OLD SARUM

Archaeological interventions in the West Suburbs, 2017-2019

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Abstract

Between 2017 and 2019 a program of archaeological evaluation was undertaken to characterise the medieval settlement in the western 'suburbs' of Old Sarum. In the identification of the original canon's closes, the work established an important, if not unique archaeological resource for the understanding of the English Secular Cathedral community at a critical phase in its development. Evidence for a flood plain settlement of at least Saxo-Norman date was also recovered along with house platforms of thirteenth to fourteenth century date. Taken together, the findings presented here offer an important contribution to what we know of Old Sarum and its hinterland at a time when it was one of the most important centres of government in England.

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Introduction

Archaeological excavations in the eastern suburbs of Old Sarum castle suggest a substantial medieval settlement that may have continued in a south-westerly direction along the line of the Portway (Stone and Charlton, 1935, Musty, 1958, Musty and Rahtz, 1964, Chandler, 2004) (Figure 1). This road closely follows the line of the Roman road from *Sorviodunum* to Badbury Rings, and crosses the river Avon at a place known as Kingsbridge Meadow[1] where a range of archaeological evidence suggests the likely site of the Romano-British settlement of Sorviodunum (Figure 1) (Margary, 1957, No. 45b, Mcmahon and Hawkes, 2000, Moffat, 2001, 2002, Sabin and Donaldson, 2009, James, 2010, Smith and Henry, 2020).

Figure 1: Location map showing areas of known settlement in the Roman and medieval periods, and the area identified in the west suburbs for analysis (© Google Satellite Imagery © 2023 CNES / Airbus, Getmapping plc, Infoterra Ltd & Blusesky, Maxar Technologies, Map data)

With the exception of a gas pipeline excavated in 1969 under rescue conditions (Algar, 1970), and an earthwork survey conducted by the Royal Commission on Ancient and Historical Monuments of England (RCAHME) in 1985, no archaeological work has been undertaken on the west side of Old

[1] Wiltshire and Swindon History Centre (WSHC), Stratford-sub-Castle Enclosure Award and Map, PR/Stratford-sub-Castle: St. Lawrence/1076/65; Stratford Tithe Award, PR/Stratford-sub-Castle: St. Lawrence/1076/66 and St Lawrence/2474/7.

Sarum in the area outside of the west gate along the course of what is known today as Phillips Lane.[2] Two sixth-seventh century burials exposed by the 1969 pipe trench have recently received publication (Eagles, Algar and Saunders, 2014) and the other archaeological features observed in those works, where they pass through the study area, are incorporated into the analysis here (Figures 5 and 6). The programme of investigation conducted between 2017 and 2019 involved targeted small-scale trial trenches, geophysical survey and retrogressive cartographic analysis. The programme of activities served the dual purpose of also engaging members of the local community, school parties and youth groups.

[2] The Historic England Archive, South Wiltshire Project, *Stratford-Sub-Castle Shrunken Medieval Village/Ink Survey and Report*, RCH01/126, Ref. Nos. 831992 and 922229.

The documentary source material and landscape survey

The scant number of historical sources for the topography of the immediate hinterland to the west of Old Sarum have been reviewed elsewhere (Crittal, 1962a: 63–65). The problem of confidently placing an indeterminate number of bridges, mills, churches and land-uses recorded from the fourteenth century is exacerbated by the toponomy in our earliest reliable cartographic evidence (from 1799 onwards) having a ring of modernity about it (e.g. Phillip's Croft, Harvey's Little Croft, Blundell's Garden, Jersey's, etc.). Of note is the reference in a lease of 1358 to a dovecot in 'Nyweton Westyate', listed as an appurtenance in Stratford and an 'aldermanry of Newton' mentioned in a will of 1361 (Anon., 1834: 63, Anon., 1909: 649). Both clearly suggest a 'new' township in what must presumably be an area marked by its situation outside of the west gate of the castle. Of further interest is an estate called *Stratford Decani* appearing in documents dating to the early thirteenth century and a place likely centred on the present-day site of Dean's Farm and Manor, immediately alongside Stratford Bridge and the crossing of the Avon (Figure 2) (Jones, 1883a: 259, 1883b: 49–50, Macray and Jones, 1891: 167–168, cf. Stenton, Mawer and Gover, 1939: 372). Stratford Dean's continued appearance in later sources suggests a settlement contemporary with Newton Westgate from the fourteenth century onwards.

