.

Methods

The information recorded included: preservation, age at death, sex of the individual, metric and non-metric data, and any evidence for palaeopathology. Preservation was recorded as good, medium or poor and the percentage of the skeleton present was recorded as <25%, 25–50%, 50–75% or >75% complete.

The methods of ageing used (where possible) were, dental eruption and wear (Brothwell 1981), age related changes of the pubic symphysis following the Brooks & Suchey (1990) method, age related changes of the auricular surface of the os coxae using the methods of methods of Lovejoy *et al*. (1985) and Chamberlain and Buckberry (2002), cranial suture closure using the method of Meindl & Lovejoy (1985) and age related changes to the sternal rib ends using the method of Iscan (as cited in Bass 1995).

Assigning sex to adult skeletons is relatively straight forward when the most sexually dimorphic elements of the skeleton are present such as the pelvic bones, skull and mandible (Mays 1998; Schwartz 1995; Buikstra & Ubelaker 1994; Brothwell 1981). When these are not present it is possible to assign sex from measurements taken on certain elements as size can also be an indicator of sex (Bass 1995).

Metrical data was recorded for the crania according to Wright (2012) and postcrania according to Buikstra & Ubelaker (1994) and Brothwell (1981). Cranial non-metrics were scored as Berry & Berry (1967) and Hauser & De Stefano (1989) and postcranial non-metrics were scored as Finnegan (1978). Stature estimation was calculated using the prediction equations of Trotter & Glesser as cited in Brothwell & Zakrzewski (2004, 33). These equations should be used with caution however as they were devised using American samples.

Each bone was analysed for any evidence of abnormality and comparisons were made to the literature on palaeopathology. The standard texts referred to were Ortner (2003), Waldron (2009), Aufderheide & Rodriguez-Martin (1998), and Roberts & Manchester (1995). Cribra orbitalia and porotic hyperostosis were scored as Stuart-Macadam (1991). Dental calculus and periodontal disease were scored as Brothwell (1981).

Results

SK 1 context 246

The preservation of the skeleton was assigned as good, although only the lower half of the body was present. There was some damage to the pelvis and the right tibia and fibula. The colouration of the bones in general was a mid-brown. The completeness of the skeleton was scored as 25% complete.

Postcranial bones present:

Sacrum and first coccyx bone.
Left side: innominate, femur, metatarsal 2.
Right side: metacarpals 1–5, 4 proximal phalanges, innominate, femur, tibia, metatarsal 1.
A left tibia and fibula which appear to be a match for this individual were labelled as context (208).

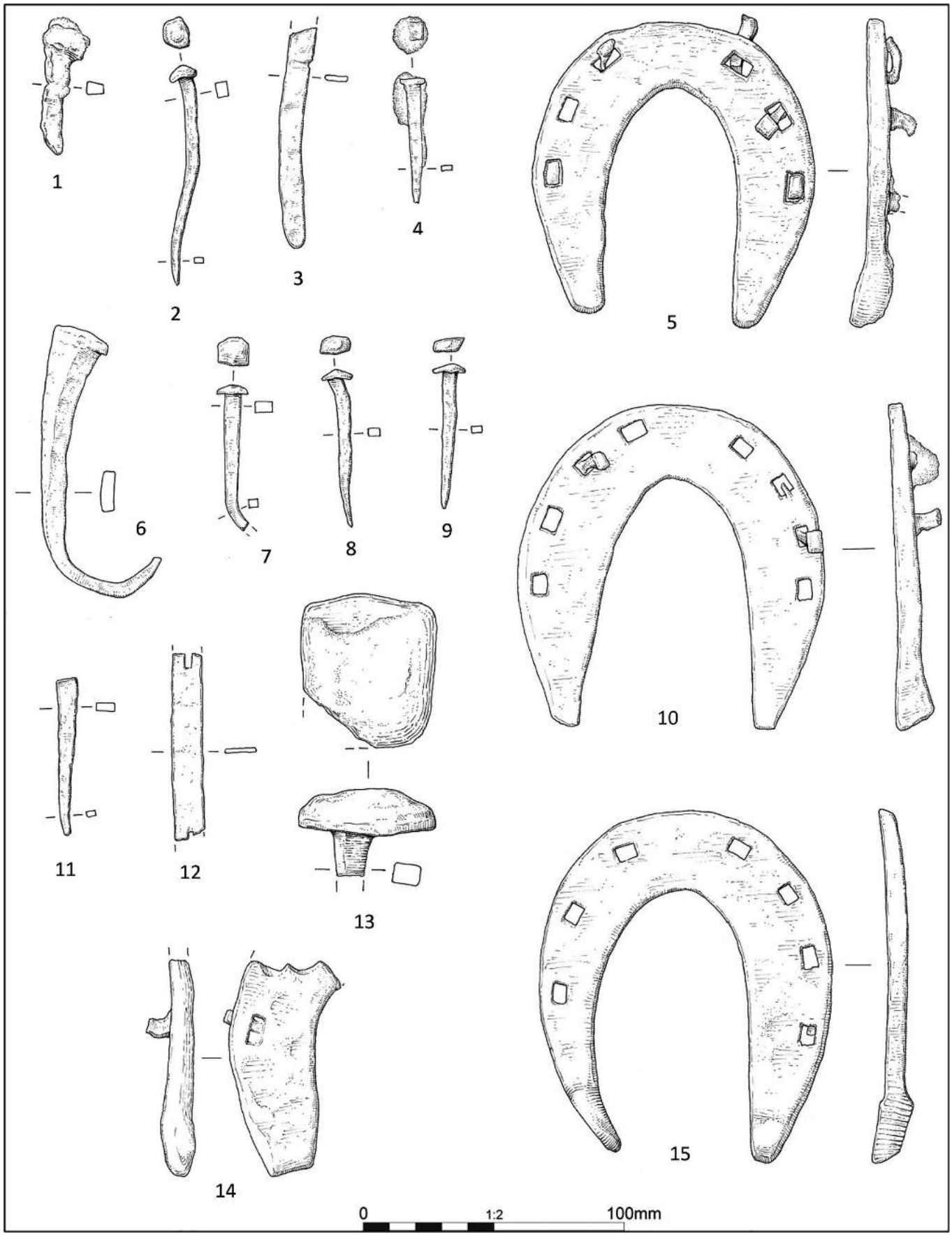

Fig. 12 The Small Finds (Dave Watt).

Sex determination
Sex was assigned from the morphology of the pelvis (innominate bones and sacrum) as male. Metrics taken on the femur suggested a gracile individual falling within the indeterminate sex category in comparison to data from Bass (1995). A stature estimate from the left femur indicates an estimated stature of 161.37cm ± 3.27 or between 5 foot 2 inches and 5 foot 4 inches.

Age determination
Age-at-death was determined from the morphology of the auricular service of the pelvis and skeletal fusion. Whilst all the bone elements recovered were fused and adult the fusion line on the femoral head was still slightly visible indicating a younger adult. The auricular surface retained its youthful features with some billowing present and fine grained texture, there was some taphonomic erosion but overall a grade of 2 was assigned indicating an age of between 25–29 years. The auricular surface was also scored using the Chamberlain & Buckberry (2002) method and was assigned to an age of 21–38 years with a mean around 29 years. Overall this individual would appear to most likely be in the young adult age range of 25–35 years.

Non-metric (epigenetic) Traits
No traits were scored as present on this individual.

Palaeopathology
Slight striations were noted on both the femora and tibia possibly indicating an incidence of periosteal new bone formation (PNB) which by the time of death was well healed, and likely due to an unknown incident of infectious origin. Slight anterior to posterior bowing of the femora was in evidence which was more marked on the right side.

SK 2 context 249
The preservation of the skeleton was assigned as very good, although there was some damage to the facial bones, ribs, distal femora and proximal tibiae. Most of the bones of the hands and feet were missing. The colouration of the bones was a darkish mid-brown. The completeness of the skeleton was scored as more than 75% complete (see Figure 1).

***Skull bones present*:** frontal, left and right parietal, occipital, left and right temporal, left and right zygomatic bones, maxilla, mandible, sphenoid, and left and right palatine bones.

Postcranial bones present: Seven cervical, 12 thoracic and 5 lumbar vertebrae, sacrum and first coccyx bone, manubrium and sternum.

Left side: clavicle, scapula, humerus, ulna, radius, metacarpals 1–5, 10 ribs, innominate, femur, tibia, fibula, patella, metatarsal 1–5, calcaneus and talus.

Right side: clavicle, scapula, humerus, ulna, radius, metacarpals 1–2 and 4–5, 12 ribs, innominate, femur, tibia, fibula, metatarsal 1–5

Four unsided proximal hand phalanges were also present.

Sex determination
Sex was assigned from the morphology of the pelvis (innominate bones and sacrum) and skull as female. Metrics taken on the femur, humerus and scapula mostly fell within the intermediate category in comparison to data from Bass (1995). A stature estimate from the left humerus indicates an estimated stature of 163.14cm ± 4.45 and from the left ulna 159.39 ± 4.30 giving an overall estimated stature of between 5 foot 1 inches and 5 foot 6 inches. The leg bones were too fragmented or eroded to measure for stature.

Age determination
Age-at-death was determined from the morphology of the pubic symphysis and the auricular service of the pelvis, cranial suture closure and dental attrition. The pubic symphysis was scored a grade of 4 indicating an age in the late 30's. The auricular surface scored a grade of 3 or 4 depending on size, giving an age range of 30–39 years. The auricular surface was also scored using the Chamberlain & Buckberry (2002) method and was assigned to an age of 21–38 years with a mean around 29 years. Cranial suture closure gave a mean age in the early to mid-40's and dental attrition 25–35 years. Overall this individual would appear to most likely be in the middle adult age range of 30–45 years.

Dentition

Right								Left							
Ca	C	P	P	P	T	N	N	C	C	P	P	P	P	X	P
8	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
8	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
N	P	X	X	P	N	P	P	P	P	P	P	P	X	X	P

P = present, X = tooth lost ante-mortem, C = tooth present with caries, N = tooth lost post-mortem, Ca = tooth congenitally absent

There are carious lesions in three teeth and five teeth have been lost ante-mortem. The upper left third molar is small in size and situated low in the jaw (not in occlusion). It appears to have been impacted and angled into the area of the second molar and this may be the reason for the loss or extraction of this tooth. There is slight to moderate calculus present on four upper and seven lower teeth and resorption of alveolar bone indicates slight periodontal disease.

Non-metric (epigenetic) Traits
Skull traits include a metopic suture on the frontal bone, this suture is normally obliterated around five years of age but is retained in a proportion of the population, with a modern incidence of around 3.3% (Hauser & De Stefano 1989), a supraorbital notch above the left eye orbit and a supraorbital foramen above the right. Postcranial traits include Allen's fossa which is present to varying degrees on both femora, both the left calcaneus and talus have a double anterior facet (no right side bones were present), and the atlas has posterior bridging present.

Plate 3 SK2, a near complete individual.

Palaeopathology

There is a possible slight scoliosis (curvature of the spine) towards the right side from the second to the sixth thoracic vertebrae, there is no evidence of any associated degenerative joint disease. There is discussion in the literature over the terminology surrounding Allen's fossa and cribra femora (Radi *et* al. 2013) and there is wide variation in the expression of this trait. In this case with the right side femur has a much more marked area of exposure of the trabecular bone at the neck of the femur (see Figure 2). Cribra femora may be associated with iron deficiency and/or vitamin B12 deficiency anaemia (Lewis 2018, 194), but there is no cribra orbitalia (exposure of the trabecular bone in the eye orbit) in evidence, which is more usually associated with this condition (Stuart-Macadam 1991; Walker *et al*. 2009). Lesions in this area are also associated with Allen's fossa a non-metric trait of possible developmental origin (Finnegan 1978) and the left femur has a smaller lesion which more readily matches that as described by Finnegan (1978). They have been shown to occur more frequently in females and in younger age groups (Radi *et al*. 2013).

Plate 4 Right femur with trabecular bone exposed.

Stable Isotope Analysis

A sample was taken from the lower left third molar by Jamie Lewis, University of Bristol for strontium analysis to determine if the individual had an isotopic signature that indicated they had grown up locally or elsewhere. Due to the Covid-19 pandemic and associated laboratory restrictions the results are still pending.

DISCUSSION

The presence of these two skeletons one of them buried according to Christian tradition and at least one of them buried in a coffin but outside of a known cemetery, is unusual for the period. The partial skeleton of a young male of below average stature for the period, which was 171cm (5 foot 7 inches) for males (Roberts & Cox 2003, 391), has indications that they may have suffered from rickets as a child, due to the bowing of the femora bones. There is evidence for a healed non-specific infection but nothing that can indicate the cause of death for this young man. The more complete skeleton of a middle aged female of average stature or above for the period, which was 160cm (5 foot 2 inches) for females (Roberts & Cox 2003, 391) appears to have had a slight scoliosis (curvature) of the spine but no evidence of any associated degenerative joint disease indicating a mild condition. The dental health of this individual was poor but not unusual in comparison to females of the medieval period, as with the male there is no evidence on the skeleton for their cause of death.

GENERAL DISCUSSION

The two parallel east-west ditches that extended right across Area 2, continuing on beneath the east and west sections of the excavation are thought to be connected with the "great spurrwork" described by Bernard de Gomme in 1643 in his detailed account of the forward defences of Bristol which were begun by city authorities late in 1642. Although stratigraphic sequencing across the excavation was problematic owing to severe truncation of archaeological deposits, particularly to the northernmost ditch, the evidence appears to indicate that both ditches were open at the same time.

The southernmost ditch respected the line of the pre-1835 city boundary so could potentially date from the creation of the city and county of Bristol by Edward lll in 1373. Its basal fill contained pottery ranging in date from the late 17th to the mid-18th century, with no earlier deposits, suggesting it could have been cleaned out before conflict began in the 17th century. It was certainly filled in and built over some century and a half later, evidenced by the rear wall of the properties built on Ashley Road, which utilised the ditch as a convenient construction trench.

The other ditch lay just 2 metres away to the north, but only the base of this one survived, having been severely truncated during the construction of the properties on Ashley Road. Dug through its base on its southern side were two graves, one containing the remains of a young man aged between 25–35 years and the other the remains of a woman aged between 30–45 years. She lay within a six-sided oak coffin. Both graves contained within their fills a single unmarked clay tobacco pipe bowl and stem pieces of a type dated between 1630–1650. Although it is likely the clay tobacco pipes were buried with the individuals when they were interred in the ground, thus dating the burials to the mid-17th century, it cannot be totally ruled out that the pipes fell into the graves from the overlying ditch fills, although the chances of a single clay tobacco pipe falling into each grave seems unlikely. Therefore, and based on the available archaeological evidence, it is most likely that both ditches were connected with the Civil War defence work constructed at Stokes Croft.

In preparation for civil conflict, work began in Bristol in late 1642 constructing a line of defences north of the river Avon and refortifying parts of the decaying castle and the medieval defences south of the river. North of the river this involved the construction of ditches, earthworks, forts and other works which extended for about four miles from Water Fort just below Brandon Hill in the west, across Brandon Hill to Windmill Fort (later named Royal Fort), across to Prior's Hill Fort, down to Stokes Croft Work and south to meet the river somewhere close to Tower Harratz which lay on the opposite (southern) bank of the river Avon. Fortunately, a contemporary detailed account of the defences was made in 1643, attributed to royalist engineer Sir Bernard de Gomme. In this account, de Gomme describes in great detail the forts at Brandonhill, Windmill and Priorshill and states [sic] *And hence trends the Line Southerlye towards the Town where in the bottom of the hill in the medow calld Stokes Croft, upon Gloucester highway & within Little more than half musket shott of Priors fort, there is a great Spurreworck in the Line, & a strong high Traverse, or Fore worck, watching and shutting up the highewaye, with a strong port of timber barres on the East side of it. And these be the mayn worcks wee had to attack, on our side having in all 5 Cavalliers or Batteryes*. The account continues *…Theyr drye rockye Graffs be also narrowe and shallowe. These forts command all the valley towards Durdham Downe Northwards: and backe again over the whole Cittye, Southwards. Thorow all these forts from river to river, runnes a continued Line or Curtaine of meane strength & not comparable to those of*

Oxford. Its heigh, commonly 2 yards broade, but somewhere a foote or twoe more. The depth scarce considerable, as being hardlye 5 foote, usuallye, and in many rockye places not so deepe.

De Gomme's description of the ditch could very easily describe either of the ditches found in Area 2, one of them possibly repurposed from the 1373 city and county boundary, but both hewn from stony ground and measuring some 1.9m (6ft) across and 1.23m (4ft) deep. It is not impossible to imagine that the outer, northernmost ditch was dug as part of the '*Spurwork'* described by de Gomme. According to Saunders (2004, 43) a second ditch is a frequent feature of hornworks and ravelins. Their employment at Stokes Croft would certainly have rendered an attack by a cavalry force challenging, and perhaps this is reflected in the relatively large number of horseshoes found at the site, totalling three whole ones and parts of three others. The toll on the feet of cavalry horses from campaigns such as the ones conducted in Bristol may be gauged from the battle of Landsdown Hill on 5th July 1643 where it was reported that the *'enemy's* (in this case Royalist) *horse left their foot naked'* (Lynch 1999, 66).

There is however, disagreement as to the actual route the defences took on its path east of Priors Hill Fort. In Figure 2 (above), which is reproduced from a sketch of the Outworks presented in a paper by Edmund Turnor to the Society of Antiquaries of London in 1801, and subsequently published in Archaeologia XIV (1804), Turnor described the defensive line beyond Priors Hill Fort as being *'near the north ends of St James's Place, and Somerset Street; then by Stokes Croft gate across the river Frome to Lawford's gate …'*. Writing in 1824, Evans (197–198) provides a further, detailed description of the outworks as they appeared in 1645, [sic]'*… Prior's Hill Fort, the form of which is still traceable: here there were three gunners. The line then descended on the north-east side of Hillgrove-street, touching the county bounds at the bottom – crossed Stokes Croft, the ground now occupied by Wilder-street, the Lewins Mead Chapel burial-ground, Surrey –street…'.'*

Russell writing in 1993, and again in his updated edition of *'The Civil War Defences of Bristol: Their Archaeology & Topography'* (Russell 1993 & 2003) was also of the firm opinion that the defensive line descended the Kingsdown escarpment, south-eastwards across the site of Armada House and Dove Street South, before crossing Jamaica Street between Hillgrove Street and Stokes Croft, where it would have met Stokes Croft Gate. This would place the gate close to present-day City Road, some 250m south of the excavation site at Ashley Road. Interestingly, Nicholls and Taylor (1882, (3), 10) placed the gate *'at the foot of the hill near the Ashley road',* so descending Nine Tree Hill, as did Ashmead in 1828 and the Ordinance Survey. Significantly, de Gomme in his detailed description of the defensive works, makes no mention of the defences beyond '*the great Spurreworck in the Line'* . In his narrative, he states: "*I measures no further*", he states "*because wee had to deale no further"*. Perhaps Russell was influenced in his opinion by the mention in Nicholls and Taylor ((1), 229) of a burial found during the construction of the northern end of Jamaica Street, which was said to lie within a ditch measuring some 3m across and which, it was assumed, was the civil war ditch, in any case, this ditch would seem to represent the pre-1835 city boundary. He was also quite clear that his plans and descriptions of the defences in his booklet 'include a substantial element of conjecture which will act as a stimulus in this respect to archaeological observers both professional and amateur, as well as to documentary historians (Russell 2003, 3).

In the course of the 1645 siege and after the capture of Priors Hill Fort by the Parliamentarians, another burial is said to have taken place of a Royalist officer named Pugsley. He was reportably killed at Priors Hill Fort and was buried, on the orders of Sir Thomas Fairfax, in an adjoining field, with military honours (Evans 1824, 201–2, Mellor 1987, 56–8). His widow, one Mary Pugsley, in accordance with her dying request, in either 1700 or 1705, was buried by the side of her husband in her wedding dress, without a coffin, but with girls strewing flowers and musicians playing merrily as her body was borne to the grave Latimer 1900, 202).

The question of burial of the many that perished during the conflict on both sides is obviously a serious one. Historians are divided over the numbers of dead and injured from the English Civil War, one estimate putting deaths at 180,000, but only 85,000 from combat, the rest owing to accidents and disease (Mortlock 2017). Another writer estimates 34,000 Parliamentarians dead, and 50,000 Royalists, with at least 100,000 men, women and children thought to have died from war-related diseases, such as plague and famine, bringing the total in England to nearer 200,000 (History.Com 2019), up to a loss of 6% of the population of England. With inner city graveyards filling up or possibly even full, local authorities must have been faced with a challenge in disposing of the dead. This perhaps explains why at least two of the dead, and perhaps more, were buried at the Stokes Croft site, rather than in one of the nearby parish cemeteries.

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UNEARTHING THE LOST STABLE BLOCK WING – EXCAVATIONS AT ASHTON COURT

By Tony Roberts

INTRODUCTION

During the summer months of 2018, Bristol City Council (BCC) staff working at Ashton Court had noticed significant parch marks appearing on the lawn to the South of the house (Plate. 1). The very dry summer had caused the grass over areas of possible structures to become stressed. It was unclear whether these marks were the result of drainage or services that crossed the lawn, or the tell-tale signs of the remains of older structures.

Archeoscan conducted a geophysical survey to identify any potential archaeological remains. The results indicated that it was likely that the remains of a long since demolished Eastern wing of the Court were the probable explanation for the parch marks. The survey also indicated other potential archaeology that may relate to earlier phases of the history of Ashton Court such as formal garden features and perhaps approach roads.