Bishop Osmund's 1091 foundation charter for the cathedral at Old Sarum provides a useful starting point for what might be expected within the immediate vicinity of the west gate of the fort. Amongst the endowments for the new *ecclesiam de Sarum*, with its tithes and other appendages, are two and a half hides in the same *villa*, and six and a half hides in Stratford. Alongside this, a provision is made for the 'houses and gardens' of the canons, which we are told lie before the gate of the castle of Sarum, 'on either side of the road' (Jones, 1883a: 198).[3] With the move of the cathedral church to its present site in the city of Salisbury, the prebend of Old Sarum was apparently 'dissolved' in 1225 (Crittal, 1962b: 200). The tenants and their tenements, the *mansis in civitate*, the meadows and land shares pertaining to them, appear to come into the possession of

[3] '*. . . ecclesiam de Sarum cum decimis et ceteris ibidem appendicitis, et duas hidas et dimid. in eadem villa, et sex hidas et dimid. in Stratford, et ante portam castelli Sarum terram ex utraque parte viæ in ortorum domorumque canonicorum necessitate*'

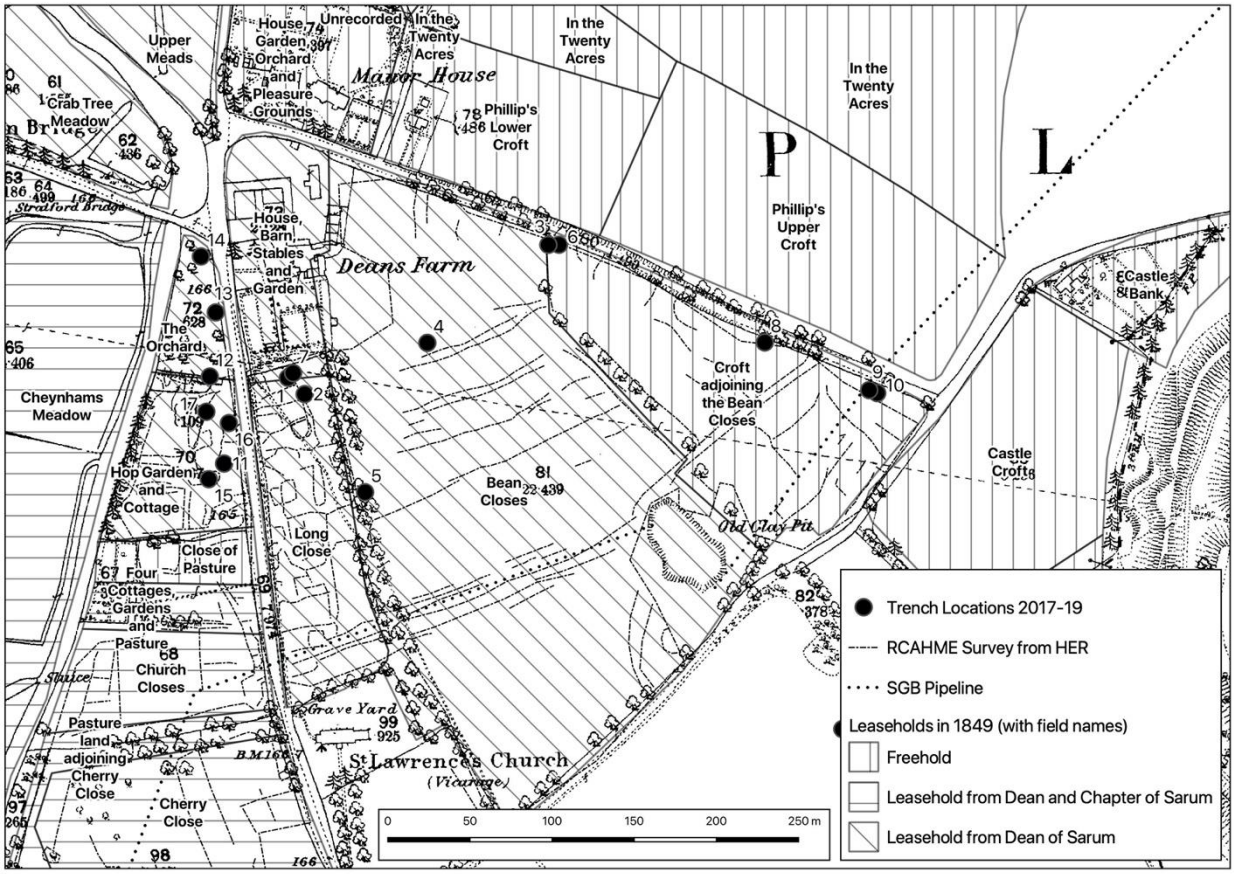

Figure 2: The Study Area, showing location of trenches and field names assigned in the 1841 Tithe Award. (© 1:10 560 County Series 1st Edition, Scale 1:10560, EDINA Historic Digimap Service)

the Dean of Sarum in an arrangement activated by the death of the incumbent Hugo de Templo in 1226 (Jones, 1883a: 259, Macray and Jones, 1891: 167–168, CXLVII).