Having exhausted the non-intrusive archaeological techniques an archaeological evaluation was conducted with the aim to positively identify some of the features shown on the geophysical survey and understand more about their relationship to the current, and former, Court buildings. This was a community focussed excavation to enable members of the public, under the supervision of professional archaeologists, to actively engage in the archaeological activities (Plates 2 and Plate 3) and to engage in the history of Ashton Court, helping to raise the profile of the public spaces at Ashton Court and the heritage of the local area. Six primary schools from Bristol and Weston-super-Mare also engaged with the project under

Fig. 1 Location of Ashton Court in North Somerset.

Plate1 Parch marks on the South lawn of Ashton Court (Steve Clampin)

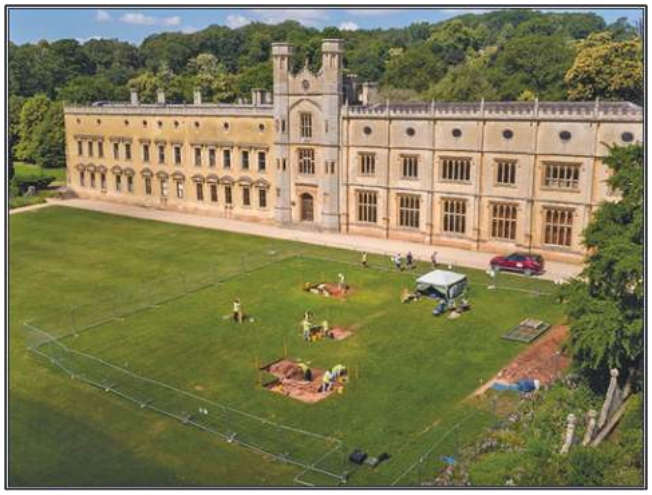

Plate 2 and Plate 3 Excavations on the South Lawn of Ashton Court (Nick Turner).

the sponsorship of the Heritage Schools programme run by Historic England. The pupils also interacted with the history of the current Court buildings with the guidance of Artspace Lifespace and Bristol City Council. Bristol Museum & Art Gallery supported the excavation through the first of their "Introduction to Archaeology" courses and displayed finds on site whilst the excavation progressed. The Bristol and Bath Young Archaeologists Club were able to assist with the excavation and finds processing.

ARCHAEOLOGICAL POTENTIAL

Ashton Court has been the site of a manor house since the 11th century, and over the centuries has been developed by a series of owners. From the 16th – 20th centuries, it was owned by the Smyth family, with each generation changing the house. Designs by Humphry Repton were used for the landscaping in the early 19th century and it was used as a military hospital in the First World War. In 1946 the last of the Smyth family died and the house fell into disrepair before its purchase in 1959 by Bristol City Council. Several maps and engravings have indicated that a long-lost wing of the main house projected to the south of the Court building range and stood to the East side of the South Lawn. Local historian Anton Bantock has written extensively on Ashton Court and in his 2004 publication shows two images of Ashton Court ascribed to the 14th century and to 1730. They both clearly indicate a wing projecting to the South across the current South lawn (Bantock 2004)

Confirming this, an estate map, surveyed in 1740 and drawn in 1765, indicates a North-South aligned building to the East of the South lawn. It is notable that this is depicted as a separate structure from the main building (Fig. 2).

Further illustrations by Bantock (1984) show a Southerly projecting wing of the Court in both 1750 and 1780. He indicates that this wing was constructed in the 16th century and comprised of what he referred to as an Upper and Lower Stables. In the same publication he suggests that the Lower Stables were demolished in 1762 (Bantock. 1984,123). It is generally accepted that the rest of the 16th century wing was demolished and replaced in 1802 to provide the more symmetrical frontage that currently exists. It is notable that the Bantock's illustrations depict the wing as being perpendicular to the main building (as does the estate map). However, other plans illustrate the 16th century wing as being constructed at an angle (Fig. 2). To further complicate

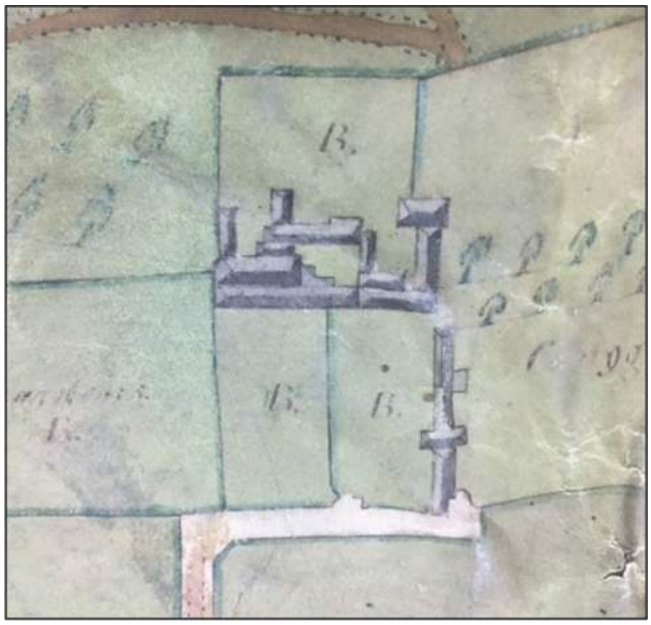

Fig.2 Estate map surveyed in 1740 and drawn 1765 (BRO. AC.PL.86).

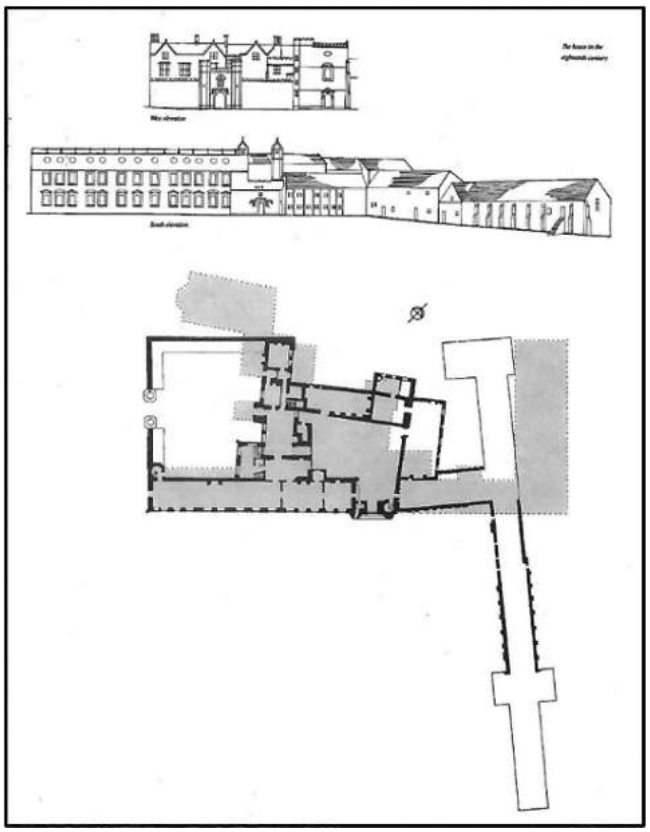

Fig. 3 Plan of Ashton Court taken from BCC publication showing wing at an angle to the main building.

Fig. 4 Long Ashton Court by J Collinson, 1791, (BRSMG Ma3805 © Bristol Culture).

the speculation of the location of the wing, Bantock produced some unreferenced hand-written drawings which are in the Bristol Records Office that show a short wing perpendicular to the main building but immediately East of the gatehouse (BRO 4168,.2.39).

It is suggested that most of the attempts at ground plans of the Court will have been influenced by engravings that depict the Court and the Eastern wing. An example by Collinson, drawn in 1791 (Fig. 4), shows a long wing some distance to the East of the gatehouse. The combined evidence from contemporary maps and illustrations does appear to be contradictory as to identifying exactly where the wing stood. The key aims of the excavation were, therefore, twofold – firstly, to locate the lost wing and, secondly, to determine its former use.

So, what did the excavations find?

THE EXCAVATION

The excavation in 2019 targeted geophysical anomalies in an area on the eastern side of the South lawn (Fig. 5). The geophysical anomalies indicated the potential of substantial structures and the possibility of modern drainage

Over the four weeks of the dig, 4 trenches were excavated (Fig. 5). Three of the trenches revealed significant structural remains. In trench 1, under the turf line, the subsoil represented the disturbed upper layers of the later Victorian garden levels. This layer contained extensive amounts of probable Victorian terracotta pottery. Beneath this layer a shallow lens of darker brown clayey silt probably represents the lower level of a garden feature that had penetrated the general backfill over the

underlying masonry structures. The main features of the trench were the well-constructed walls that formed the southeast corner of a possible room that has a stone block floor (Plates 4 & 5). Similar walls and floors were found in Trench 3 (Plate 6) and probably represent the same building (Fig. 6). The walls are cut by a domed brick-constructed drain, with a vent that extends to the surface of the Victorian levels. The drain does not extend to the depth of the courtyard floor. The walls stand to a maximum height of 1.2m and are constructed of sandstone blocks with lime mortar bonding (Plate 7).

It is possible the walls of the main building projected further to the south, but the evidence for this continuation has been destroyed by another large drain. This drain has large slab stones capping it and projects towards the current courtyard outside the current stable block and is possibly connected with it. When it was built, it appears to have respected the existence of the corner of the building to its northwest (Building 1), but it has cut through the wall of another structure (Building 2). This wall is of a different construction to the main walls (Fig. 6), is on a different alignment and appears to belong to a different structure altogether.

THE FINDS

Pottery was recovered from across the dig (Plate 8). Selected elements of the pre-Victorian assemblage were reviewed by David Dawson and compared against the Bristol Pottery Type Series (BPT) held in Bristol Museum to provide an overview of the material and to establish general timelines. From the upper contexts a significant amount of Victorian pottery was recovered. From within the contexts that filled the building structures material dating from the 18th and 19th centuries was recovered. Notable material includes

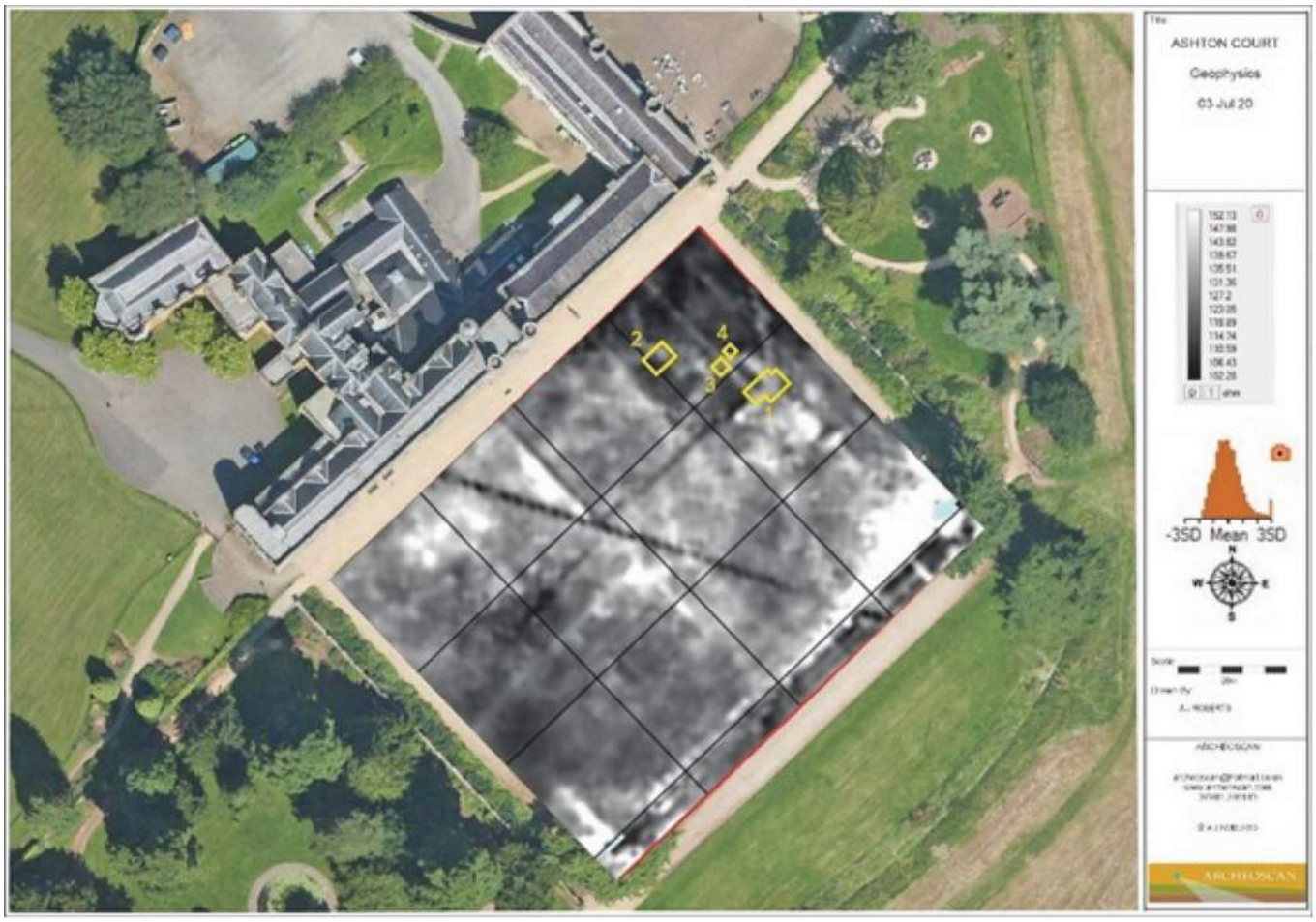

Fig. 5 Geophysical survey with trenches indicated in yellow.

Plate 4 Walls in trench 1.

Plate 5 Second wall (left) on different alignment.

Bristol Yellow Ware (BPT100), North Devon Glazed ware (BPT108) and North Devon Gritted Ware (BPT152) and fragments of 18th century Delft ware. At the lower levels of the fill over the cellar floor were a variety of wares that dated to the 17th and 18th centuries. Red wares from East Somerset dating to the early 18th century and fabrics from North Devon (BPT112). Early tin-glazed Delft ware, some, plain white, from the late 17th century and probably of Bristol manufacture (BPT 99). Sherds of German stoneware were also present, notably Frecken ware (BPT 226a) dating to the late 18th century and Westerwald (BPT 95). One fragment of a sub-Cistercian ware cup probably dates from the late 16th century. It is notable that most of the fragments

Plate 6 Walls and floor of building in Trench 3.

Plate 7 Surviving depth of wall in Trench 1.

are utilitarian pieces, probably kitchen ware or other such functional uses.

Several small finds were also recovered. Three small finds are significant in the context of the dating and use of the site. A piece of jewellery (Plate 9), probably Victorian in date was recovered from the levels of the later Victorian garden. It is a gilded snake wrapped around a red ruby-like stone. The broken attachments on the reverse suggest that it was probably a brooch or stickpin, or possibly a hatpin. A buckle (Plate 10) is of a double looped type with a trapezoidal frame, recovered from above the stone floor of the structure. Although trapezoidal buckles are known from the 15th and 16th centuries, the range of type remains very limited until the 17th century. (Whitehead 1996). On the more decorative buckles the outer edge of each loop is expanded and elaborately moulded. There are a great many varieties of these buckles. However, the trapezoidal buckles are understood to have been used in conjunction with spurs which fits a theory that the excavated building was a stable.

From across all the trenches a total of 62 fragments of clay tobacco pipe stems and 15 fragments of clay tobacco

Plate 8 selected pottery from Trench 3.

Plate 9 Possible hat pin.

Plate 10 Iron buckle.

Plate 11 Iron Key.

pipe bowls, some complete, were recovered (Plate 12). Four of the pipe bowls carried makers' stamps: PE (x2), HP and a tudor rose. Such stamps are very useful in identifying the manufacturer and providing dating evidence. Tobacco pipes made of clay were mentioned as early as 1598. The early stages of the industry were concentrated on London but Bristol became an important centre for manufacture from 1619 when there is the first reference to a Bristol pipe maker.

Several sherds of glass dating from the 17th century to the modern period were recovered from across all 4 trenches. The more significant pieces were larger fragments of onion bottles from the fills immediately above the floors of the building (Plate 13). Onion bottles date from the late 17th century into the 18th century. The strong association between the 17th and 18th century pottery and clay tobacco pipes provides a clearer picture of occupation in that period in and around the building being investigated. The relatively high number of bottle necks and rims may suggest that the area was once used for storage of the bottles.

Plate 12 Clay tobacco pipes.

Plate 13 Neck of onion bottle.

DISCUSSION

The excavation of the four trenches in the South lawn of Ashton Court uncovered a significant amount of archaeology. Trenches 1, 3 and 4 have exposed significant masonry walls standing to a height of 1.2m, that formed part of a substantial building that appear to enclose a stone cobbled surface that extends beyond the western limits of the trenches.. The level of the floors relative to the current ground surface, and the level of the current East wing of the mansion, suggests that this is a cellared building (Building 1, Plate 7). To the south lie the walls of another structure (Building 2) on a different alignment, but the relationship between the two buildings is unclear in the exposed trenches. It is possible they are contemporary structures and together formed part of the lost wing of the mansion that once projected the length of the South lawn. The wing may not have been a continuous structure, as seems to be the case in the depictions in various contemporary engravings, but a series of separate structures on a similar, but not exact, alignment. The different alignments may indicate that these structures were constructed at different times. Building 2 does appear to project further to the east than the cellared structure of Building 1.

The layout and location of the walls do raise questions about the exact location of the demolished wing of the mansion. Figure 6 shows the georeferenced lost wing of the mansion as drawn in the Bristol City Council publication based on the work of Gilmore, Hankey and Kirk, detailing the development of the mansion. The wing (depicted in

yellow) is shown as having been located further east than the excavated walls (depicted in red). This raises two possibilities, either the mapping is incorrect, and the wing is located further to the west or the mapping is correct, and the excavated buildings are not part of the wing. However, the alignment of the excavated buildings does match the alignment of the plans.

If the plan location in Fig. 6 is correct, then it is feasible that the walls of Building 2 are part of the projection to the west shown on the yellow outline, but if so, the alignment is wrong. It is possible that Anton Bantock's (unprovenanced) sketches of the location of the wing are closer to the reality of where the wing is located although, to add further confusion, his later publications (Bantock A 1984, and 2004) also placed the wing further to the east.

The walls of both buildings have been cut through by large drains that run north to south from the current mansion. The westernmost drain cuts directly though Building 1. It is probably a later drain dating from the Victorian period given that the attached brick vent protrudes into the Victorian garden levels. The second drain, to the east, is potentially older given the slab style of its construction. It appears to project toward the modern café courtyard and probably dates to the same period as the current East wing, of the standing building, constructed in 1802. The drain seems to respect Building 1, missing it to the southeast. This may suggest that Building 1 was known to the builders in 1802 as it was the Upper Stables that were still standing. However, the drain cuts through the walls of Building 2 that are on a different alignment. These may belong to the Lower Stables which were reported to have been demolished in 1762 and therefore may not have been known or visible to the builders in 1802. If this is the junction of the Upper and Lower Stables then this could explain the difference in alignment between the two structures. The Lower Stables may have been constructed at a much earlier date than the Upper Stables and became dilapidated earlier, hence the earlier

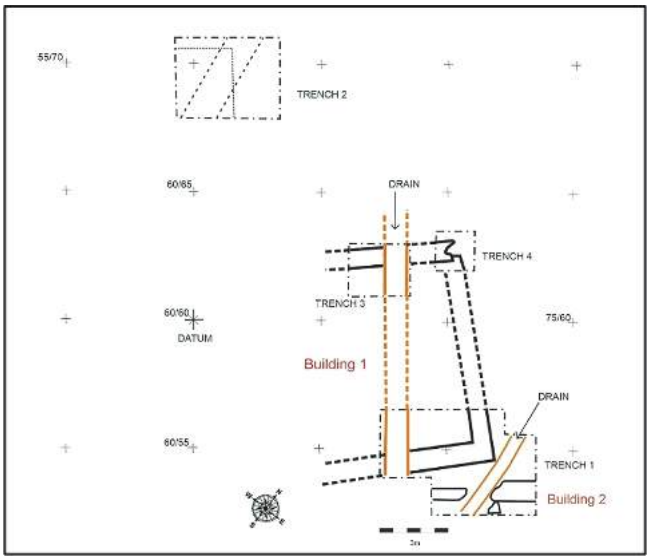

Fig. 6 Location of the lost wing (yellow) according to the plans (Bristol City Council 1986 after Gilmore, Hankey and Kirk).

date for their demolition. The walls of building 2 are on the same alignment as the earlier phases of the Court and it may be that the unusual angle of the 15th century wing is a result of an attempt to align the new wing with the existing Lower Stables (Fig. 7).

The finds from the fills overlying the floor of Building 1 support a structure dating from the 16th to the 18th centuries which would have been during the heyday of the stable block. It is notable that most of the fragments of pottery are utilitarian pieces, probably kitchen ware or other such functional uses that would be more identified with stables and/or outbuildings. At the lower levels of the fill over the cellar floor were a variety of wares that dated to the 17th and 18th centuries. Red wares from East Somerset dating the early 18th century and fabrics from North Devon (BPT112). Early tin-glazed Delft ware, some plain white, from the late 17th century, probably of Bristol manufacture (BPT 99). Sherds of German stoneware were also present, notably Frecken ware (BPT 226a) dating to the late 18th century and Westerwald (BPT 95). Apart from London, delft ware was produced at Bristol from 1645 and Liverpool between 1710 and 1760, as well as more briefly at a few other centres. Most was for export to the New World.

The clay tobacco pipes and fragments of onion bottles recovered from the same contexts date to the mid-17th century. The strong association with the 17th and 18th century pottery, glass and clay pipes, and the iron key, provides a clearer picture of occupation in that period in and around the excavated building. This would appear to indicate that the excavated building dates to the period that the lost wing is documented to have been standing. The discovery of the iron buckle from a similar date range, normally associated with the wearing of spurs, and the cobbled floor, similar in style to the current stables, supports the contention that Building 1 was most likely a stable block connected with the demolished wing, but mapped in the wrong place in recent publications. However, from the evidence found in Trench 1, it is equally feasible that the wing is not one continuous structure but comprised separate buildings on a slightly different alignment.

CONCLUSION

The investigations in 2019 uncovered some extensive and substantial archaeological remains that most likely formed part of the long lost wing of the house projecting south of the mansion that stood on the site between the 15th – the early 19th century. However, their discovery has raised further research questions. Whilst the remains date to the correct period they lie in an unexpected location when compared with contemporary and later maps and illustrations. The level of the floor of the building was much lower than expected, suggesting it may have been a cellared structure. Moreover, the presence of a second building on a different alignment again, raises uncertainty as to whether the lost wing was one continuous structure or a series of smaller, unconnected buildings, perhaps constructed at different times

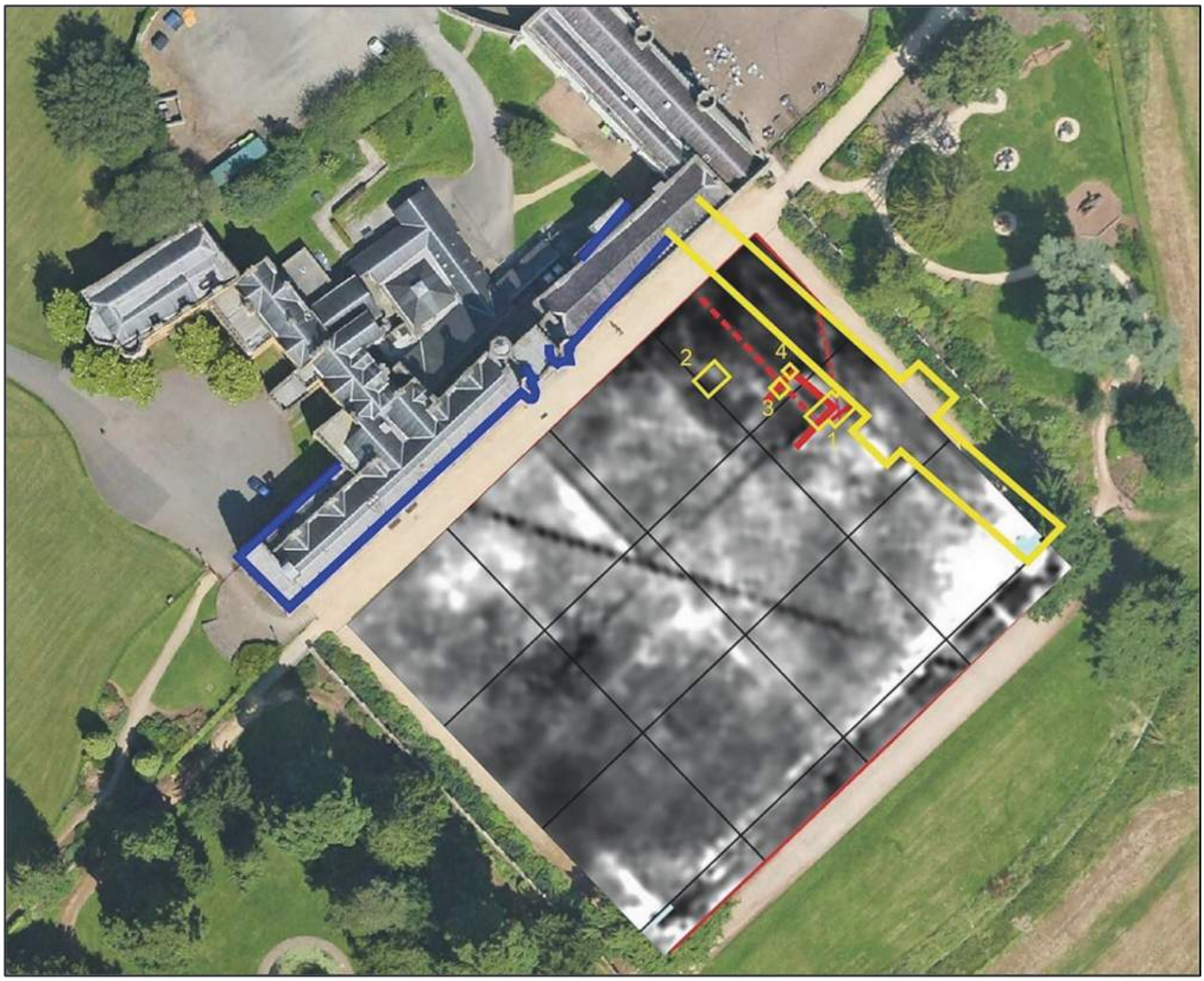

Fig. 7 Possible building layout and sequence.

The investigations at Ashton Court have had a wider impact than just the archaeological discoveries. They have facilitated the engagement of many members of the public in the heritage of Ashton Court alongside their participation in a professionally led archaeological excavation. The involvement of local primary schools through the Heritage Schools Programme has enabled a significant number of young persons to engage in heritage in a dynamic and proactive way. The publicly visible nature of the excavations has enabled the engagement of many members of the visiting public to Ashton Court to engage in the history of the site.

Archaeological investigations at Ashton Court were interrupted by the COVID-19 pandemic but it is anticipated that further excavations will take place in future years to provide a greater context for the plans of the buildings and further validate the exact location of the lost wing. This further work will again enable wider public participation and the opportunity to engage more local school children with the local heritage of Ashton Court.

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RECENT SURVEYS AT WOODSPRING PRIORY, KEWSTOKE, NORTH SOMERSET, 2012–20

By Vince Russett

ABSTRACT

It is sometimes difficult to remember that monastic buildings and precincts, if re-used after the Dissolution, have a near 500-year subsequent history of change and development. Parts of the grounds at Woodspring Priory have been excavated on no less than three occasions, but no comprehensive report has ever been published.

Yatton Congresbury Claverham and Cleeve Archaeological Research Team (YCCCART) carried out extensive geophysical surveys in 2012 and returned in 2019–2020 to complete the works, and repeat some at higher resolution. In addition, separate studies by the team recorded crop marks in summer 2013, lidar and documentary studies of water management earthworks, digital terrain modelling of some features in the precinct, and watching briefs on necessary wall repairs and reconstructions. The results of these other studies can be consulted at www.https://ycccart.co.uk/site%20reports

While the most recent campaign was marred by atrocious weather and the Coronavirus pandemic lockdowns, worthwhile results were obtained.

Work is set to continue in 2021.

ACKNOWLEDGEMENTS

A Heritage Lottery Grant enabled the purchase, by YCCCART, of a Bartington 601–2 gradiometer and Geoscan RM15 resistivity meter without which this survey could not have been undertaken.

This survey could also not have been carried out without the willing permission of the landowners, Landmark Trust, and the tenants, the Toogood Partnership. Thanks to Caroline Stanford, Richard Burton and Marilyn Donoghue at Landmark, Mel Barge and Kimberley Robinson at Historic England, Les Candal for generously sharing her documentary work on Kewstoke, and the YCCCART teams who carried out the surveys.

Fig 1 Site location: Woodspring Priory.

LOCATION

Woodspring Priory is a former Victorine (Augustinian) priory beside the Severn Estuary about 3 miles (5km) north of Weston-super-Mare in North Somerset. It lies at NGR ST34376615.

LAND USE AND GEOLOGY

The site lies on the Blue Lias Formation – at this site, it consists of interbedded calcareous muds and Limestone.

Much of the site is open to the public, and is used for grazing. Part of the site, including the farmhouse and its adjacent gardens, is let by the Landmark Trust to private individuals as a holiday destination and is only open by special arrangement.

HISTORICAL & ARCHAEOLOGICAL CONTEXT

Woodspring Priory is, and always has been, a somewhat remote site, most easily reachable by water through the Woodspring Pill, which lidar and air photographic evidence shows once reached the edge of the priory property, beside the modern road bridge and sluice on Sand Rhyne.

The site features a number of standing medieval buildings, including the nave of the church, a structure known as the refectory (although this is clearly the former infirmary), and the ruins of other buildings, such as part of the cloister and the entrance gate. Fragments and indications of other buildings survive in arches and old stairs in the walls of surviving buildings. Outside of the precinct that is open to the public is a great medieval barn (although its roof is a 20th century pastiche after a fire in the 1920s). This is in private use and is not available for public visits.

In the outer precinct, what appears to be a medieval moated site has been recently recognised. During recent heavy rain, this was very noticeable and water filled.

The whole site (including the site of the infilled fish ponds to the west of the adjacent farm) is Scheduled as an ancient monument (LEN1012722: Woodspring Priory and associated fishponds and field system); several structures are also Listed (LB:

Priory Church	LBI
Gatehouse, gates etc	LBI
East cloister wall [*recte* west]	LBI

West wall of chapter house	LBI
Infirmary	LBI
Barn and well	LBI
Farmhouse range	LBII*

Surprisingly little reported archaeological work has been carried out at Woodspring Priory.

An excavation is recorded in the 1885 Proceedings of the Somerset Archaeological and Natural History Society (Paull 1885) as follows:

> '…excavations commenced in Sept., and continued to the previous Saturday, the foundations of the walls of the choir had been laid bare. Where the high altar had stood, was found a quantity of 14th century pavement, and among the armorial tiles were the arms of England, France, the Isle of Man (with roses between each leg), lion rampant, a portion of the arms of Clare, and fragments. Ten feet from the east wall was found a large hole, containing human remains, including skulls; and four feet beneath the surface, near the tower, were found slabs, which appeared to have formed the end of a vault. Leaden coffins had been found.
>
> Large pieces of tracery and finials, evidently portions of the choir windows, were also unearthed; also glazed tiles and some large white squares, either of very fine freestone, or marble. From the position of these relics, it would appear that the pavement of the west end was more plain than at the east, where the more elaborate remains were found. The total length of the chancel was 43 ft. 5 in., and the width 19 ft. 10 in, the side walls being 3 ft. in thickness.'

Further excavation (fortunately, in the same area) was carried out in the 1920s by the then landowner, Major Vernon Hill. A newspaper article of 1927 (Bristol Times and Mirror) appears to be the only remaining record of this.

In the early 1970s an excavation by Tomalin and Crook resulted in a guidebook (Tomalin 1974; Tomalin & Crook 2007), but no substantial excavation report would seem to have been published.

An unpublished geophysical survey was carried out to the south of the infirmary and to the east end of the church in the early 1990s (GBP Prospection 1998) in conjunction with Bristol University. This has not been published, although there is a copy in the North Somerset HER: its results, while not as detailed as the below, helps to support the basic accuracy of this report.

Substantial (and somewhat repetitive) antiquarian study of the sparse medieval documentary evidence for the priory has been published, but it does not appear that the national archives have been trawled in detail, a process which, for example, Prosser (1996) employed to great effect in his PhD thesis on Keynsham Abbey (B&NES). A recent earthwork study in the orchard is in the North Somerset HER (Henderson 2012): it identified previously unrecorded earthworks, while a walkover survey in December 2011 identified a previously unrecognised moated site in the outer precinct, from which a collection of high-status 18th century pottery and glass was recovered.

The documentary studies all tell roughly the same story, of a fairly wealthy Domesday manor replaced in the early 13th century, around 1214, when the Victorines (a branch of the Augustinians) arrived from a former site called Doddelynch (whose site is currently unknown). The priory never had more than a handful of occupants and a meagre land-owning, mostly in the surrounding countryside. It was closed at the reformation, with subsequent land owners carrying out work to demolish the chancel of the church and various other demolitions and buildings.

The original place-name, Worspring, clearly derives from 'Worle' + *OE 'spring'* (coppice growth), the whole meaning 'coppice wood attached to Worle (estate)', and indeed, coppice wood is specifically mentioned in its Domesday entry.

One aspect of Woodspring's history is surprisingly only mentioned by a local historian, F A Knight, who in 'The Seaboard of Mendip' refers to payments by several local parishes to a 'hospital for maimed soldiers' apparently at the site for over a century in the post-medieval period. Woodspring is specifically mentioned as the site of this hospital in the parish records of Kewstoke in 1722 and 1725 (Knight 1902, 193).

The earliest map of the site (1768; in private hands) shows buildings that are no longer extant (See Fig. 2 below).

An excellent guide book has been produced (Tomalin & Crook 2007) and further information can be found online at www.https://landmarktrust.org.uk/BuildingDetails/Overview/184/Woodspring_Priory

The walls around the precinct (apart from that around the orchard) have all been slightly altered in plan since 1768: this plan also shows a building (to the west of the farmhouse) that corresponds exactly with a building standing in the farm buildings today. Although it now has a 19th century roof, the walls could well be early post-medieval or even monastic in origin: it certainly shares the same axis as the other buildings at the site.

GEOPHYSICAL SURVEYS

Initial survey was by gradiometer, but this met with only limited success. The use of some buildings could be suggested from it, but in the priory orchard, for example, old metal tree guards make its use unworkable.

The majority of the results discussed here are the results, then, of resistivity survey. Most was surveyed in traditional 1m x 1m grids, but in some areas where more detail seemed needed, such as the cloister and the Paddock (Fig. 4), the higher resolution of 0.5m x 0.5m was used.

Priory orchard

The priory orchard produced striking results (grid size 20m x 20m).

Our current interpretation of the major features of the results is briefly described below (Fig. 6). Most of the high resistance features showed as parch marks in summer 2013 (see below).

Fig. 2 1768 map of Woodspring Priory. Courtesy of Mr D Ridley. A copy of a second version of this map in the museum at Woodspring Priory has an illustration of the main buildings standing at that time.

Fig. 3 Woodspring Priory 2020.

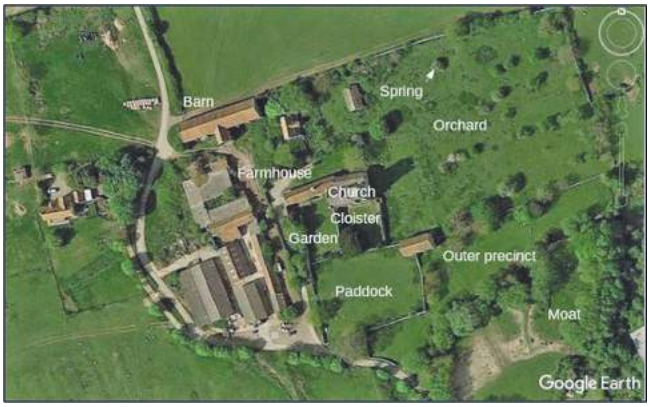

Fig. 4 Woodspring Priory: Areas as discussed in text.

1. This rectangular feature of high resistance, some 20m x 30m, appears to be a wall around the spring (which is at the site of the two blobs in the centre of the rectangle). Presumably this had the practical purpose of keeping animals out of the spring: it is not known if the spring was thought to be sanctified in the medieval period, and walled for that reason as some holy wells in Cornwall are – there is no evidence for this.

2. A second rectangular high resistance feature, 90m x 20m, extending from level with the spring enclosure to the eastern wall of the orchard was interpreted as a formal walled garden pond, probably of post-Dissolution date. Such features can be seen locally at Urchinwood Manor, Congresbury, for example.

The priory was converted into a large and opulent country house almost immediately after the dissolution of the monasteries, and this is the context in which we might expect to see a formal garden at this date, but the

Fig. 5 Resistivity results from Priory orchard, summer 2012 and autumn 2019.

Fig. 6 Resistivity results and interpretation.

documentation to confirm or deny this does not seem to exist.

It might also occur in the context of the documented 'hospital for soldiers' at the site in the 17th and 18th centuries, but which may have existed earlier than this. The obvious part of the buildings for this would have been the infirmary, where a tradition of healing would have previously existed. The walkways would have been ideal for perambulations by the recuperating patients.

An alternative theory makes this a monastic garden. These have certainly been recorded on better documented sites like Glastonbury Abbey. The ponds seem a little formal for fish ponds (especially since no less than three ponds existed in the field to the west of the priory), and it is unusual for such ponds to be walled. It is just possible that they had some specialised function, such as breeding ponds or keep ponds.

The large very irregular feature running down the centre of the pond is potentially the result of later drainage works.

The garden (if such it was) had ceased to function by 1768, by which date it had already become an orchard (Fig. 4, above). The date of the orchard's surrounding wall is unclear. It had taken its current form by 1768, but there are no firm indications of its origins.

3. An area of very clear wall lines in the SW corner of the orchard mark the chancel, chapter house and reredorter of the priory. Their clear lines are probably the result of earlier excavation having cleared away overlying rubble.

4. A north-south high resistance feature here coincides with the line of the conduit shown in the priory guide book, one section of which is still open.

5. This is a previously unrecorded small building, about 3m x 5m, which shows as wall lines in 2013 air photographs.

6. A group of linear features (two slightly curving parallel features at the west, and some at right angles running down the orchard show spectacularly clearly as parch-marks: they can, however, be seen to be recently installled land drains on an air photograph of 1949 in the North Somerset HER.

7. A much damaged second pond at right angles to the first, around 15m x 60m. The water from here would have drained south towards the moat in the outer precinct.

Outer precinct and moat

Our current interpretation of the major features of the results is briefly described below (Fig. 8). Most of the high resistance features showed as parch marks in summer 2013.

8. This slightly curving line of high resistance running across the precinct from the (modern) entrance to the precinct to a footbridge crossing the stream and on to the (modern) entrance to the orchard is a causeway, visible as an earthwork. It is not present on (North Somerset HER) air photographs of 1971 (Run 35, 1613), but appears on those of 1975 (Film 8918).

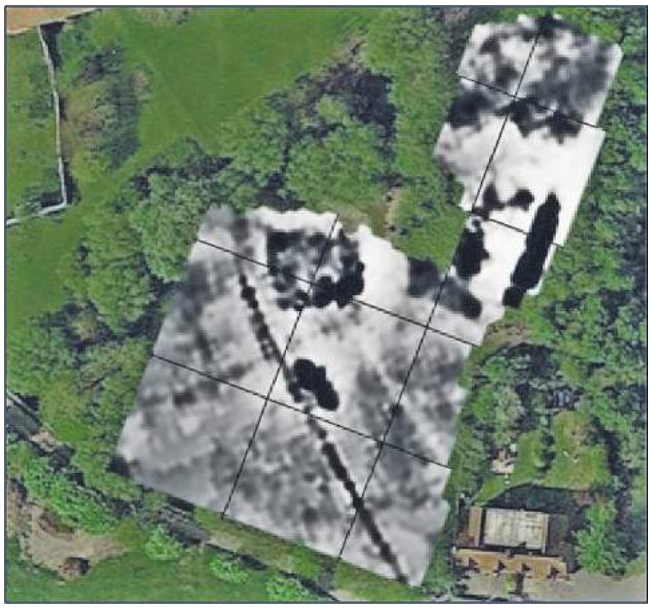

Fig. 7 Resistivity results from outer precinct and moat, 2020.

Fig. 8 Resistivity results and interpretation.

9. This high resistance block (*c*12m square) coincides exactly with a recent dump of clay seen on an air photograph of 1991 (Run 19, 113), where similar clay dump can be seen on the north and west sides of the moat.

10. A linear low resistance feature runs from behind Coronation Cottages to meet the feature 9 above. It is suggested this is a foul water pipe or drain running to a soakaway, and that the clay dumped in 1991 was an attempt to seal this with material dredged from the adjacent stream.

11. Two areas of high resistance lie just inside the south and east ditches of the moat, each roughly 2–3m wide. These seem most likely to be spread cleaning from keeching (clearance) of the moat: local information confirms that clay was 'dumped' on the moat interior at one point.

12. A confused mass of 'mottled' high resistance in the bend of the stream at the northwest corner of the moat. While with the eye of faith, a rectangular feature, potentially a building or structure some 12m x 4m can be seen (at the tip of the arrow), this must remain very tentative until some further, higher resolution survey can be carried out in 2021.

13. A small very high resistance area, 10m x 3m can be seen at this point. It is visible as a low earthwork when the grass is short. but it is uninterpretable from these results.

Paddock and land between it and the lane

Because of the inconclusive, but promising, results from the Paddock from 2012, it was decided to repeat the survey at higher resolution (0.5m x 0.5m). Grid sizes are therefore 10m x 10m. At present, this is very much an initial assessment of the survey results, to be yet integrated with air and ground photographs taken in drought conditions in summer 2013.

One interpretation of the parchmarks and resistance features is that they are buildings overlain by garden features: unfortunately the outlines of the resistance features are somewhat blurred by the rotovating activities of pigs, who from picture postcard evidence, were kept in the paddock around the time of the First World War.

Our current interpretation of the major features of the results is briefly described below (Fig.10). Most of the high resistance features showed as partial parch marks in summer 2013.

14. This high resistance feature, although slightly resembling the outlines of a building (and there are the remains of a wall along its northern edge) is predominantly the remains of rubble tipped inside the gate of the field, a very common feature in the often boggy fields of the Northmarsh.

Fig. 9 Resistivity results from the Paddock, 2020.

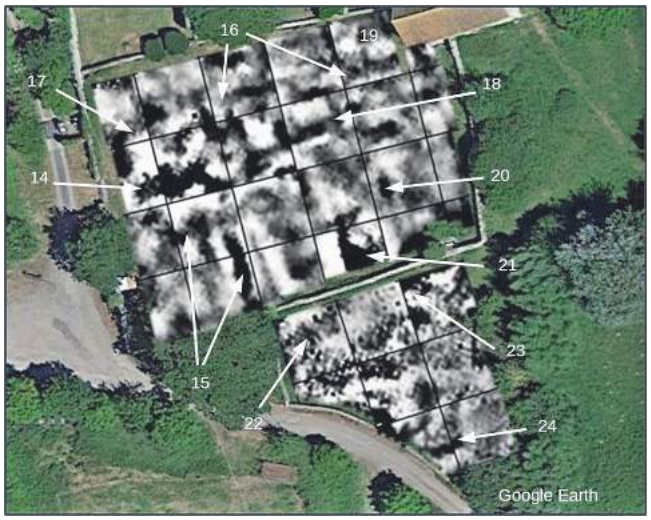

Fig. 10 Resistivity results and interpretation.