It is made explicit in this latter text that all of the houses inhabited by the canons, along with the granaries/barns and enclosure (*arca*), are *excepted* in this transfer (Jones, 1883b: 49–50).[4] This arrangement, where the land upon which the canons' residences and appurtenances is retained by whatever is set to continue on the cathedral site, appears to be fossilised in a map of lease holding drawn up by the Church Commission in 1849 (Figure 2). Here, the land immediately outside the west gate, and alongside both sides of the upper end of Phillips Lane is a freehold tenancy whilst Dean's Farm and manor, the meadow lands alongside the river, and the adjacent closes are held under lease from the Dean and Dean and Chapter of Sarum.[5] This episode from the early thirteenth century may, therefore, represent the establishment of the 'new' township at the west gate first historically attested in 1358.

[4] '*Exceptis omnibus domibus quas inhabitabat prædictus Canonicus, com horreis et arca in qua sitæ sunt prædictæ domus et horrea*'

[5] WSHC, Stratford-sub-Castle, Map showing lease hold under the Dean of Sarum, Dean and Chapter, the Prebendary of Stratford, the Sub-Chanter, and Freehold, CC/Map/48.

Historic cartography

Cartographic evidence for the western environs of Old Sarum begins with a series of deeds, schedules and an Enclosure award, all with attendant maps dating from 1793 to 1844.[6] Much of the topographical detail recorded in these is replicated in the first edition of the Ordnance Survey's 1:2500 County Series, published in 1881 (Figure 2, with earlier information annotated), and it appears likely that phases of eighteenth-century landscaping and post-war agriculture have done much to mask the medieval character of this landscape. The situation is further exacerbated by the various holdings amongst the chapter lands having been by the late eighteenth century under single tenure for so long. For the Stratford-sub-Castle leasehold surveyors in 1793, the boundaries in all of these areas were 'in a great degree unknown', making the systematic tracing of the earlier historic topography, 'more than ordinarily unreliable' (Crittal, 1962b, footnote 296).

LiDAR, earthwork and geophysical survey

The 0.5m LiDAR data confirms the arrangement of earthworks surveyed by the RCAHME (Figure 3).[7] In Long Close (Figure 2) the survey identified a series of platforms along with agricultural strips, the 'Bean Closes' (where Bean is considered a scribal error for Dean), running in an east-north-east direction towards 'The 'Croft adjoining the Bean Closes' (hereon referred to as 'The Croft'). This croft is very clearly demarcated by an upstanding earthwork running around its southern edge. Within it, a terrace some twenty metres wide runs parallel to and immediately alongside Phillips Lane. To the north of the lane, a rectilinear enclosure known as Phillip's Upper Croft is clearly in evidence in the LiDAR data and a series of cropmarks observed in aerial photos from the 1920s onwards indicate subdividing plots laid out perpendicular to the lane. Other than these feint traces there is little information in the aerial photography and satellite imagery beyond what is recorded in the cartographic evidence.

The area has been subjected to extensive geophysical survey, the results of which have been published in detail elsewhere (Strutt et al., 2015, Strutt, 2018, Strutt and Barker, 2022).[8]

[6] WSHC, Nine deeds and a schedule with other deeds endorsed, relating to all the manors, burgage lands and other property in Stratford-sub-Castle: CC/Chapter/14/1-10; Stratford Tithe Award, PR/Stratford-sub-Castle: St. Lawrence/1076/66 and St Lawrence/2474/7; Stratford-sub-Castle Enclosure Award and Map, PR/Stratford-sub-Castle: St. Lawrence/1076/65.

[7] The Historic England Archive, South Wiltshire Project, *Stratford-Sub-Castle Shrunken Medieval Village/Ink Survey*, RCH01/126, Ref. No. 831992.

[8] Available at https://doi.org/10.5284/1047136 and https://doi.org/10.5284/1047137.