15. Two large stone walls at right angles, separating a *c*30m x 30m area off from the rest of the paddock. This is probably a small stock enclosure, but is not datable other than it not being seen on any map since 1768.

16. A long high resistance feature, parallel to the south wall of the cloister (but see below). If this is a building, it is likely to be the south wall of the refectory, as it is in an area usually reserved for such in Augustinian sites. It is at maximum 8m wide, although the parallel high resistance feature between it and the current southern cloister wall (which is not the original wall but a replacement a couple of metres north) may be its northern wall, in which case, it would be a more likely 5–6m wide. The position is complicated by the known existence along this line of a building shown on the Tithe Map, but not on that of 1768. Only excavation (or potentially, ground radar) can distinguish these (and see 19 below). It is probably responsible for the remains of a roofline on the western wall of the infirmary building.

17. This is the mysterious 'missing building' from the version of the 1768 map displayed at Woodspring, at an angle to the wall of the Paddock, and seen on maps as late as the Tithe Map. From the resistivity, it is up to 15m long, and up to 8m wide, with a potential cross-wall about half-way down its length. It has been suggested that this building may have been demolished and re-used as the current 'gatehouse' into the Priory, but this cannot be, since the 'missing building' was still in place at the time of the Tithe Map (1840), but John Buckler drew the gatehouse in its current form in 1829.

18. This is a rectangular structure, previously unrecognised. Its walls measure perhaps 18m x 5m, with possible stub walls linking it to structure 16. There is an interior feature *c*2m x 2m attached to the interior of its southern wall, which could be a chimney base. Of course there is the possibility that this may be 'only' a garden feature, but intriguingly, it shares an alignment with building 17.

19. The high resistance features in this corner relate to both pigsties seen on postcards of *c*1905, and to a concrete floor still visible in air photographs of 1949. It is not clear if the high resistance feature at the edge of the grid containing 19 is its western end, or a wall within the possible refectory 16.

20. A section of wall at right angles to the southern wall of the Paddock, approximately 18m long, but seemingly isolated. This shows up in parch marks, and in conditions of extreme drought, stones can be seen protruding from its surface. Its original function is not clear: the high-resistance 'blob' at its southern end is due to fallen rubble from the paddock wall.

21. A high resistance feature, 12m x 7m, with a stub wall at its northern end. Its southern end coincides with a sill underlying the south Paddock wall. It is assumed this was a building, but its relationship with the wall is intriguing.

22. This looks like a stoned track leading from a blocked gateway in the western wall of the field towards either feature 21 (or possibly, 23). This blocked gateway is itself interesting, as its sides taper inwards from the top towards the base: presumably, it dates from a period when used by laden haywains, whose loads would have projected from the sides of the wain.

23. The rather confused results in this area belie the clear images seen in the resistivity survey of 2012 (Fig. 11, below). This appears to show a small rectangular building with a partially open front (the whole around 8m x 4m) underlying the Paddock wall. Magnetic enhancement at the site shown in the gradiometry survey of that year was interpreted as signs of burning, and the whole as potentially a blacksmith's shop, keeping its dangerous fires and smells well away from the claustral buildings.

24. A series of unconnected linear areas of high resistance in this area correspond with earthworks at the site. The study in the field was enlivened by the local story that a car had been buried here in the 1970s! The story has yet to be tested.

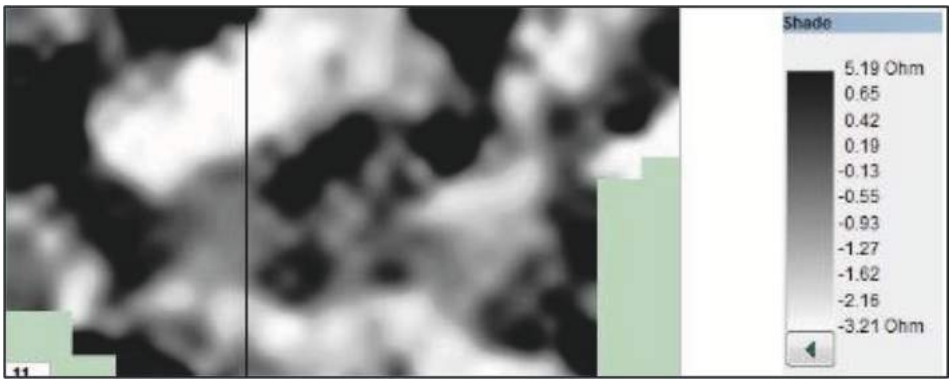

Fig. 11 Resistivity survey in the ground south of the Paddock, 2012.

The cloister

Since the cloister had been very overgrown when the initial surveys were carried out in 2012, it was decided to repeat the survey in 2020, at a higher resolution of 50cm x 50cm, and this gave acceptable results. Features in the centre of the cloister are due to the presence of current or past trees, and probably some centuries of gardening (the area is known locally as 'the garden').

25. A (partial) band of high resistance, parallel to the west wall of the cloister and around 4–5m wide, is interpreted as the west walk of the cloister. That this was a two-storey building is shown by the existence of a roof line on the south wall of the church nave at second storey level.

26. Although a (modern) hard-surfaced path prevented access to the whole width, the band of high-resistance around 4–5m wide, and running across the whole north side of the cloister is the north cloister walk. Its existence is confirmed by the blocked doorway in the south wall of the church, where, in the Victorine rituals, the canons lined up in order of seniority to enter the church for services (Schilling 2003). A photograph of Landmark works in 1992 (Fig. 14 below) shows stone slabs removed in digging against the church wall.

27. A band of high resistance down the east side of the cloister is interpreted as the east walk. This would have been important in providing sheltered movement between the church, sacristy and chapter house.

28. An apparently intriguing rectangular feature some 4m x 3m wide here unfortunately coincides exactly with a bench and chairs sited here for a few years earlier in the 21st century, and so is probably due to modern trampling.

29. This rectangular patch of high resistance , about 4m x 3m, is unexplained.

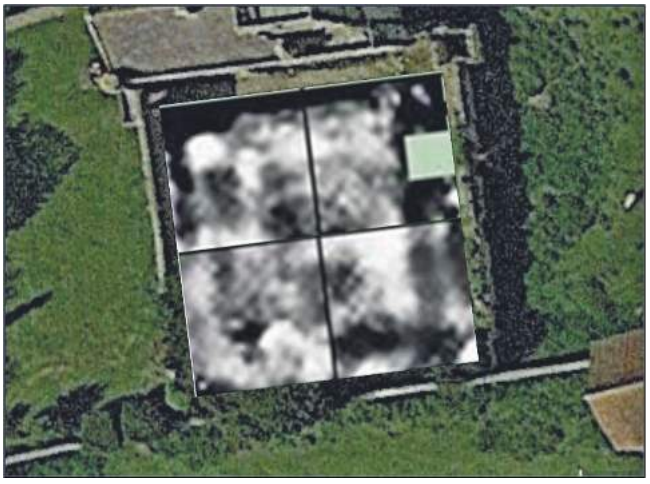

Fig. 12 Resistivity results from the cloister, 2020 (grids 10m x 10m).

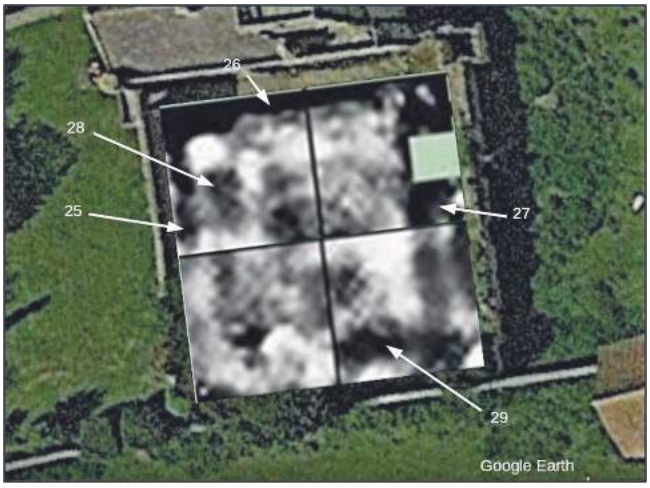

Fig. 13 Resistivity results and interpretation.

CONCLUSIONS (and other works)

Both Collinson (1791) and Rutter (1829) mentioned the remains of further buildings to the south of the church, and some of these have been found in the geophysical survey. Unfortunately, the hoped-for evidence of the pre-existing Domesday settlement was not found, but such settlements, largely constructed of wood, are notoriously difficult to trace using geophysics, and may not anyway have occupied exactly the same space as the later priory.

The potentially Tudor garden in the orchard was completely unexpected, but enough detail has been found to show at least some of its features. Possible further

Fig. 14 Diggings against the church in the north walk of the cloister, 1992.

evidence of fairly high status activity at the site in the 17th-18th century was found in pottery and glass scatters disturbed by badgers in the moat area (YCCCART 2018), but their original provenance is in doubt due to the scale of earthmoving at Woodspring Priory in the 20th century.

Other structures and buildings probably reflect both the rural (and relatively poor) status of the priory, and its subsequent half-millennium of activity and change.

Some digital terrain modelling studies at the Priory revealed the true shape of the spring in the orchard (Fig. 15), as well as details of the moat (YCCCART 2014).

Lidar studies helped to clarify the modifications to the rhyne network (especially the Sand Rhyne) in the vicinity of the Priory, presumably to originally facilitate water transport of heavy goods to and from the site (YCCCART 2018). This seems to indicate a realignment of the Sand Rhyne, which originally ran through the priory precinct, and possibly even an engineered reversal of its natural flow (lidar illustrates the area of its origins at Sand is *c*0.5m lower than the area around the Priory modern entrance).

A watching brief on wall repairs and reconstructions in 2020 revealed carved stonework built into the walls: a worn remainder of a Tudor fireplace (among other carved freestone) was found, and details of construction methods recorded (YCCCART 2020a) (Fig. 17).

Further studies underway in 2021 are firstly (courtesy of the National Trust and the Toogood Partnership) geophysical survey of the area to the east of the priory orchard, where Tomalin and Crook (2007) recorded cropmarks, and speculated this might be the site of the early Norman chapel; further high resolution geophysics of the moat area to clarify earlier results (above); geophysical study of the area around the modern Woodspring Farm, especially the area of the former fishponds, and some more photographic studies of the priory buildings, which surprisingly, never seem to have been recorded in detail since Buckler's drawings of the late 1820s.

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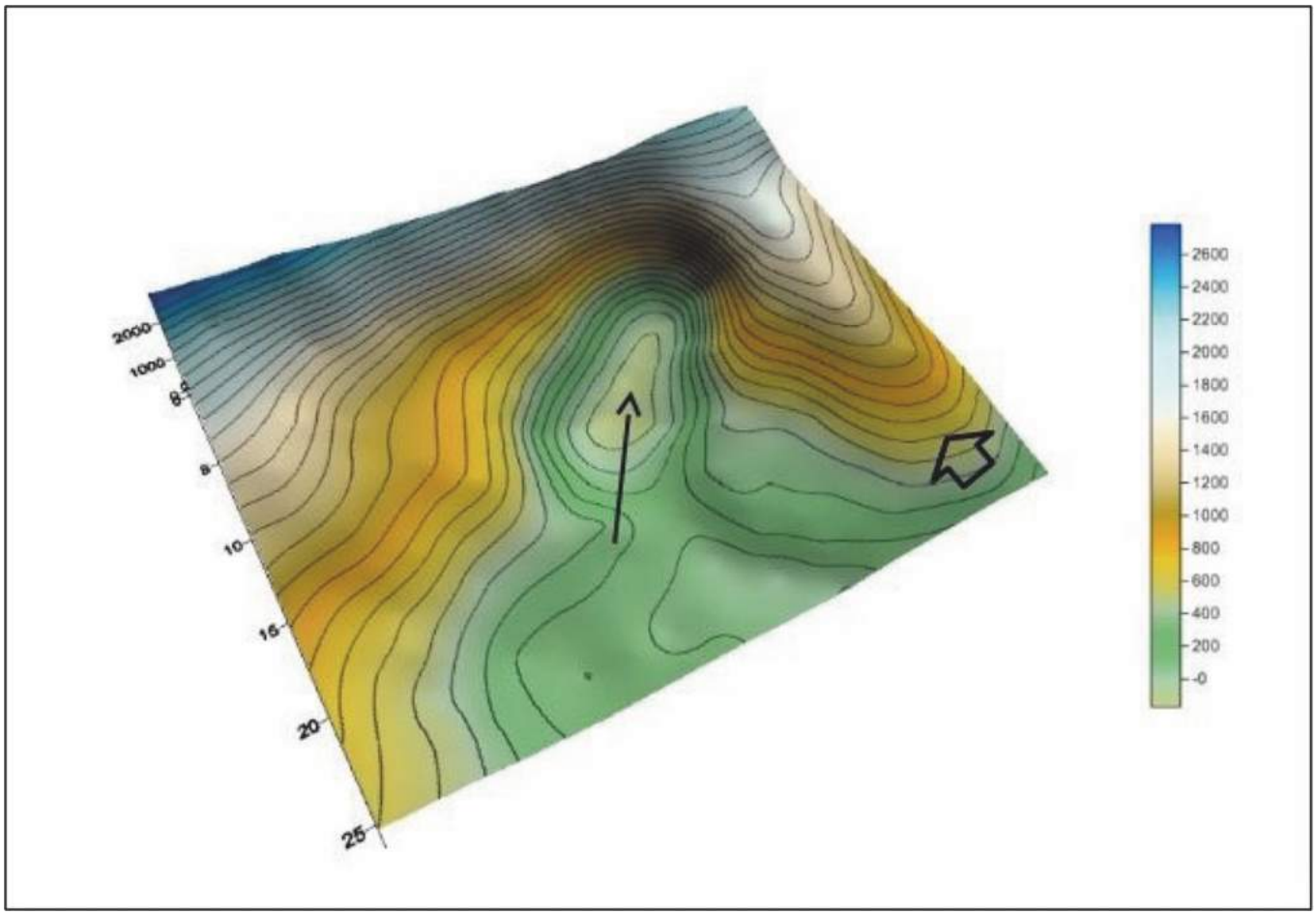

Fig. 15 Spring area, 3-dimensional appearance, looking north east. The hollow (arrow), containing the small tree and the linear bank (open arrow), can be clearly seen.

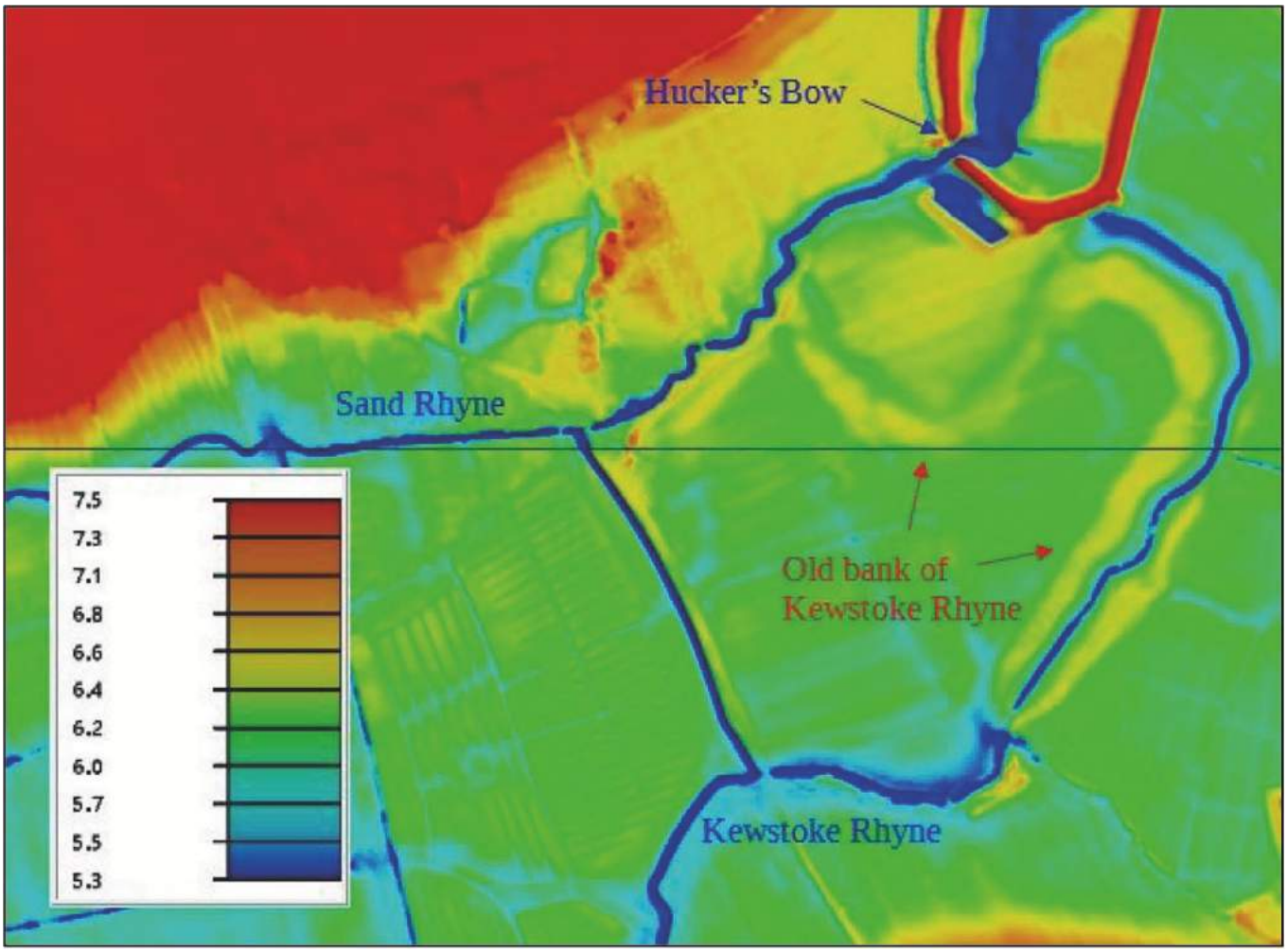

Fig. 16 Lidar trace of river and sea banks SE of Woodspring Priory.

Fig. 17 Worn remains of Tudor stone fireplace with vegetative spandrel, found used as a quoin in the wall behind the priory gatehouse (scale squares 2cm).

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REVIEW OF ARCHAEOLOGY
2018
Edited by Bruce Williams

Abbreviations

AA	Avon Archaeology
ACA	AC Archaeology
AS	Archaeological Surveys Ltd
BCAS	Bath and Counties Archaeological Society
BWA	Bristol & West Archaeology
CA	Cotswold Archaeology
COHA	Context One Heritage and Archaeology
MHHC	Michael Heaton Heritage Consultants
SEG	Saltford Environment Group
SG	Sumo Geophysics
SWA	South West Archaeology
TVAS	Thames Valley Archaeological Services
WA	Wessex Archaeology
YCCCCART	Yatton, Congresbury, Claverham and Cleeve Archaeological Research Team

The review of archaeology is arranged alphabetically and covers the four unitary authorities of Bath and North-East Somerset, Bristol, North Somerset and South Gloucestershire, formerly Avon County. If no author is indicated then a report on the fieldwork has not been received by the HER.

BATH AND NORTH-EAST SOMERSET

Bath

Bath Recreation Ground, ST 375480 164906. Detailed magnetometry was carried out. The results indicate the presence of a large number of former boundary ditches, many of which relate to larger, sub-divided plots of land utilised as kitchen gardens during the late 18th and early 19th century and also several later 19th-century land boundaries. The results also indicate that the larger land plots were bounded by trackways, with several parallel linear anomalies relating to flanking trackway ditches. The site of the 18th century formal Spring Gardens was located in the north western part of the site, the south western corner of which was later utilised as a timber and stone yard and subsequentlyVictoria Iron and Brass mill in the 1880s. Geophysical anomalies have been located within this part of the site, with several relating to formerly mapped boundary features but others could relate to features such as beds and paths associated with the former Spring Gardens.

Kerry Donaldson, David, Sabin, AS

Kingston Buildings, ST 75165 64745. A watching brief recorded two *opus signinum* surfaces, similar to those identified in previous investigations.

Marion Cardelli, CA

Land at 34–35 Lower Bristol Road, ST 74621 64405. An evaluation identified no archaeological remains.

Monica Fombellida, CA

The former Horse and Jockey, 30–31 Stall Street, ST 75026 64658. A watching brief during works to the exterior of the former Horse and Jockey public house, constructed *c*.1800, recorded signage associated with the Horse and Jocky and the Lamb Brewery Ltd, Frome.

Christopher Leonard, CA

2 Hermitage Road, ST 374407 166186. An archaeological watching brief was undertaken during demolition of a single-storey house and groundworks associated with the construction of a new dwelling. The largest of the six observed trenches (Trench 1) revealed probable field boundaries and/or drainage features of unknown date.

Ray Holt, WA

Henrieta Mews, ST 375320 165152. An archaeological watching brief revealed a limestone wall in the central part of the site which appears to correspond to a property boundary depicted on the 1888 OS. No further features or deposits of archaeological interest were observed during groundworks, and no artefactual material was recovered.

Andrew Donald, CA

Land to Rear of 2–4 Longacre, London Road, ST 375361 165837. An archaeological excavation was undertaken. No features or deposits of Roman date were identified during the works, although a residual sherd of Roman pottery was recovered from a later pit identified in the southwestern part of the stripped area. The pit itself contained material of mid 18th to 19th-century date. The material suggests that it is most likely to represent a rubbish pit for the disposal of either domestic waste or demolition material. A single abraded sherd of pottery of mid 12th to 15th-century date recovered from the subsoil may derive from previous ploughing and/or manuring of cultivated fields. An irregular feature, possibly associated with 19th-century terracing of the site, was identified cutting a probable buried subsoil of post-medieval date along the south-eastern edge of the stripped area. The fill of this feature was cut by the construction cut for a limestone wall, which probably represents a garden or plot boundary.

Paola Guarino, CA

Riverside House, London Road West, Lower Swainswick, ST 376490 166474. Groundworks associated with the construction of a new detached dwelling were monitored. No archaeological deposits were observed.

ACA

Former Bath Press, Lower Bristol Road, ST 373784 164 749, An archaeological evaluation. Six trenches were excavated. Several features that formed part of the 19th – century terraced houses that occupied the site into the early 20th century were found in the NW corner of the site. Extensive make-up and levelling layers were identified, which probably relate to post- Second World War clearance of the site and subsequent works. No archaeological features, deposits or artefacts that pre-dated the 20th century were identified.

M Joyce, CA

Monument Field, Prior Park, ST 376559 163061. A resistance survey identified the footing of at least one building as well as a N-S bank and ditch which could be a disputed section of the Wansdyke. All these features are also apparent on LiDAR.

Tim Lunt, BCAS

Royal Victoria Park, ST 374041 165379. Phase 2 of a geophysical survey revealed several different linear features amongst other anomalies, some of which are likely to be of recent date. Further work is required to better understand these features and their possible provenance.

Janet Pryke, BCAS

ST 373895 165397. A third phase of geophysical survey revealed more linear features, as well as a rectangular feature which may be the remains of a pond/boating lake.

Janet Pryke, John Oswin, BCAS

Lark Place, Upper Bristol Road, ST 373650 165247. Recording was undertaken during groundworks associated with a proposed residential development. Archaeological deposits encountered during the groundworks comprised only foundations relating to a 19th- century cottage.

ACA

Bathampton

Glebe Cottage, ST 377304 166188. A resistivity survey was undertaken to further investigate a possible medieval structure in front of Glebe Cottage.The results suggest that the stub wall continues to some depth, indicating that there was buried sub-structure. An apparent circular feature is also present underneath the front lawn of Glebe Cottage.

John Oswin, J Withey, BCAS

Meadow Farm, ST 376987,166339. Excavation of footings for a new garage and studio revealed wholly natural soils beneath shallow and localised modern disturbances. No archaeological remains were disturbed or exposed by the construction works.

Michael Heaton, MHHC

Bathwick

Henrietta Garage Mews, ST 75317 65152. A watching brief recorded a late 19th-century property boundary wall.

Andrew Donald, CA

Bathwick Down

ST 376635 164874. Archaeological monitoring and recording of groundworks associated with a new practice driving range at Bath Golf Club was undertaken. No archaeological features or artefacts were recorded during the watching brief.

AC Archaeology

Charlcombe

Settlement Field, Lansdown, ST 372576 170250. A geophysical survey was undertaken of extant earthworks known as the 'Romano-British Settlement' in a field to the east of Sir Bevil Grenville's Monument. Several anomalies of an archaeological origin are clearly visible. Cut features such as banks, ditches, walls and structural features have been identified in both the resistance and gradiometer data. Many of these features likely relate to the Roman settlement as well as potential Roman industrial activity.

John Oswin, Janet Pryke, BACAS

Claverton Down

School of Management, University of Bath Campus, ST 77428 64395. Simon Flaherty of Wessex Archaeology undertook trial trench evaluation of 0.3 hectares of land for the construction of the School of Management. The site had been truncated to bedrock during previous construction work.

Simon Flaherty, WA

Combe Down

6 Hill Avenue, ST 374627 162213. Monitoring of groundworks associated with the construction of a new house, the work was undertaken by Avon Archaeology in September 2018. The work recorded only several undated pits, believed to be evidence of post-medieval quarrying.

Emma Ings, AA

East Harptree

Orchard Close, ST 356601,155706. A series of foundation trenches, c.50m in total length and measuring 1m wide and up to 2.0m deep, were excavated under archaeological supervision. The only features identified belonged to a later 20th century garage (concrete foundations, walls and an inspection pit). A small assemblage of finds was recovered during the machining: Bristol/Staffordshire yellow slip ware with brown marbelled trails, blue transfer print; a sandy oxidised post-medieval coarseware with internal orange (clear) glaze; a sandy oxidised with reduced interior post-medieval coarseware with internal green glaze (these coarse wares are probably Bridgwater products) etc. These are all likely to be derived from a domestic context of C18-C19 date with residual elements.

SWA

Pinkers Farm, Middle Street, ST 356382 155479. A field evaluation by trial trenching was undertaken for the demolition of agricultural buildings. Four trenches were excavated which recorded no features or finds of archaeological significance.

C Randall, COHA

Freshford

Holzem Lodge, Freshford Friary,Friary Wood. Groundworks for the installation of a new soakaway were monitored A spread of modern unworked stone rubble was found directly overlying the clay natural. Fragments of residual medieval and post- medieval/modern pottery were recovered from the stone rubble.

WA

Peipard's Farm, ST 77658 60220. Historic building recording of the Grade II Listed early 19th-century farmhouse and 18th-century barn identified that both had been extended at multiple points throughout their history, and that the farmhouse had been subject to internal alterations.

Kimberley Dowding, CA

Hinton Charterhouse

Woodman's Cottage, *Friary Wood Lane,* ST 378818 159143. Monitoring of the excavation of 13 postholes for a willow panel fence within the scheduled area recorded a stone wall. This was probably of post- medieval date and may have been an earlier alignment of wall for the cottage.

Ema Ings, AA

Hinton Farm, ST 376652 157949. A detailed magnetometer survey was conducted by Sumo Geophysics in 2018, over approximately 1.4 ha of arable farmland at Hinton Farm, near Hinton Charterhouse. No definite archaeological responses have been identified. Plough lines and an underground service have been mapped, while small discrete anomalies are of uncertain origin.

Davies, SG

Keynsham

Land at Keynsham Riverside, ST 365569 168352. An archaeological watching brief undertaken on groundworks for a new learner's pool proved entirely negative and no archaeological features or finds were recovered.

Nick Corcos, AAU

Midsomer Norton

48 Silver Street, ST 366370 153417. An archaeological evaluation was undertaken. Three trenches were excavated and revealed five rectangular pits and a ditch. However, all five pits produced modern glass or coal as dating evidence. The ditch produced no artefacts but is also considered to be of modern date. No other features or material was identified.

M Paszkiewicz, TVAS

Land West of Silver Street, ST 66279 53110. An evaluation recovered a sherd of residual prehistoric pottery from a Roman pit. The pit was located within a Roman enclosure which includes possible internal divisons and which produced pottery of the late 1st to 4th centuries AD.

Paolo Guarino, CA

Newton St Loe

Church of the Holy Trinity, ST 370126 164872. Monitoring of underpinning works and cable trenches showed considerable evidence of modern disturbance relating to previous installation of services as well as a prior episode of underpinning works on the vestry. No archaeological features or deposits were observed. There was no evidence of burials and no finds were observed or collected.

Richard McConnell, COHA

Radstock

ACL House, Coombend, ST 368567 155447. Monitoring of groundworks for new housing recorded no features or finds of archaeological significance. The area appeared to have been used to dump colliery waste and was then heavily disturbed by recent constructions.

Peter Bonvoisin, SWA

Saltford

Coffin Field, south of Keynsham Manor, ST 367310 166387. Volunteers from BCAS and the Saltford Environment Group undertook an excavation at the site between. A single trench was laid out which identified no evidence of a structure, however numerous artefacts from the Romano-British period, including coins were recovered.

BCAS/SEG

Volunteers from Saltford Environment Group and Bath and Counties Archaeological Society undertook a second year of excavation. A geophysical survey was undertaken prior to the placement of 11 trenches of varying sizes but no remains of building were located. Numerous Roman artefacts were recovered including pottery, coins, iron objects, bones, tesserae, slag, glass and fragments of Pennant sandstone.

BCAS/SEG

Southstoke

Packhorse Lane, ST 374867 161439. An archaeological watching brief was undertaken during groundworks for a new dwelling. The work was requested owing to the area's location close to a Romano-British settlement. This involved excavation by machine to the south facing slope for the creating of new building foundations. No features or deposits of archaeological interest were recorded.

Kim Watkins

Temple Cloud

Paul's Wood, ST 361501 158142. A geophysical survey was initially undertaken in July and August 2018 by members of the Bath and Counties Archaeological Society. Four techniques were used to survey the field: magnetometry; magnetic susceptibility; twin probe resistance and resistivity profiles. The survey indicated a possible walled prehistoric

enclosure covering at least 100m by 100m, extending under the fence. The enclosure is sub-rectangular, with rounded edges and an entrance in the northwest corner. It is visible on historic maps.

John Oswin, Fiona Medland, BCAS

Peasdown St John

White Wicket Farm, Gassons, ST 371002 156204. An archaeological watching brief was undertaken during groundworks for the construction of a gallop and soakaways, This identified a mid to late Iron Age pit in trench 3, located close to the north-east boundary of the top field. An assemblage of mid to late Iron Age pottery and several animal bones were recovered within its fills. No further archaeological features or artefacts were observed.

Monica Fombellida, CA

Swainswick

Church of St Mary, Upper Swainswick. ST 375643 168418. Monitoring of a new drain along the W end of the church recorded only an earlier attempt at drainage in the form of a stone capped culvert.

Keith Faxon

Twerton

Freedom House, Lower Bristol Road, ST 372910 164740. Monitoring of 8 construction pits recorded no features or finds of archaeological significance, with soil deposits overlain by recent engineering and levelling works.

T Smith, WA

Whitchurch

Avon Garage, Staunton Lane, ST 362003 164791. Two evaluation trenches were excavated but only modern activity associated with the existing garage was identified.

Laszlo Lichtenstein, WA

BRISTOL

Castle Park, ST 59238 73133. Excavation of eight trial pits was monitored ahead of turf improvements. In the east, possible 17th-century deposits were uncovered at approximately 1m below ground level. A single sherd of 11th-/12th-century pottery was also recovered. Demolition rubble and an early 20th-century brick surface were seen in the 'arena' area adjacent to the bandstand within the former bailey of Bristol Castle.

Tracey Smith, WA

Filwood House, Charlton Road, St. George. ST 64008 73894. Historic building recording found that the earliest parts of the building date to the late 18th or early 19th century and was substantially remodelled in the mid-19th century. The remodelling created a villa of modest proportions with a neo-classical façade. Results from the monitoring of groundworks were largely negative. A soil layer containing possible coal working waste was exposed in one location, which was likely to relate to the historic industrial use of the area.

Simon Hughes and Andrew Passmore ACA

Lower Knowle Farm, Bedminster, ST 59294 70798. A standing building record was made of an agricultural building prior to demolition for redevelopment. The building, formerly a barn and possible dairy lies next to Lower Knowle Farmhouse, a Grade 2 listed building dating from the 17th century.

Bruce Williams, BWA

St Catherine's Place, Bedminster ST 58669 71517. An evaluation identified structural remains associated with a medieval/post-medieval water mill.

Simon Sworn, CA

Post Office Sorting Office, Cattle Market Road. Temple ST 59914 72433. A watching brief recorded three inhumation burials associated with a 19th-century cholera burial ground.

Adam Howard, CA

Redcliff Quarter Phase 2, Redcliffe. ST 59129 72638. Excavation uncovered evidence for the laying out of the medieval suburb of Redcliffe in the early 12th century, comprising plot boundary ditches including a 'Law Ditch' to the rear of the plots. The remains of early timber buildings fronting Redcliff Street were found. Later remains included a 14th-century stone building which crossed the rear of several plots. To the rear of the buildings, medieval and post-medieval cess pits, rubbish pits and hearths were present. Several pits yielded large quantities of finds (including some high-status decorated wares), as well as well-preserved organic material.

Simon Sworn, CA

Olympia House, Beaconsfield Road, St George. ST 62259 73437. Historic building recording of the Clouds Hill Boot Factory established that it was constructed in distinct stages over the 1890s and possibly later, and has been subject to numerous later alterations, although the external façade remains intact.

Peter Davenport, CA

Carriageworks, Stokes Croft, St Paul's ST 359182 174046. A standing building record was made of the former showroom of Perry & Co's Carriageworks. The Grade 2* building dates from 1862 and was the company's showroom for displayed wheeled horse-drawn carriages. The building is rectangular in plan, of three-storeys and built in the Bristol Byzantine (Rundbogen) style. The principal, west facing elevation displays ten arched windows on the first and second floors and five wider arched openings, which includes a doorway, on the ground floor. The interior of the building, gutted by fire and in a derelict state, displayed little of architectural interest.

Bruce Williams, BWA

Dove Lane, St. Paul's. ST 59684 73856. An evaluation and excavation identified the remains of 19th-century housing, including the complete floor plans of two mid-terrace properties associated with Cottage Place (later Dove Lane), the remains of semi-detached properties and associated outbuildings that once formed part of Cross's Gardens, and the basements of three properties that once formed part of Windsor Terrace.

Christopher Leonard, CA

Stoke Park Carriage Drive, Stapleton ST 6129 7712 – ST 6219 7745. The former historic Carriage Drive was assessed in eight locations through evaluation trenching to inform proposals to provide it with a permanent surface. The original surface was of limestone and pennant sandstone with patching material of clinker. The width of the drive varied between 2.8m – 4.10m.

Raymond K. Ducker, BWA

Castle Street/Marybush Lane, ST 59389 73108. Following on from evaluation trenching in 2015 a large area was opened to reveal both sides of the bailey ditch where it crossed in a N-S direction north of the culverted 12th century moat. Although much truncated owing to 17th century and modern land use, the ditch was found to terminate at Castle Street. In width it measured 6m across and was bottomed at a depth of 2.6m. Likely erosion of the counterscarp bank resulted in deep deposits of sandy marl filling the ditch, followed with its deliberate infilling with more marl probably in the 12th century. Assessment of ditch deposits and finds continues.

Bruce Williams, BWA

22 Orchard Street, ST 584662 729469. A watching brief in the courtyard behind No22 revealed post-medieval deposits and a brick barrel vaulted cellar dating from the 18th century.

Raymond K. Ducker, BWA

NORTH SOMERSET

Cleeve

Goblin Coombe Farm (Stallards Batch). ST4550 6528. After initial studies in the area in 2006, which appeared to show a rectangular anomaly on the hill at Stallards Batch, adjacent to the Farm, in an area where Roman finds had been made, the decision was taken to re-examine the area in 2016. Both the Batch and the adjacent field behind Goblin Coombe Farm were surveyed using both gradiometry and resistivity, but finds were surprisingly largely negative, due to geological features, or to 20th century levelling of old mined areas.

YCCCART

Cleeve Hill Windmill. ST4730 6607. The ruins of a windmill on Cleeve Hill, Cleeve (though formerly part of the manor of Brockley) are now deep in mature woodland. Past records of the site have been confused, although the existence of a windmill at Brockley since at least 1527 has not been questioned. There is no proof however, that it was on the current Old Windmill site. Conflicting accounts of the origin of the current structure appear unresolvable, other than to say that the current building is probably 18th century in date.

YCCCART

Congresbury

Congresbury Bridge, ST 4376 6390. Research has established that there was a bridge at Congresbury earlier than 1551. A new stone bridge was built in 1710, which by 1904 had a raised parapet and steel girders. This was replaced in 1924 by the current bridge, for the construction of which the course of the Congresbury Yeo was changed.

YCCCART

Iwood Farm. ST45076310. A 'wall' reported to YCCCART by a local detectorist was evaluated by excavation. No wall was found, but the material appeared to be rubble laid down to form a firm tractor track sometime in the 20th century.

YCCCART

ST45136326 An archaeological watching brief during drainage works at Iwood Farm, revealed features of post-medieval date (largely late 18th and early 19th century) in a trench in the yard north and west of the farmhouse. A sample of the ceramics and glass finds from the site was retained. The opportunity was also taken to make further records of the farm buildings, including their development from 1739 to the present, which largely reflects the fortunes of agriculture in general over that period: this included the photographic record of the typical structures of a late 20th century dairying yard. Walking the backfill of 600m of heat-exchanger trenches in the field south of the Farm, flints of Mesolithic character, and sherds of late Saxon pottery, added some new dimensions to the known archaeology of Iwood.

YCCCART

Land at Cobthorn Way, ST 4430 6399. Archaeological excavation exposed three corn driers and two areas for ironworking of Romano-British date, set within a landscape divided by boundary ditches forming enclosures and fields. A palaeochannel showed that the site had previously been situated adjacent to a small watercourse and this allowed for the recovery of palaeoenvironmental remains. The sequence of deposits was radiocarbon dated to between the Romano-British and Early Medieval periods. An assemblage of Roman pottery largely comprised coarse ware of the local Congresbury type. Other finds of note included two Roman coins, a Roman glass bead and a post-Roman bone and antler comb.

Paul Rainbird ACA

Mansbury, ST 4452 6415. The case was made on topographic, documentary and toponymic grounds for the natural rock outcrop at Wrington Road, Congresbury being the feature responsible for the placename 'Mansbury', known since 1567 at the latest, and potentially, the meeting place for the Hundred of Congresbury during the period

between the middle of the 11th century and the beginning of the 14th century.

YCCCART

St Andrew's Church. ST 4357 6376. A full documentary and photographic study of the parish church at Congresbury was published, from its origins in the post-Roman period to the present. A full record of carvings, woodwork and historic graffiti was carried out, including medieval wood carvers marks.

YCCCART

Congresbury / Cleeve. *Kings Wood boundary stones*. A number of small carved and apparently early 19th century boundary stones were found by YCCCART in King's Wood over several years beginning in 2005. Analysis of the position of these stones and their physical characteristics, along with the historic documentation for the area, has led to the conclusion that these were the private boundary stones in King's Wood of the vicar of Yatton, Thomas Wickham, in the third decade of the 19th century. A distinct oddity of these stones is that they face inward, unlike most boundary stones.

YCCCART

Felton
Bristol Airport, Silver Zone Extension (Phase 2), Broadfield Down. ST 50002 64575. An evaluation identified no features or deposits of archaeological significance.

Jonathan Orellana & Derek Evans, CA

Kewstoke
Woodspring Priory. ST 3433 6614. A 'miscellany' volume for Woodspring Priory was published, including the finding of a roof slate with medieval graffito of a church spire, finds of high quality 18th century material while monitoring badger activity at this Scheduled site, and a lidar study of the development of medieval and later waterways in and around the site.

YCCCART

Kingston Seymour
Churchyard cross, ST 4010 266847, *Village cross/war memorial*. ST4022766941. Kingston Seymour is one of those rare villages that possessed (and still does possess) both a village and a churchyard cross, both of medieval origins. Documentary, drawing and photographic evidence show their (*largely* undocumented) histories and changes from the 16th century to the present, including the building of the remaining socket of the village cross into a war memorial in 1920.

YCCCART

Weston-super-Mare
Locking Parklands School, ST 36849 60641. An evaluation identified two Roman ditches. Further ditches and a posthole produced no finds but might also be Roman.

Derek Evans, CA

Wick St Lawrence
Village cross, ST 36604 65387, *Churchyard cross,* ST 3664 265435. Wick St Lawrence is another of those rare villages that possessed (and still does possess) both a village and a churchyard cross, both of medieval origins. Documentary, drawing and photographic evidence show their (*largely* undocumented) histories and changes from the 16th century to the present.

YCCCART

Wrington
Wrington Flood Storage Area. ST 4768 6269.An archaeological trench evaluation was largely negative, with the small number of geophysical anomalies targeted found to correspond with modern land drains.

Alex Farnell ACA

Yatton
Arnolds Way Primary, North End, ST 41835 66913. Monitor was undertaken of geotechnical test pits that were located to avoid suspected archaeologically sensitive areas. The pits did not impact any archaeological remains.

Michael Fleming, WA

SOUTH GLOUCESTERSHIRE

Alveston
10 The Down, ST 62933 88093. A watching brief for a new dwelling revealed no archaeology present.

Raymond K. Ducker, BWA

Land at The Copse, ST 63489 88175. A watching brief in the garden revealed a post-medieval well and boundary wall extant on the 1st edition OS.

Raymond K. Ducker BWA

Charfield
Land at Churchend Lane, ST 72228 91439. An evaluation identified a Roman road and flanking ditches correlating closely to the projected course of the Bitton to Berkelely Roman road. A small assemblage of medieval and post-medieval artefacts recovered from the associated ditches indicates the road may have been long-lived and subject to remodelling.

Daniel Sausins, CA

Filton
Charlton Wood Primary Academy, ST 60016 81248. An evaluation identified no features or deposits of archaeological significance.

Sian Reynish, CA

Hangar 16U, former Filton Airfield. ST 59544 80429. Historic building recording was undertaken of a 1917 general service aeroplane repair section shed associated with the Royal Flying Corps Aircraft Acceptance Park. The

hangar largely retained its original form, with changes to its fabric taking place in the mid and late 20th century.

Andrew Passmore, ACA

Scholars Chase, Coldharbour Lane, ST 62640 77929. An evaluation identified an undated ditch that correlated closely to a mapped 18th-century field boundary.

Alex Thomson, CA

Longwell Green

Land rear of 57 Court Farm Road, ST 365567 170594. Groundworks revealed no archaeological deposits or finds.

Raymond K. Ducker, BWA

Marshfield

Land adjacent to The Manor, Church Lane, ST 78297 73678. An evaluation identified no features or deposits of archaeological significance.