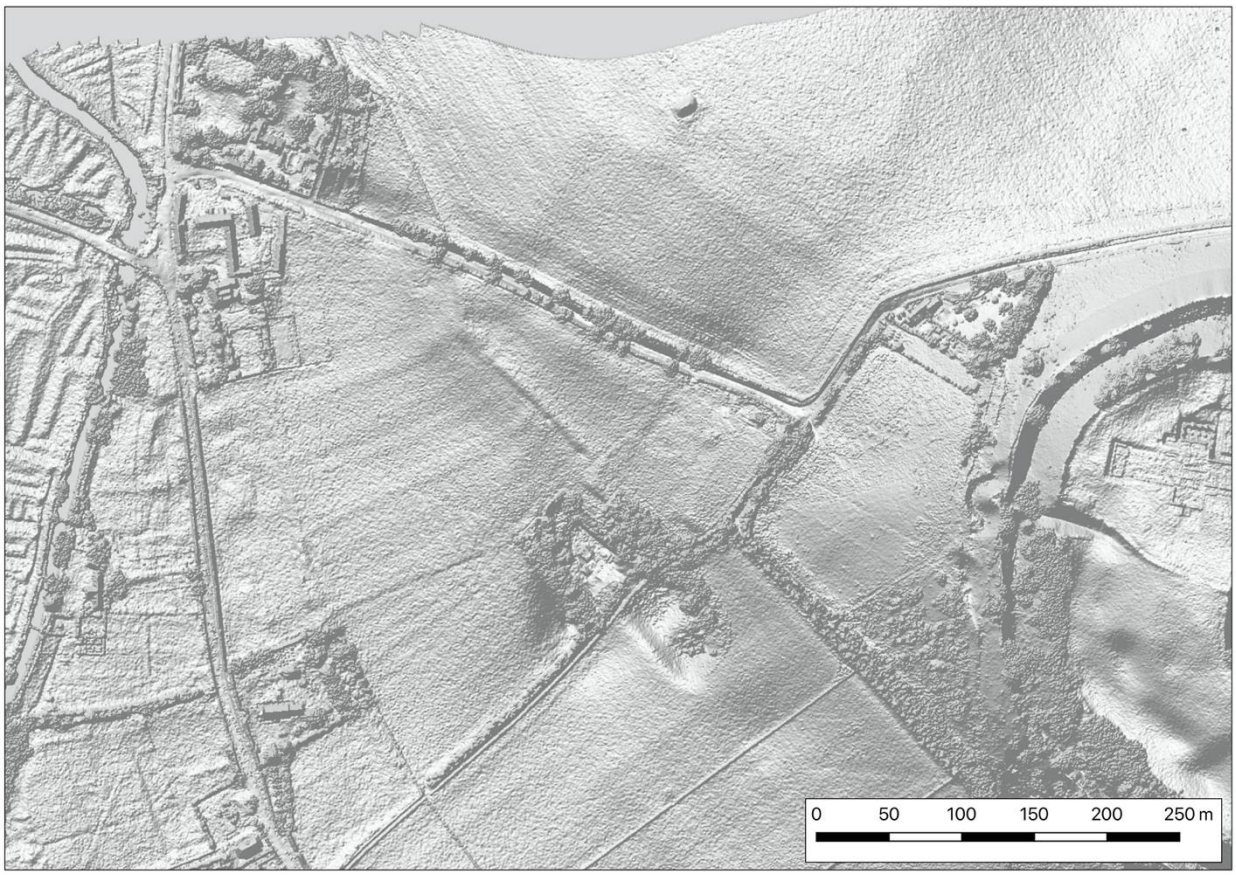

Figure 3: Digital Surface Model, LiDAR at 0.5m resolution (© Open Government Licence v3.0).

Archaeological Trenches

1969 Southern Gas Board Pipe Trench

In the summer of 1969, the Southern Gas Board cut a pipe trench through the immediate hinterland of Old Sarum and installed a pumping station within the 'Old Clay Pit' (Figure 2). This work was watched by members of the Salisbury Museum Archaeological Research Group and a valuable record of the archaeological resource was made (Algar, 1970). In the pipe trench that ran across the top of St Lawrence's church Ditch 0 was observed aligned towards the crossing of the Avon, was some 1.5m deep, lined at its base with large flints, contained frags of charcoal and bone but yielded neither medieval nor Romano-British pottery (Figure 4).[9] With the exception of a large pit (or possible well) yielding charcoal and small fragments of iron, some 20m further along the pipe, no other features were observed before the gas pumping station.