Sara-Jayne Boughton, CA

7 St Martin's Lane, ST 77546 73672. A watching brief for a new dwelling revealed no archaeology present.

Raymond K Ducker, BWA

Oldbury-on-Severn

Pound House, ST 60979 92570.
Groundworks for an extension to a domestic property were monitored and revealed no archaeology present.

Shuan McConnachie, WA

Old Sodbury

Menage, Woodcock Farm, ST 76304 82729. An evaluation and subsequent watching brief identified an isolated prehistoric pit.

Daniel Sausins, CA

Olveston

Priestpool Farm, Ingst Road, ST 59177 87975. A watching brief identified no features or deposits of archaeological significance.

Alison Roberts, CA

Over

The Wave, Washingpool Farm / Over Court Farm,. ST 358136 182961. Excavation identified a natural combe which had filled with alluvium, possibly during the Middle Iron Age. There was evidence for Middle Iron Age to Early Roman ground consolidation at the eastern end of the combe, and this was probably contemporary with a circular ditch which enclosed pits, and with two areas of intercutting sub-circular ditches. Later remains dated to the 3rd to 4th centuries, and included boundary ditches, enclosures, an industrial structure, and two inhumation burials. Post-Roman alluvial deposits sealed many of the earlier features. Medieval boundary ditches and the remnants of ridge and furrow cultivation were also present.

Daniel Sausins and Tom Brindle, CA

Bloody Acre Camp, Tortworth Estate. ST 69049 91508. An evaluation identified a previously unrecorded rampart and quarry ditch on the southern and eastern edges of Bloody Acre Camp Iron Age hillfort (Scheduled Monument no. 1002483). A pit and a posthole were also found. A large square post-medieval building, potentially a hunting lodge or garden/banqueting house, a limestone cobbled surface and a carriageway were also present.

Peter Busby, CA

Pilning

20 Marsh Common Road, ST 55879 84419. Trial trench evaluation ahead of residential development did not reveal archaeological remains. However, sequences of estuarine alluvial sediments with intermittent peat layers deposited in tidal flats and saltmarsh environments were recorded.

Daniel Connor, WA

Severn Beach

M49 Avonmouth Junction, ST 55890 82950
A borehole survey supplemented by excavation of two evaluation trenches were undertaken. Deposits corresponding with the Wentlooge Formation were studied. Estuarine alluvium was deposited in tidal flats and saltmarsh environments. Peat was laid down during marine regressive phases, representing a range of semi-terrestrial environments including reed swap and carr woodland. Stabilization horizons, typically at or above 3.75m above Ordnance Datum, represent incipient or poorly formed soils formed during times of reduced marine influence. Archaeological remains have been recorded from these horizons elsewhere, although no anthropogenic remains were revealed during this work. The deposits are laterally discontinuous and difficult to correlate between boreholes.

Richard Payne, Simon Flaherty,WA

Stoke Gifford

Dings Roman Villa, ST 360955 177720. Although much of the original villa building had been robbed out the outline of it could still be ascertained in plan and some built features (such as walls and floor surfaces) survived. There was no evidence for mosaics but the underfloor heating system was well preserved and included the flue system, furnace and pilae stacks. The villa started life as a simple corridor house, before wings were added to the north and south followed by a rear extension to the east.

CA

Thornbury

Land at Stokefield House, ST 6352 9035. Archaeological monitoring and recording produced negative results with no evidence uncovered for archaeological features, deposits or finds.

Paul Rainbird ACA

Land adjacent to Grey Gables, Upper Morton, ST 64598 91443. Monitoring of groundworks ahead of construction of a new dwelling revealed no archaeology present.

Laszlo Lichtenstein and Jamie McCarthy, WA

Wickwar
Land South of Poplar Lane, ST 72709 87698. An evaluation identified an undated ditch and medieval or post-medieval ridge and furrow remnants.

Charlotte Haines, CA

Winterbourne
Land to the south of Filton Road, ST 63211 78054. An evaluation and excavation identified a palaeochannel and two phases of Roman peripheral settlement activity in use between the 1st and 4th centuries AD, comprising enclosures, field boundary ditches and the remains of a ring ditch associated with a roundhouse. Deliberate ground consolidation between the enclosures and the course of the palaeochannel was potentially related to stock management.

Alistair Barclay and Jessica Cook, CA

REVIEW OF ARCHAEOLOGY
2019
Edited by Bruce Williams

Abbreviations

AA	Avon Archaeology
ACA	AC Archaeology
BCAS	Bath and Counties Archaeological Society
BWA	Bristol & West Archaeology
CA	Cotswold Archaeology
COHA	Context One Heritage and Archaeology
L-PA	L-P Archaeology
MHHC	Michael Heaton Heritage Consultants
PA	Prospect Archaeology
MS	Magnitude Surveys
SEG	Saltford Environment Group
SG	Sumo Geophysics
TVAS	Thames Valley Archaeological Services
WA	Wessex Archaeology
YCCCART	Yatton, Congresbury, Claverham and Cleeve Archaeological Research Team

The review of archaeology is arranged alphabetically and covers the four unitary authorities of Bath and North-East Somerset, Bristol, North Somerset and South Gloucestershire, formerly Avon County. If no author is indicated then the report on the fieldwork has not been received by the HER.

BATH AND NORTH-EAST SOMERSET

Bath

Bath Cricket Ground, ST 375579 164658. Five evaluation trenches were excavated in the car park area. No significant archaeological features, deposits or finds were found to be present.Degraded 19th-century brick suggests the area was subject to extensive landscaping in the Victorian period, and earlier deposits may have been removed to the railway embankment.

Cheryl Green, COHA

Bath Recreation Ground, ST 6200 67481. Geoarchaeological assessment identified Pleistocene river gravels overlain with Holocene alluvium, modern made ground and imported topsoil associated with the extant Recreation Ground.

Trial trench evaluation revealed a small quantity of residual prehistoric, Romano-British and medieval finds. However, there was no evidence for anything other than agricultural activity prior to the 18th century. Between the 1730s and 1798 the Spring Gardens occupied part of the site. Boundary ditches associated with these gardens were revealed, as well as boundaries of adjacent contemporary kitchen gardens. A further ditch may relate to a planned residential development that was abandoned following the outbreak of war with France in 1793. A stone wall and fragments of brass-melting crucibles probably evidence the 1882–1894 Victoria Iron and Brass Works.

Richard Payne, Ray Holt, WA

Bath Quays North, ST 74879 64476. A watching brief recorded the possible foundations of a 19th/20th-century building. An 18th-century made ground layer sealing alluvial deposits was also present.

Monica Fombellida, CA

Darlington Wharf, ST 375943 165562. A programme of building recording and an archaeological watching brief was undertaken during redevelopment of Darlington Wharf. The work gave further indication of the character of the wharf, and suggests that most of the historic structures of the site were situated close to the boundary wall.

Michael Heaton, MHHC

Parkside, Charlotte Street, ST 374600 165029. A watching brief was undertaken on several trenches and a soakaway. The work located an undated north-south aligned stone culvert correlating with a field boundary visible on the first edition OS. Modern features had truncated most of the site.

Peter Busby, CA

No.9 Partis Way, Lower Weston, ST 72530 65650. An evaluation identified no features or deposits of archaeological interest.

Sara-Jayne Boughton, CA

Homebase, Pines Way, ST 74189 64831. An evaluation and watching brief identified a surface, possibly associated with a Roman Road, and deposits related to 19th-century railway works.

Daniel Sausins, CA

Roman Baths Museum Archway Project, York Street, ST 75070 64700. Historic Building Recording of several of the Grade I Listed Roman Baths Museum buildings identified that the complex is an *ad hoc* grouping of three distinct buildings with different origins, gradually united under the umbrella of the Roman Baths Museum. Formerly a laundry, boiler house and workshop, the buildings have undergone substantial alterations from their first iterations and are important historically for the role they played in the revival of the spa in the late 19th century, and its gentle decline in the 20th.

Peter Davenport, CA

Mineral Water Hospital, Upper Borough Walls, ST 74949 64843. An evaluation identified a layer containing 12th and 13th-century pottery which had been truncated by a medieval refuse pit. Post-medieval garden soils associated with the vicarage of SS Peter and Paul. Construction cuts for features relating to the Mineral Water Hospital grounds were also present.

Sara-Jayne Boughton, CA

Prior Park, ST 376095 163404. A preliminary archaeological evaluation revealed the presence of possible 18th century path surfaces near the Horseshoe Path, as well as a pit and a possible 20th century quarry. On the dam itself, the ornamental cascade was uncovered and two phases in its construction were identified relating to the changes in the size of the dam and lake. The structure was found to have been damaged extensively by water ingress over time despite evidence of phases of running repairs.

L Brigers, PA

ST 376173 162910. A resistivity survey was carried out at sites where a pinery (pineapple house) and later bath house could have existed. Evidence of pathways and a possible fountain base were seen at the possible pinery site which may correspond to features shown in a 1750 etching. No clear results were visible at the bath house site, but research has shown that a stray Luftwaffe bomb in 1942 exploded at this spot throwing up ashlar masonry.

BCAS

Roman Baths, ST 375075 164696. A number of resistivity profiles were measured within the precincts of the Roman Baths to continue the search for the drain from the Hetling Spring, identified in a survey in January. Several profiles were made, some at diagonals due to issues of space in the underground vaults. One possible deep location was noted, along with other possible shallow sites,

John Oswin, COHA

St Martin's Hospital. Evaluation trenching revealed no finds or features of archaeological interest.

A Socha-Paskiewicz, TVAS

Royal Mineral Hospital, ST 374953 164842. A single trench was excavated in the rear courtyard of the Mineral Water Hospital. A medieval rubbish pit was found, cut into a layer containing 12th and 13th century pottery. Pathways and garden soils are associated with the site's use as a vicarage garden were identified, which itself was truncated by later drains and walls. No Roman deposits or features were observed, perhaps because the evaluation trench was too shallow.

S J Broughton, CA

Royal Victoria Park, ST 374128 165479. A fourth phase of geophysical survey continued in the NE of the park. Numerous linear features were identified, including some which may relate to the transportation of water across the park from a spring in the north to a pond or boating lake.

Janet Pryke, John Oswin, BCAS

Sydney Gardens, ST 375815 165447. An archaeological watching brief was undertaken on geotechnical works undertaken at Sydney Gardens. Three trial holes and ten pits were excavated across the site. No archaeologically significant features or deposits were recorded.

Thomas Rogers, Worcestershire Archaeology

ST 375660 165321. Three test pits were hand excavated in the former tennis court primarily to interrogate previously identified geophysical anomalies. The clearest of these related to a trackway or ride around the former pleasure gardens as laid out in 1790s. A packed stone surface in one test pit is thought to be the remains of the ride, and in another a collapsed stone structure was recorded overlying a greenish clay silt deposit from which Roman pottery was recovered. Roman pottery was also found in an overlying soil layer.

T Cornah, Worcestershire Archaeology

ST 375654 165314. A ground penetrating radar (GPR) survey was conducted by over an area of Sydney Gardens, east of the Gardner's Lodge. A number of anomalies were detected, especially to the north- east corner of the survey area, which may be suggestive of possible burials.

M Wajzer, M R Udyryz-Krawec, SG

University of Bath, The Avenue, Claverton Down, ST 377739 164192. A watching brief was undertaken during groundworks associated with the establishment of a new sports pitch and training area. No significant archaeological features, structures, or deposits were identified.

Nick Corcos, AA

Bathampton

Glebe Cottage, ST 377306 166191. Trial excavations undertaken by BACAS revealed that there was no medieval structure other than the arch, but that this was probably a reconstruction by Edward Allen, who had been a tenant in 1848. The feature under the lawn was a large water tank, still filled by a conduit from a local water source.

BCAS

Cameley

St James's Church. ST 361028 157571. A geophysical resistance survey was undertaken on the nave floor alongside a profile to the north. No crypt was located and the profile indicates only shallow burials were likely underneath the nave floor.

Fiona Medland, John Samways, John Oswin, BCAS

Charlcombe

Monument Field, Lansdown. ST 372292 170165. A geophysical survey was undertaken in the field immediately south of the Grenville Memorial. Both magnetometry and

magnetic susceptibility surveys were completed, also a twin-probe resistance survey covering about one third of the area, which included almost all the area where the magnetometry had indicated targets. The survey complements a geophysical survey carried out by BACAS in March 2018 in Settlement Field, immediately to the east, and indicates that the Roman settlement in this eastern field extends under the modern field wall by at least 150m westwards and 150m northwards. A series of disturbance around the site could be related to the 1643 Battle of Lansdown, and long linear earthworks may relate to practice trenches excavated during the First World War. Other features including a pond and a mound (possibly a barrow) were also tentatively indicated.

John Oswin, Janet Pryke, BCAS

Claverton Down

Arrivals Square, University of Bath Campus, ST 77428 64395. Monitoring during the construction of Arrivals Square confirmed the result from the adjacent School of Management site obtained the previous year. No archaeological remains were present.

Ray Holt, Marek Lewcun, WA

Bushey Norwood, ST 777648 164804. The National Trust requested Bath and Counties Archaeological Society to carry out a resistivity survey to ensure tree planting did not impact any of the pre-Roman field banks recorded on the site. The opportunity was taken to also survey three specific areas where previous excavations and lidar evidence had indicated an Iron Age or earlier building enclosure (ST777647), round depressions in one field bank (ST776647), and a possible Roman road (ST781641). Clear evidence of the stone perimeter to the enclosure excavated by Skrine in 1888 could be seen and also a possible road line.

Tim Lunt, BCAS

ST 377149 164375. An archaeological watching brief during groundworks revealed no archaeological features or deposits.

WA

Combe Down

Summer Hill House, ST 376458 162052. The construction of a new garage was monitored after the discovery of a Roman stone coffin by builders. {1}

The coffin was uncovered by builders during the construction of a garage. After an initial site visit, a watching brief was undertaken to clean up and record the exposed deposits and leave them in-situ. In the NE section the Roman coffin was exposed and damaged by building works. The subsequent exposed debris and deposits were hand cleaned and recorded. The coffin was aligned roughly NW-SE and had evidence of tool marks, likely carved from a single block of fine Oolitic Bath Stone. The coffin contained a single skeleton. A possible ditch/natural feature was also observed 1m SW of the coffin, and may be geological.

Keith Faxon

North Road, ST 375987 162259. A GPR survey was undertaken on the road and land around North Road. The survey was successful in locating the interface between the mixed quarry fill and the stratified limestone beds overlying the mines. Many other discrete anomalies were noted in the subsurface including possible shallow pits or unstable limestone. Results of the trials in Firs field do not show any evidence of the mine roof at depths between 5–5.9m.

C Jones, Stratascan

Compton Dando

Land at Woodborough, Peppershell Lane, ST 364141 164985. Monitoring of ground works for a new stable block recorded no features or finds of archaeological significance as the area had been previously terraced into the hillside.

Nick Corcos, AA

Compton Martin

St Michael's Church, ST 354480 157003. An archaeological watching brief was undertaken for a new disabled access route. The remains indicated a former 19th century access to the church and two unmarked burials of a probable medieval date; the former church boundary walls were also located.

James L Brigers, PA

East Harptree

Land to the rear of Yearton House, Water Street, ST 356652 155710. An archaeological trial trenching evaluation was carried out in response to a proposed development. Two archaeological features were recorded, suggesting the site was the location of agricultural fields during the medieval period and an orchard plantation during the post-medieval period.

Benjamin Sleep, L-PA

Freshford

Iford Manor. Foundations for groundworks for a new visitor facility at Iford Manor monitored and revealed the foundations of a small square building from the 18th or 19th century, associated with the boundary wall. No other significant archaeological remains were encountered.

Michael Heaton, MHHC

Keynsham

Rear of 39 High Street, ST 365468 168676. An archaeological watching brief was undertaken during groundworks associated with the development of a new residential building. This is after an evaluation in 2017, which discovered a section of Keynsham Abbey's boundary wall. Foundation trenches for the new building revealed a further three segments of this wall, which revealed the boundary formed by the wall was well respected long after the abbey went out of use, and a rubble layer suggests it was deliberately removed for the construction and realignment of properties in the 19th century.

Rachel Heaton, AA

Midsomer Norton
'Free Rangers Nursery', Welton Manor Farm, ST 67042 55024. Historic Building Recording of a collection of late-19th and 20th-century former farm buildings identified that they were of stone and brick construction with modern concrete alterations.

Kimberley Dowding, CA

Land West of Silver Street, ST 66267 53146. An excavation identified two possible cremation graves and several ditches and pits, all of probable prehistoric date. A Late Iron Age to Early Roman square agricultural enclosure was replaced by an enclosure from which a large quantity of 2nd–4th-century pottery was recovered. A 3rd–4th-century rectangular enclosure in the same location was also found and together these remains indicate continuity from the Late Iron Age through to Late Roman periods. Internal and external features were present in all phases and several Roman pits were identified across the site. A medieval well, pit and a field boundary ditch were also present.
Sara-Jayne Boughton, CA

Newton St Loe

Dog Kennel Wood, ST 369120 163808. A geophysical survey was undertaken to investigate a mound next to the playing field. A ring of high resistance around the mound was detected, possibly an area of stone. Other possible features, including a rectangular feature, were also noted, but require further investigation.

John Oswin, COHA

Peasedown St John
White Wicket Farm, Gassons, ST 70837 56156. A watching brief identified a single pit containing animal bone and pottery of Mid to Late Iron Age date.

Sara-Jayne Boughton, CA

Radstock
Land close to Old Road, Writhlington, ST 370486 154540. A fluxgate magnetometer survey was undertaken. Magnetic enhancement identified a hollow way as noted in the desk based assessment. An area to the NW of the field appears to yield a couple of enclosures and small magnetic disturbances which have been suggested to be lime kilns. Other anomalies were noted throughout the field, including possible curvilinear features of an anthropogenic origin.

Leanne Swinbank, MS

Saltford
Coffin field, south of Keynsham Manor, ST 367310 166387. . A geophysical survey was undertaken prior to the placement of 11 trenches of varying sizes but no remains of building were located. Numerous Roman artefacts were recovered including pottery, coins, iron objects, bones, tesserae, slag, glass and fragments of Pennant sandstone.

BCAS/SEG

St Catherine
Hollies Lane, ST 377983 169045. A geophysical survey was undertaken on a spur leading up the hill towards Charmy Down, off Hollies Lane, to investigate a possible earthwork mound in the field., The results suggest the mound may be man-made, but further work is needed to identify the feature

T Jackson, John Oswin, BCAS

Weston
All Saints Church, ST 373108 166358. Three trenches were excavated. The only definitive evidence for burials was in Trench 3 where the eastern end of a 17th/18th century stone tomb, and a possible Victorian earth-cut grave were encountered. A stone capping covering a brick- lined void with sloping brick sides in Trench 2 suggest two brick vaults were constructed side by side, with the capping merely covering the void between the two. The brickwork could be as early as the late 18th century, although a Victorian date is perhaps more likely.

Clare Randall, COHA

BRISTOL

Castle Park, ST 59238 73133. The installation of an irrigation tank was monitored. A wall was revealed that may have been part of an early non-conformist chapel, and pre-dated the foundations of the Castle Green Methodist Chapel (built *c*.1740) that were also revealed. A wall of a further building occupied in 1927 by Eagles Paper was also seen. Both buildings were later assimilated into a Bristol Co-operative Society warehouse and a basement was inserted into the former chapel. The concrete floor of this basement was re-used as the base for the irrigation tank.

Roy Krakowicz, WA

Stapleton
Purdown Heavy Anti-Aircraft Battery, Stoke Park Estate. ST 61134 76470. A watching brief identified no features or deposits of archaeological significance.

Monica Fombellida, CA

Avon Fire Authority Headquarters Scheme, Temple Back, ST 59281 72841. An evaluation identified a possible medieval ditch, wall, and post-medieval structural remains.

Daniel Sausins, CA

Engine Shed 2, Temple Circus. ST 59428 72401. A watching brief recorded probable alluvial deposits overlain by what was either a buried subsoil/cultivation soil or dumped deposits intended to raise the ground level. A small quantity of abraded mid-12th to mid-13th-century pottery was recovered from one of these deposits. A sandstone wall was found, corresponding to part of a building first depicted on early 19th-century historic mapping. Brick and concrete structures relating to the Bristol Harbour Railway were also present.

Noel Boothroyd, CA

ND6 Avon Street, Temple Quay. ST 59694 72818. A watching brief identified fragmentary remains of post-medieval structures, including a well.

Noel Boothroyd, CA

Land behind Nos 2 and 4 Ashley Road, St Pauls, ST 359182 174046. An excavation was undertaken to re-assess the findings from an earlier trench evaluation at the site that identified a possible ditch of civil war date. The excavation confirmed the ditch was almost certainly in use in the 17th century and that its location suggests it may have been dug as the city and county boundary. Another, parallel ditch lying just 2 metres to the north was possibly connected with the civil war spurwork recorded in this location by a contemporary writer. It contained two graves, one of a young man between the age of 25–35 years, and the other, a woman between the age of 30–45 years. She was buried in a six-sided oak coffin and both graves contained a single clay tobacco pipe bowl dated as Bristol types between *c*1630 to *c*1650, so almost certainly dating from the civil war period (see excavation report in this volume).

Bruce Williams BWA

55–83 Newfoundland Circus, St Pauls, ST 5959 7366. A staged programme of fieldwork involving preliminary evaluation trenching followed by selective area excavation and watching brief was undertaken between 2018 and 2020, in advance of and during the redevelopment of the site for a new Moxy Hotel. The development site straddled the suggested route of a Roman road, Margary's M54, between Bath and Sea Mills and an area that was subsequently occupied by a rank of late 18th to early 19th-century tenement buildings which fronted Newfoundland Street. The northern part of the site incorporated part of the former Howlands Burial Ground, a private cemetery with chapel attached that operated between 1804 and 1854.

Evaluation trenching revealed substantial buried remains of the former 19th-century tenement buildings along the Newfoundland St frontage, a selected area of which was subsequently fully excavated. No evidence of any Roman activity was identified and the earliest evidence for activity on the site, albeit of low intensity, dated to the later medieval period. Trenches sited to evaluate the area of the former burial ground revealed extensive modern disturbance associated with 20th century structures, which indicated that a large but unknown number of burials were removed without record in the second half of the 20th century.

A watching brief undertaken during the preliminary construction stage of development identified an area containing undisturbed human burials adjacent to the northern boundary of the site. A total of 24 earth-cut graves were subsequently fully excavated and the remains of 126 stacked inhumation burials were removed.

Andy Young, Avon Archaeology

NORTH SOMERSET

Backwell

Moor Lane, ST 47820 69070. Monitoring was undertaken of 2.95 hectares of residential development. Alluvial deposits had been cut by boundary ditches of potential Romano-British and post-medieval/modern date. Nine sherds of Romano-British Congresbury greyware were recovered, although seven of these were unstratified. Modern made ground deposits covered some of the site.

Ray Holt, WA

Banwell

Towerhead House. ST 4121 5942. Banwell Archaeological Society requested that YCCCART investigate the location of the demolished Elizabethan house at Towerhead. Resistivity and terrain modelling surveys have confirmed the documentary references to the site (built for Bishop Godwyn around 1584) as being in the former orchard to the north-east of the current house. A small remnant of gable end of the building survives in the field wall between the garden of the current house and the field to its east.

YCCCART

Cleeve

Goblin Coombe Farm (Stallards Batch) , ST 4562 6529. In view of the large number of finds, largely of Roman date, from Stallard's Batch, geophysical surveys were carried out in 2006 and 2016. Neither was successful in finding any substantial Roman building, so an alternative approach, trial pitting, was tried with the excavation of 16 1 x 1m pits. This, too, was unsuccessful in finding any substantial buildings. The range of pottery found was not great, although it did include a few sherds of late Iron Age corky fabric vessel(s), and there were virtually no fine wares. The nature and location of Roman activity at the Batch remains elusive.

YCCCART

Congresbury

West Mill, ST 4410 6362, Iw*ood Mill,* ST 4541 6302. A detailed documentary study of these two mills from their origins (including large-scale river engineering) in the late Saxon period to the present, was carried out and published. Iwood Mill seems to have originated as, and remained, a small corn mill until its destruction by fire in the late 19th century (although complex water management features remain). West Mill, although primarily a grist mill, spent some time in the second quarter of the 18th century as an iron-slitting mill for industrialised nail-making, using iron imported from Sweden and Russia. The site of West Mill has been redeveloped for housing.

YCCCART

Iwood Farm, ST 4507 6323. A rubble patch and an apparent stone wall noticed during fieldwalking of ditch works were evaluated by trial excavation in two adjacent recently cleared ditches close to and south-west of, Iwood Farm. The first

was a pile of modern dumped stone, lying on top of barbed wire: the second an unusually regular natural banding in the underlying Mercia Mudstones.

YCCCART

Land west of Locking Parklands, ST 3629 6035. Archaeological monitoring and recording exposed a cemetery with eighteen graves dating to the early medieval period. Seven of these graves were present in the uppermost fills of an earlier enclosure ditch of Romano-British date which extended across the site. Eight of the individuals had been buried with one or more objects ranging from iron knives, glass beads and other necklace components, a buckle, a bone and antler comb, an iron purse ring and a whetstone. The artefacts present suggest that the individuals lived and died in the 7th to 8th centuries AD.

Chris Blatchford and Naomi Payne ACA

Kenn

'Brickyards', ST 4141 6767. Three fields called 'Brickyard(s)' on the Yatton Tithe Map correspond to a reference to The Old Brickyard in 1806. Magnetic anomalies in the gradiometry survey of the first field suggest the possibility of brick burning in clamps, and the hypothesis is put forward that this was for the construction of The Brick House and its stables, garden walls and other features in North End, an anomalously early and large brick building for the area. Gradiometry surveys of the other two 'Brickyards' fields only revealed natural palaeochannels.

YCCCART

Kingston Seymour

All Saints' Church, ST 4009 6685. A thorough photographic record of the church, inside and out, and the churchyard was carried out. The existence of a priest (Aelfric) at Kingston in the reign of Edward the Confessor is significant: although no evidence of pre-Norman work survives in the church today, there was probably a structure at this site in the late Saxon period

YCCCART

Nailsea

Land off Trendlewood Way, ST 47983 69804. A trench evaluation revealed that the majority of potential features previously identified by geophysical survey were caused by soil movement within the geological sandstone brash. An ephemeral undated rectilinear enclosure may have been associated with a nearby 19th-century coal pit.

Dan Connor, WA

Portishead

North Somerset Coast. The coast of North Somerset and Somerset, including the parishes of Walton-in-Gordano, Clevedon, Kingston Seymour, Wick St Lawrence, Kewstoke and Weston-super-Mare was a cause for concern during the 16th century. Any military intervention by a foreign power which interrupted the trade of the internationally important port of Bristol was to be avoided at all costs. The international situation seemed to make an invasion possible. A 'view from the sea' (The Coste of England uppon Severne) of 1539, recorded coastal defences and seamarks between Portishead and Porlock Weir, but whether this was recording existing sites, or planning for creating them, is not clear from context. It is firmly suggested that they were never built.

YCCCART

Priddy

Haydon Grange, ST 5256 5421. As part of the study of Roman roads and potential Roman roads around Charterhouse-on-Mendip, a geophysical and terrain modelling survey was carried out on the visible road earthwork at Haydon Grange, Priddy. As well as characterising this earthwork, the field work was exploring to what extent other, less visible roads would respond to various types of survey. Terrain modelling and resistivity survey, while investigating different physical aspects of the road, agreed well. Some aspects of the road's medieval and post-medieval 'afterlife' were explored. It only seems to have gone out of use with the enclosures of the late 18th century.

YCCCART

Yatton

Land NE of Ham Farm, North End, (exact location withheld at request of the landowner). Gradiometer surveys over land to the NE of Ham Farm, Yatton, revealed a network of magnetically enhanced linear features, assumed to be ditch complexes, with features inside the ditch enclosures indicating domestic and / or industrial activity. Since earlier work in this area in the 1950s and 1990s found quantities of Roman finds and features, it is highly likely that this activity dates to the Roman period.

YCCCART

Land by Kingston railway bridge, ST 4161 6731 Gradiometry survey of this field identified one area of particular interest. The anomalous area was subsequently subject to resistivity survey, which did not help in the understanding of their nature. After extensive air photographic, lidar and documentary study, no current interpretation of their nature can be safely made, although they may relate to local industrial activity, possibly to the railway and railway bridge work camps.

YCCCART

Weston-Super-Mare

Weston College Construction Skills Centre, Land off Locking Head Drove, ST 36330 61245.

Archaeological evaluation and geoarchaeological assessment were undertaken in the vicinity of a motte and bailey castle (NHLE 1008301) and revealed a complex sequence of silts, stasis horizons and peat typical of upper Wentlooge Formation sediments deposited in a saltmarsh environment.

Laszlo Lichtenstein, Richard Payne, WA

SOUTH GLOUCESTERSHIRE

Charfield
Land at Wotton Road, ST 72151 92461. An evaluation identified an undated ditch that potentially related to an orchard present on the site between the 1840s and 1960s. An undated pit was also identified.

Noel Boothroyd, CA

Emersons Green
Land south of Lyde Green, ST 367820 177105. A small Roman settlement and series of enclosures, dating to late 1st-early 2nd century and into 3rd century were excavated.

CA

Filton
Former Filton Airfield, ST 59400 80022 .An archaeological excavation and building recording of a Second World War gun emplacement and associated structure was undertaken. The gun emplacement is formed of a concrete base with central fixing bolts for a MK.1 40mm Bofors anti-aircraft gun. The concrete base retains evidence for stained concrete camouflage. The adjacent pill box/observation post is a simple cast concrete structure with two internal bays and gun embrasures.

Peter Cox, ACA

Rolls Royce East Works Site, ST 608 804 *(December 2015 to January 2019*. Historic building recording and archaeological monitoring and recording were undertaken following the demolition of factory buildings. The work principally comprised the recording of 59 Second World War air-raid shelters that were constructed for employees of the adjacent aircraft factory. The shelters were of a consistent and standardised type with entrance lobby, main chamber and vent. Surviving internal features included the remains of benches, light switches, fuse-boxes, cable ducting, curtain subdivision and portable toilet. Some limited graffiti was also recorded. Monitored groundworks comprised the excavation of 13 geotechnical test pits. None of the test pits exposed any finds, features or deposits that pre-dated the 20th century.

Andrew Passmore, ACA

Frenchay
UWE New Engineering Faculty, Frenchay Campus. ST 61903 78051. A watching brief identified no features or deposits of archaeological interest.

Charlotte Haines, CA

Pilning
Land at Northwick Road, Pilning. ST 55658 85434. A watching brief identified a levelling deposit associated with the demolition of 19th-century structures.

Noel Boothroyd, CA

Tortworth
Four Pillars Hotel, ST 69333 92522. Historic Building Recording of the Grade II* Listed Tortworth Court during alteration works recorded modern structures inserted after 1991 and an earlier fire damaged wall in the east range.

Peter Davenport, CA

Wickwar
Land South of Horwood Lane, ST 72646 87428. An evaluation identified a Roman ditch and a number of post-medieval pits and ditches.

Paolo Guarino, CA

REVIEW OF ARCHAEOLOGY 2020

Edited by Bruce Williams

Abbreviations

ACA	A C Archaeology
BBHC	Bristol Bath Heritage Consultancy
BWA	Bristol & West Archaeology
CA	Cotswold Archaeology
COHA	Context One Heritage and Archaeology
GF	GeoFlo
MHHC	Michael Heaton Heritage Consultancy
RPS	RPS Planning Consultancy
TVAS	Thames Valley Archaeological Services
WA	Wessex Archaeology
YCCCART	Yatton, Congresbury, Claverham and Cleeve Archaeological Research Group

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

BATH AND NORTH-EAST SOMERSET

Bath

Bath Cricket Club, North Parade Road, centred on ST 75228 64597. An archaeological watching brief recorded only made ground overlying natural alluvial deposits. The site was subject to extensive landscaping in the Victorian era, and any archaeological deposits could have been removed during construction of the nearby railway embankment.

Cheryl Green, COHA

1 Queen Square, ST 74830 65020. Monitoring of ground-works during internal and external alterations to this Grade I listed Georgian building revealed a drainage system contemporary with the house, cut through brick rubble made ground.

Roy Krakowicz, WA

No 31 St James Street, ST 374573 164859. An archaeological watching brief to the rear of no. 31 James Street for a single storey extension revealed only topsoil above natural clay. No features or finds of interest were encountered.

Kim Watkins

Charlcombe

Paddock Field, Lansdown. ST 372287 169924. A geophysical survey targeted the east side of the Scheduled ovate enclosure and to locate further features nearby. The bank of the enclosure was clearly identified, alongside a long linear feature running from the SW to NE corners of the field. This could be a Roman road or trackway of more recent date.

John Oswin, Janet Pryke, BCAS

Churchill

Land at Dinghurst Road, ST 344624 159732. A geophysical survey and evaluation trenching revealed only geological anomalies.

Tara Fairclough & Richard McConnell, COHA

Englishcombe

Butt Wick, ST 371216 163381. A small evaluation was undertaken at a field known as Butt Wick. A single trench was excavated across a bank and ditch earthwork which encloses the field on three sides, to obtain a date. No finds were made in the ditch or upcast, and only two fragments of 19th-20th century flower pot were recovered which had eroded from the top of the bank into the already silted ditch.

Simon Cox, BBHC

Hinton Charterhouse

Cricket Club, ST 377270 158292. An excavation was undertaken on the footings, rainwater storage tanks and utilities connections for a new pavilion. No archaeological finds or features were recorded.

Michael Heaton, MHHC

Keynsham

Milland House, Rock Road, ST 365386 168432. An archaeological watching brief was undertaken during the demolition and redevelopment of the Milland House site. No archaeological remains were identified during the watching brief.

Ray Holt, WA

Newton St Loe

Newton Bridge, Corston, ST 369908 165559. A pipeline watching brief recorded no features or finds of archaeological significance.

Cheryl Green, COAS

Globe Inn, Rising Main Replacement, northern end, ST 369868 165567*; southern end,* ST 370025 165328. An archaeological watching brief recorded no features or finds of archaeological significance.

Tara Fairclough, COHA

Odd Down
727 Wellsway, ST 73490 61797. A watching brief was undertaken during groundworks for a rear extension to a residential property immediately north of the West Wansdyke Scheduled Monument (NHLE 1007003). The Wansdyke is a linear bank marking a major boundary perhaps dating from the late Romano-British or Anglo-Saxon periods. The dyke now serves as a parish boundary and defines the southern edge of Bath's 20th-century suburbs. A substantial infilled ditch has previously been recorded north of the bank, and this was revealed during the groundworks, to survive below the gardens of houses constructed in the 1930s. The steep-sided ditch was 6.7m wide. Probing with an iron rod suggested that the ditch may have been 1.4m deep, with the base 2m below the present ground level. The ditch was filled with limestone rubble mixed with brown silt that was interpreted as deliberate backfill with rubble from the Wansdyke bank, and possibly from a second ploughed-out bank to the north. Further fills comprised orange brown silt clay and clay silt. No dating evidence was encountered.

Marek Lewcun, WA

Peasedown St John

Eckweek Lane, ST 370962 157998. Monitoring of the digging of test pits, a soakaway and stripping of topsoil recorded no features or finds of archaeological significance.

N Dawson, TVAS

Radstock
Land off Cobblers Way, Peter's Park, ST 67676 53807. An excavation uncovered the remains of a 19th-century twin-flue lime kiln built into the side of a backfilled limestone quarry.

Bruce Williams, BWA

Swainswick
Church of St Mary, Upper Swainswick, ST 375652 168414. Removal of some pews revealed four late 17th/ early 18th century ledger stones which were recorded and incorporated into new flooring. A heating pipe was lowered beneath this level but did not disturb any significant deposits. The font was dismantled for moving and found to incorporate modern cement, suggesting that it has been moved before.

Keith Faxon

West Harptree
Burledge Hillfort, ST 358349 158471. Geophysical survey by fluxgate gradiometer recorded curvilinear magnetic anomalies in the SW part of the hillfort that appeared to represent late prehistoric round houses. These were absent from the rest of the site which showed some evidence of land boundaries not related to the modern pattern.

Liz Caldwell, GF

BRISTOL

College Square, Canons Marsh, ST 58271 72646. Public realm works including pavement and seating improvements were monitored. The below-ground impact of the works was minimal.

Ray Holt and Simon Flaherty, WA

Knowle DGE Academy, ST 58647 69690. A mid-19th-century stone-lined well on the site of a former isolation hospital was recorded. The hospital was established in 1871 by the Board of Guardians of the Bedminster Poor Law Union to treat smallpox patients. It was a very small institution that quickly became used for female scarlet fever patients. The hospital was replaced by the larger Novers Hill Isolation Hospital in 1892, which was in turn replaced by a school.

Cai Mason, WA

St Mary's Hospital, Clifton, ST 57896 73104.A watching brief conducted in the grounds of the former hospital that lies opposite Brandon Hill found no archaeological remains earlier than the 19th century.

Bruce Williams, BWA

Paintworks (Phase IV), St Phillips, ST 60724–71795. A watching brief during groundworks revealed extensive, mixed made-ground deposits dating from the late 19th-early 20th century over alluvial clay.

Raymond Ducker, BWA

NORTH SOMERSET

Banwell
Winthill, ST 3981 5847. Excavation work carried out at this site in 1954–6 by Axbridge Archaeological and Caving Group had not been adequately reported at the time, so at the request of John Chapman, YCCCART copied all the site records, and produced a report on what had been done. Although the site is described on OS maps as 'Roman villa', no trace of the accoutrements expected of a villa were found. While there were some modest Roman buildings, the importance of the site is in the post-Roman burials at the site, cut through the remains of the Roman buildings. 51 burials or part of burials were recorded in the site notes, but unfortunately, most were reburied on site and are no longer available for study. This study forms part one of the WRAP (Winthill Recovery and Publication Project).

YCCCART

Land at Wrington Lane, ST 4455 6413. An archaeological trench evaluation was undertaken to provide sample coverage of the site, as well as to target a mound. The trench located over the prominent mound of natural limestone exposing a hollowed area likely to have been formed by 19th century piecemeal quarrying. The remaining trenches all produced negative results.

Vince Simmonds ACA

Congresbury, Nailsea, Tickenham
(ST 4275 6428), (ST 4404 6921), (ST 4411 7113). *Three probable decoy pools*. A combination of documentary study, historic mapping, lidar, and fieldwork investigation identified three sites that are suggested to have once been post-medieval decoy pools, although of perhaps less formal types than the grand and well-documented versions seen in the work of Payne-Gallwey (1886). In each case, however, they seem to have been overlooked.

YCCCART

Kenn
Kenn Moor, ST 430 689. As part of an on-going project hoping to characterise pre-enclosure activity and agriculture in the Northmarsh north of the Congresbury Yeo, the Kenn enclosure award of 1815 has been transcribed and analysed. Using this data and cross-referencing other material, it has proved possible to identify all the Old Austers (holdings with Common Rights) in the parish of Kenn. These sites are almost certainly of medieval origin, and so of enhanced archaeological potential. It was also possible to show beyond reasonable doubt that Manor Farm, on Kenn Moor Road, is not 17th century as its Listing implies, but early 19th century.

YCCCART

Kewstoke
Woodspring Priory, ST 3433 6614. Resistivity survey continued at Woodspring Priory. However, it was only possible to complete the survey of the Priory orchard uncompleted in 2012, and to survey the field south of the cloister, and part of the cloister before pandemic lockdown again curtailed work. An interim report was published, pending full report of the works in due course. Pandemic allowing, work is intended to continue in 2021.

YCCCART

ST34336614. A watching brief on wall repair and reconstruction was carried out on behalf of Landmark Trust. A wall in the cloister, usually assumed to be medieval in date, was shown to be of post-medieval date, built in two phases with very different mortars. The demolition and rebuild of the wall just inside the gatehouse, also proved it to be of post-medieval date, and several carved freestone fragments were found, including the worn remains of a Tudor fireplace. All fragments were returned to the wall after recording.

YCCCART

Long Ashton
58 Long Ashton Road, ST 54526 70406. Groundworks were monitored during a housing development. The 1842 tithe map depicts the site as occupied by a row of cottages and by Westleaze House. The foundations of the former Westleaze House were revealed to comprise faced-stone rubble bonded with lime mortar. An assemblage of historic glass bottles was also present within former garden soil.

Roy Krakowicz, WA

Puxton
St Saviour's parish church, ST 4066 6325. A thorough documentary and photographic survey was made of this former parish church, now in the care of the Churches Conservation Trust. There has probably been some structure here since the 10th century, when it would have served a community of that date in Church Field to the south. The church is also of note for its formerly housing the chain for surveying allotments in the Dolemoors nearby, until enclosure c1815.

YCCCART

Weston-super-Mare
Land off of Ebdon Road. ST 3632 6474. An archaeological trench evaluation provided mostly negative results, although a drainage channel close to the eastern boundary is likely to be related to a large drainage feature visible in the field. No finds were recovered from the excavated trenches or spoil heaps.

Vince Simmonds ACA

Lynchmead Farm, ST 3583 6430.An archaeological trench evaluation returned negative results with no archaeological features, deposits or finds uncovered in any of the trenches.

Paul Rainbird ACA

Yatton
Land at Arnold's Way, Phase 3, ST 4198 6685. An archaeological evaluation exposed one waste pit of late post-medieval date. A ditch contained abraded sherds of Romano-British pottery and this, along with an undated posthole, may be outlying features related to the known archaeology of this date previously exposed to the southwest of the current site.

Paul Rainbird ACA

North End. Burnt House Ground, ST 4221 6687. Gradiometry survey at Burnt House Ground showed no significant archaeology. The cartographic history of the site over the past 200 years is complex. Buried major gas pipelines at either end of the field posed significant problems.

YCCCART

SOUTH GLOUCESTERSHIRE

Almondsbury
Cattybrook Farm, ST 58496 83486. A watching brief revealed a field boundary ditch containing late Iron Age pottery.

Bruce Williams, BWA

Land opposite 15 Townsend Lane, ST 60020 84057.A handful of sherds of medieval pottery and a single sherd of Romano-British greyware were found in a topsoil strip for a new property; but no archaeological features or deposits were revealed.

Bruce Williams, BWA

Emersons Green
Land South of Lyde Green, ST 367820 177720. Small Roman settlement and a series of enclosures dating to late 1st-early 2nd centuryAD and into the 3rd centuryAD.
RPS/CA

Filton
Brabazon Hangar, former Filton Airfield, ST 5950 7984. An historic building record was prepared of the hangar which was constructed in 1947–9 for the assembly of the Brabazon airliner, and also included a workshop for the British Overseas Airways Corporation. The hangar is a massive three-bay structure with attached drawing offices and engine shop building. Surviving primary internal fittings included mezzanine floors, the heating system, and overhead cranes. The ancillary buildings included stores, manufacturing rooms, the operatives' cloakroom and service buildings.
Andrew Passmore ACA

Warmley
19 London Road, ST 67350 73455.Excavation of two trial trenches ahead of residential development revealed a ditch correlating with a boundary depicted on an 1840 tithe map.
Simon Flaherty, WA

Yate
Goose Green Way to Ladden Garden Village, southern end, ST 370560 183667*; northern end,* ST 370452 184429. An archaeological watching brief found no archaeology present.
Cheryl Green, COHA

OBITUARIES

ROBERT GEORGE JOHN WILLIAMS (BOB)
1933–2020

It is with sadness that we received news that Bob Williams has died, aged 87. He slipped out of life quietly in his sleep but sadly had been lost to dementia in recent years.

Bob Williams joined BAAS in 1979 – very early days – and along with his wife, Barbara (they had a joint membership) was for decades one of its most dedicated and active enthusiasts. He was tall, genial, and welcoming, a former Chief Detective Inspector who threw himself into learning about local archaeology and history and was a mine of information about Mendip and everything that went on there – caves included. None of us who went on his summer walks in that area will ever forget them; the variety, the careful preparation, his pleasure at showing us places and things we never suspected. He published locally, including in the BAAS journal. He was also a regular committee member, Secretary for a long time, always ready to help out when asked, a friend to everyone. He was such a lovely man.

Gundula Dory
2020

….a personal reminiscence by Colin Budge:

I first met Bob many years ago when I was beginning to develop an interest in all things historical. On two occasions he led the Chew Valley Local History Society on walks: 1) Norton Malreward to Maes Knoll and on to the deserted farm at Pickwick to view the site and the field system. The site had been excavated some years earlier and Bob had later carried out a 'walkover' survey recording field banks etc. 2) Chelwood Deer Park – to view the deserted Park farm site and boundaries which Bob had mapped. Both sites were written up in a very early 'Avon Notes'(?).

At a later date I joined him on further walks at an Iron Age site in West Harptree on the Mendip plateau and another deer park at Compton Martin. These were part of his ongoing links with the Harptrees and Compton Martin local history societies when they were researching the background of the Compton Martin Tudor Map and tracing it on the ground. (I was not actively engaged with this – too

Bob during one of his guided walks on the Mendips. Photograph possibly James Russell.

busy working!). He also had a good knowledge of Cameley church and contributed a chapter to Juliet Faith's book on 'The Knights Templar in Somerset'. This was taken from his detailed work on Mendip concerning Temple Hydon. His Mendip work is, of course, fully written up in the P.U.B.S.S. journals – available online.

I always thought of Bob as being in that long line of landscape archaeologists from Beresford, Hoskins to the present day. Above all he was most interesting and courteous to spend time with on a walk or chatting over a cup of tea.

….and another personal reminiscence by Jodie Lewis:

I first met Bob Williams in 1996 when I was studying for my Masters in Landscape Archaeology at the University of Bristol. All of my cohort were invited to give a short presentation to the Bristol and Avon Archaeological Society on their thesis topic, in my case the Bronze Age barrows of the Mendip Hills. This was my first presentation to a public audience and I remember being terrified. After the event, over the obligatory tea and biscuits, Bob introduced himself and made very kind and supportive comments on my work. This was the start of a friendship which was to last 25 years.

It quickly became apparent that this was a man with a huge knowledge of the archaeology of Somerset. As my Masters progressed to PhD study on the Neolithic of Mendip, Bob was there to offer insight, advice and support. Bob was a friend of the late Leslie Grinsell, the great barrow specialist, and regaled me with tales of their experiences and archaeological expeditions on Mendip. Bob was familiar too with many of the sites I was studying and accompanied me on field visits where he shared his valuable thoughts. There were also many happy visits to his home in Temple Cloud for refreshments and to pour over his flint collections, field notes and surveys.

Bob was an excellent scholar, who adopted a meticulous and critical approach. His interests were focused on prehistoric and Roman sites in Somerset, cave archaeology, caving societies and the work of local antiquarians, but he also studied deer parks and manorial perambulations. He published widely and promptly including in the Proceedings of the Somerset Archaeological and Natural History Society, the Proceedings of the University of Bristol Spelaeological Society, Notes and Queries for Somerset and Dorset, the Axbridge Archaeological Society Journal and of course Bristol and Avon Archaeology, where he also served on the committee.

It is difficult to single out any of his publications for special mention but his articles on the St Cuthbert's Roman mining settlement (Williams 1998) and the Roman roads in the region (Williams 1992) are exemplary and typify his systematic and comprehensive approach. Bob made a huge contribution to our knowledge of the archaeology and history of Somerset yet was never one to blow his own trumpet. He was a true landscape archaeologist, able to see the big picture but never forgot the small, crucial details of individual sites. Bob had a keen eye in the field and produced excellent surveys and drawings, as well as aerial transcriptions of archaeological sites. But he was just as happy in the archives working with manuscripts as in the field, as his study of the antiquarian John Strachey demonstrates (Williams 1987).

Though it has been a few years since I last saw Bob it is appropriate that our last meeting was when he attended a lecture I was giving to a local archaeological society. Though obviously older and slightly frailer, after the lecture he asked me a series of insightful questions that demonstrated his keen mind and ability to see straightaway what was important. Once again, he offered me his support and encouragement.

We have lost a man with extensive knowledge of the archaeology of Bristol and Somerset, a skilled researcher and a kind and selfless supporter of others. And some of us have lost a much-valued friend.

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JAMES RUSSELL
1953 – 2020
(A very personal reminiscence)

I first met James in 1998 in the crypt of St Matthew's Church in Cotham which was the meeting place for BAAS winter talks, held every two weeks. James had long been Treasurer but at the time he was also acting as Membership Secretary for Jenny Pennington who had just stood down. Such were his powers of persuasion (ably abetted by Bob Williams) that by the end of the evening I had promised to do membership –and so our long association began.

I was invited to his home to collect the membership files. It gradually emerged how exceptional this invitation was – only after he became seriously ill many years later and more dependent on the help and personal contact he had so shunned before did he again let me – or anyone – into the house. He had always lived there, an only child, losing his father in the 1970s and his mother in 1993 when he inherited the house but only camped in it, living on sandwiches, amongst increasing piles of books – his range of interests takes your breath away – and research notes. His all too familiar trousers were eventually 'lost' by Southmead Hospital (along with the key to St Matthews). If domestic appliances broke down he left them broken – they were not important. Nor was his salary. It was his mother who had suggested that he work in the Inland Revenue when he was floundering after obtaining his degree in Archaeology and Art. He stayed in HMRC for 40 years – he was proud of his long service medal – but never advanced beyond the lowest level of income and responsibility, energies from the beginning were reserved for his archaeological interests.

He met Leslie Grinsell, always his hero, through his studies in the 70s, and joined his newly formed Bristol and Avon Archaeological Group (later Society), invited to become its treasurer in 1979 and retiring from that only 2 years ago – almost 40 years again. His accounting was meticulous – a lost couple of pence would be an endless source of worry until found, and he kept an iron grip on expenditure. In addition, he got the Bulletin together, laboriously written out on his word processor, corrected by hand if necessary, on individual copies and mailed by him in ridiculously small envelopes – it saved money. He never had a computer at home – he spent too much time on them at work, but in recent years came to rely on his ipad for the information and programmes (his television had gone long before) from which he wrote his Bulletin articles. Until he became ill, he never missed a committee meeting. He was the mainstay of BAAS and its anchor. He put everything into it – it was his family.

His knowledge of local archaeology and history was second to none and he knew everyone in the local archaeological community – few however would know that

James Russell. Photograph courtesy of Paula. Gardiner.

he never took to the stone era of prehistory (the Romans got short shrift too) and his preferred period was post-medieval (with an especial interest in Georgian garden furniture) – because he knew so much about everything. He could be totally relied on to give a considered and impressive answer to any question, which was invaluable in answering queries from the general public – he shunned contact but was always ready to write. Not for nothing was he affectionately known as 'Mr BAAS'.

He published extensively on 'his' subjects: Bradley Stoke, Stoke Park, the parish of Clifton and much more – often in the journal of BAAS and with his own excellent drawings and maps. He gave talks to BAAS and other societies, beautifully researched and delivered with the driest of humour. A speciality was the Civil War. He introduced all the winter meetings of BAAS – every time. He gave

us a new quiz at the Christmas party each year prepared from his own photographs – no-one ever figured out all the answers. He led us on a thoroughly prepared summer urban walk annually – he said he had 6 walks which he regularly recycled, but there were certainly more than that, and not just the history and architecture of central Bristol either – the Kingsdown one included turtles and gallows, and the Stoke Leigh camp walk included a ruined medieval chapel.

He had no car and was dependent on lifts for BAAS's more distant summer trips, often with Jenny Pennington who had known his mother and was one of the few people he felt comfortable with. It took a long time to get to know James and often the best way was to ask him something practical – he was a walking encyclopedia on local public transport.

He broke his neck in 1998, slipping on a rotted stair carpet at home, and from that stemmed many of his subsequent medical problems, including kidney failure resulting in dialysis 3 days a week, and a fall in 2015 which injured his back and led on to the infection which took his life in March last year. He was only 66.

He could be shockingly insular but even in the darkest of times could escape into his favourite archaeological and historical subjects – discussing them brought him alive. We can't begin to think what he did for BAAS or where BAAS would have been without him. We owe him so much. And recently he mellowed and was just beginning to appreciate that having friends in his life was fun. It makes it all the more difficult to accept that we can no longer share it with him.

Gundula Dorey

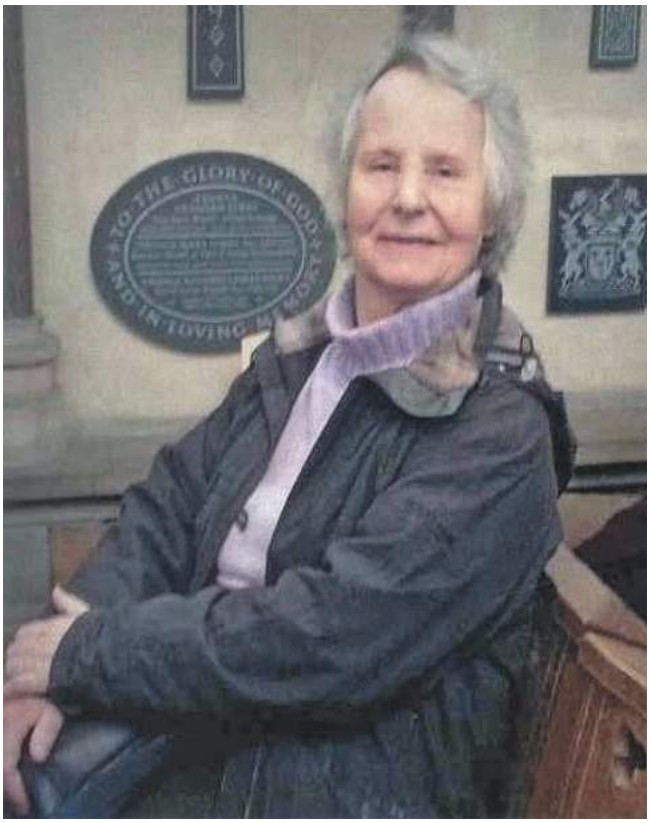
JENNY PATIENCE PENNINGTON
1936 – 2021

Jenny joined BAAS in 1984 when it was still in its heady pioneering days. She was rapidly persuaded to become Membership Secretary and it was she who devised the very simple and easy file membership sheets which we still use today alongside electronic methods. She decided in the late 90s that she wanted a change from being a member of the committee and elected instead to run the kitchen at meetings – so competently that nobody noticed. And meetings were every fortnight at the time. Without her so much would not have got done – she was always the first to run stalls at Open Days and Seminars and the Christmas Party. She 'retired' a year or two before we moved from St Matthew's to the Apostle Room, when turning out regularly on cold dark evenings became more of a chore and she was beginning to feel the onset of the dementia which took over the last years of her life.

She was one of the few who could get through to James Russell. It was in her car that he travelled on field trips and she ate lunch with him, still in the car, as joining the rest of us in the pub was not in his book. It was she who wheedled out of him that nothing in his house worked any longer and set about trying to change that – she organised the new washing machine and put various improvements in hand. She was one of his regular visitors in hospital despite already being in difficulties herself.

She was the most wonderful stalwart – every organisation needs its Jenny and she certainly did it for us. Always with such willingness and a bubbling undercurrent of humour. Her middle name was 'Patience' and it fits but she was much, much more. We are so happy and grateful to have known her.

Gundula Dorey
2021



Photograph by Gundula Dorey.

MIKE J BAKER
1962–2020

It is with great sadness that we must note the passing of longstanding BAAS Life member Mike Baker on 12 March 2020 at the age of 58.

Mike will be remembered as cutting a somewhat Bohemian figure with his long black hair, beard and scarf within the heritage and artist communities he associated with. Mike joined BAAS in 1978 and was also involved with the Society for Clay Pipe Research, Living Easton Heritage and Environmental Group, Barton Hill History Group, Bristol Radical History Group, various artists groups and the Long John Silver Trust among others.

Mike worked on various excavations around Bristol from the late 1970s onwards including Broad Quay with Les Good, Redcliffe Street and Bristol Bridge with Bruce Williams as well as many rescue sites (see below). Additionally, he worked on the 'rotunda' excavations at Stoke Park under the able directorship of James Russell in 1988.

Later on, Mike trained as a stonemason at Weymouth College and in 1992 he gained a degree in Heritage and Conservation Management at Bournemouth University.

His contribution to local archaeology should not be underestimated owing to the finds he made, including brass waste from Harford's Brass Mill, Baptist Mills (found at Conduit Place, St Paul's) and an almost complete clay tobacco pipe kiln tipping muffle from Temple Way (described by Dr Allan Peacey, Clay Pipe Kiln Archaeologist as "the best preserved example in the whole of the United Kingdom.")

My first real abiding memory of Mike was of his time as a member of the Whitefield Comprehensive School Model Railway Club in 1974 and 1975, run at that time under the very capable leadership of the school chemistry teacher, Mr. David Wheatley. I particularly remember him bringing a Triang-Hornby 00 scale model Class B12 4-6-0 steam locomotive to the club which he had painted in a bright copper green colour. These were obviously early portents of what would become lifelong interests in both railways and art.

Mike's interest in railways manifested itself in a large collection of photographs taken on trips around the UK rail network, including trips to the Crewe and Eastleigh works rail open days and further afield to Ghent in Belgium.

It was in 1981 on Bruce William's Bristol Bridge excavations that I worked with Mike on site where his mattocking, shovelling and trowelling skills were put to good use and this was followed by Bob Jones' Portwall Lane site in 1982. This included a short secondment digging out the Portwall ditch under the supervision of John Bryant.

Aside from his work with the Bristol City Museum archaeology unit, Mike also became involved with their 'Green Card' volunteer watching brief project, making observations on building sites which the archaeology unit didn't have the resources to watch themselves, in the days before PPG 16 planning guidance was introduced.

Mike's individual observations led to the discovery of some major archaeological sites around Bristol including clay tobacco pipe kiln waste at Pennywell Road, Great Ann Street, Conduit Place and Felix Road (Easton Colliery). He was also involved with other important rescue operations at Temple Way and Temple Back, helping to recover dumps of tin-glazed earthenware (Bristol Delft). Most recently, in early October 2019, Mike observed a scatter of clay pipe stems in a contractors spoil heap near 199 Newfoundland Road. Following these initial observations, it was decided to mount a small rescue excavation in the contractors' trench which had been dug alongside the pavement on their site. During the excavations, carried out by BAAS member Ian Beckey, a quantity of clay tobacco pipe kiln waste was

recovered at the base of the trench. The material consisted of clay tobacco pipe bowls, stems, fragments of pipe clay sheets and clinker together with fragments of pottery.

Away from archaeology Mike had a keen interest in sculpting, in particular his designs for elaborate wall plaques for the Living Easton Time Signs Trail, including one for W.G Grace on Stapleton Road, and other commissions including for the Fishponds workhouse at 100 Fishponds Road, Bob Hope (on the gates of St George's Park), Thomas Clarkson (on the wall of the Seven Stars PH in Thomas Street), and one for the 'Bristol Boys' bare knuckle boxers at the Hatchet PH in Frogmore Street. The plaque commemorating the 1963 Bristol Bus Boycott in Bristol Bus Station is another legacy of his versatile skills.

His interest in art extended into producing a large number of observational sketches of people he saw on his travels at rail and bus stations or at the seaside, among others. However, the sketches he drew at Charlotte Keel Health Centre and the Bristol Royal Infirmary are particularly poignant as by this stage Mike was already struggling with ill health.

All those who knew Mike will miss his cheerful disposition together with his passion and enthusiasm for heritage and archaeology.

Ian Beckey
2020

REGINALD GRAHAM JACKSON
1949–2020

Although Reg had been seriously ill for the last few years, it was still a shock to learn of his passing on Christmas Eve of 2020. Reginald Graham Jackson was born in Bristol to parents from Yorkshire. In his early youth, he took an early interest in archaeology and thanks to his parents was driven to see archaeological sites throughout the country. As a teenager he worked under the direction of Jim Constant on a Roman site at Sea Mills, Bristol. Later he helped at the Meare Lake Village near Glastonbury, Somerset. While working professionally in insurance in Bristol he spent holidays and weekends digging on sites at Westbury College, Bristol Castle and Greyfriars, Bristol, under the overall direction of Mike Ponsford at Bristol Museum. The work at Bristol Castle in 1971 and the discovery there of a dump of clay tobacco pipe waste, as well as pipes from other Bristol sites, led Reg to follow decades of research into the clay tobacco pipe industry in Bristol. In collaboration with Roger Price, this resulted in the publication in 1974 of a monograph entitled 'Bristol clay pipe makers: a study of makers and their marks'. Following further research with Roger Price and Philomena Jackson, his then wife, this was revised and enlarged in 1979 as a private publication. Reg was a founder member of the Society for Clay Pipe Research which now has an international membership. Following the Society's inception in 1983 he was responsible for the typing and production of the early Newsletters before taking over as editor between 1987 and 1991. Reg was also a prolific researcher, particularly in relation to the Bristol pipe industry, and contributed as many as 70 notes and articles to the Newsletter. spanning 37 years, from the very first issue right up to the two papers he published in the last Newsletter. At a national level, he also helped compile and edit the annual excavation reports in 'Post-Medieval Britain and Ireland' for *Post-Medieval Archaeology* during the 1990s.

Reg was one of a group of enthusiasts who regularly carried out 'rescue' archaeology at weekends in the centre of Bristol thoughout the 70s and meeting at the City Museum on Thursday evenings to process the finds. It is not surprising that he developed an interest in the study of

Reg in his garden in Cornwall (photograph by Reg Jackson).

pottery. He co-authored the paper detailing the first medieval waste pottery found in the city, discovered during a salvage excavation at St Peter's church (1973). His documentary research with Philomena and Roger Price led naturally to a parallel study of Bristol potteries and potters. This resulted in 1980 in the publication of 'Bristol Potters and Potteries, 1600–1800' which appeared as volume 12 of the Journal of Ceramic History by Stoke-on-Trent Museums. He later undertook considerable research on the 19th-century pottery industry in Bristol including that at Crew's Hole. In 1999 he was awarded an MLitt by the University of Bristol for his dissertation on the origin and development of the seventeenth-century tin-glazed earthenware industry in Brislington and Bristol. His continued interest is reflected in the magisterial website that he developed and kept up-dated until the time of his death https://www.bristolpottersandpotteries.org.uk/

Nor was Reg's research interests confined to the archaeology of Bristol, its clay pipe and delft pottery industry. He and Philomena played an active role in the archaeology of Monmouth in the 1970s-80s, working on rescue sites throughout the area in collaboration with Monmouth Archaeological Society. He led an excavation over a two-year period at Welsh Newton, revealing kiln and waste heaps of a country pottery which was the first of a series of excavations and publications of rural kiln sites around Monmouth by Reg and Philomena. For its work in Monmouth the society was awarded the Legal & General Silver Trowel for the greatest initiative in archaeology as well as the Pitt Rivers Award for the best project by independents.

Astonishingly Reg achieved all this whilst holding down a full-time job at the Prudential. However, a turning point for him came in the early 1990s when he turned his back on insurance to pursue a full-time professional career as a freelance archaeologist. Working chiefly for BaRAS in Bristol, he undertook fieldwork and wrote specialist reports on post-medieval ceramics and clay tobacco pipes from numerous Bristol sites, his skills being recognised by other archaeological units with whom he worked locally.

Reg undertook more archaeological excavations in Bristol than anybody else, totalling nine major investigations over a 12–year period. The list includes an excavation in 1994 at Tower Harratz, the easternmost, and largest, tower on the Portwall. This was the first of Reg's major fieldwork commissions for BaRAS and there followed an excavation in 1995 at St James's Priory, a Romano-British site at Inns Court, Knowle West in 1997 and more Roman stuff off Upper Maudlin Street in 1999, medieval and later remains at the Bath Street site of the former Courage Brewery in 2000/2001, an excavation off Union Street in 2000, separate 18th-century glassworks west and east of St Thomas Street in 2000 and 2006, as well as numerous site assessments. It is a tribute to Reg, but something of a rarity for Bristol, that he reported on all his fieldwork, leaving no backlog of unfinished fieldwork reports, but a legacy of several stand-alone monographs and numerous smaller fieldwork reports.

Reg eventually settled in West Cornwall in 2008 with new partner Frankie where together they ran a bed and breakfast establishment. Recently, he rekindled his interest in active archaeology, joining an Iron Age dig on the Lizard and pursuing documentary research on the potters and clay tobacco pipe makers of Devon and Cornwall.

Reg was a long-time member of BAARG/BAAS, serving as Membership Secretary in 1973, Vice Chair in 1988–89 and Chairman in 1990.

Reg combined a natural talent for archaeology with good interpretative skills and strong organisational strengths, completing work which he undertook with care and attention to detail. He is remembered as a quiet unassuming person with a wry sense of humour. He worked well and companionably with others but very much dedicated himself to the task in hand. He will be greatly missed.

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By some of his friends.
August 2021

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