[9] The ditch is approximately on the same line as, and to the west of, the footpath from Parsonage Farm to Dean's Farm, D. J. Algar, pers. comm. 2021.

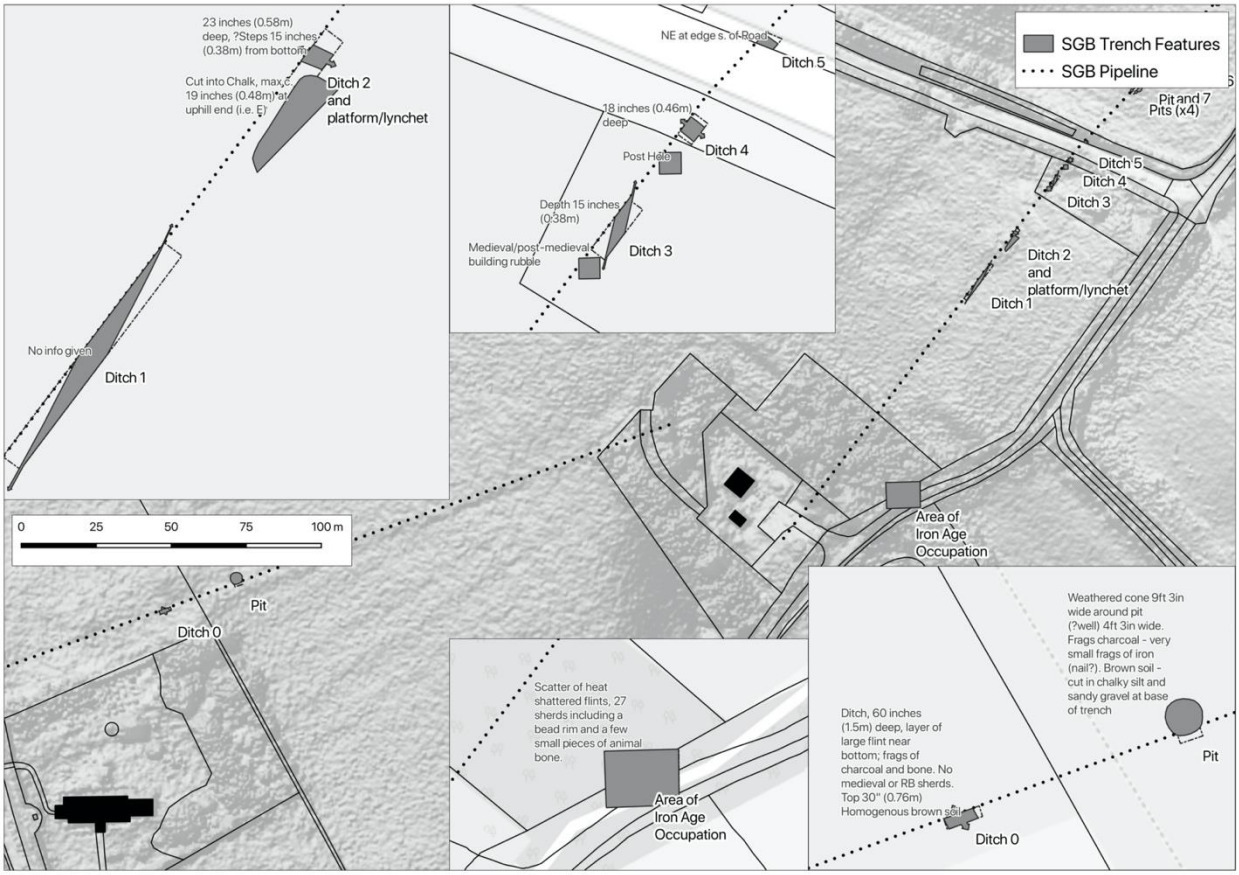

Figure 4: Southern Gas Board pipeline 1969, section west-south-west of Phillip's Lane. (Contains OS data © Crown copyright [VectorMap District] [2013]).

Across The Croft, Ditch 1 was observed running with the line of the trench and broadly perpendicular to Phillips Lane. This is likely to represent the eastern boundary of a close surviving into the late-eighteenth century enclosure map (A, Figure 10). A parallel ditch observed in the geophysical survey looks to represents the close's western bounds. Ditch 2, running roughly at right angles to Ditch 1 may relate to a platform cut into the chalk described as 0.6m deep in the uphill side of the trench and 7.6m wide. Ditch 3 may also run perpendicular to Phillips Lane, whilst Ditches 4 and 5, appear to be roadside.

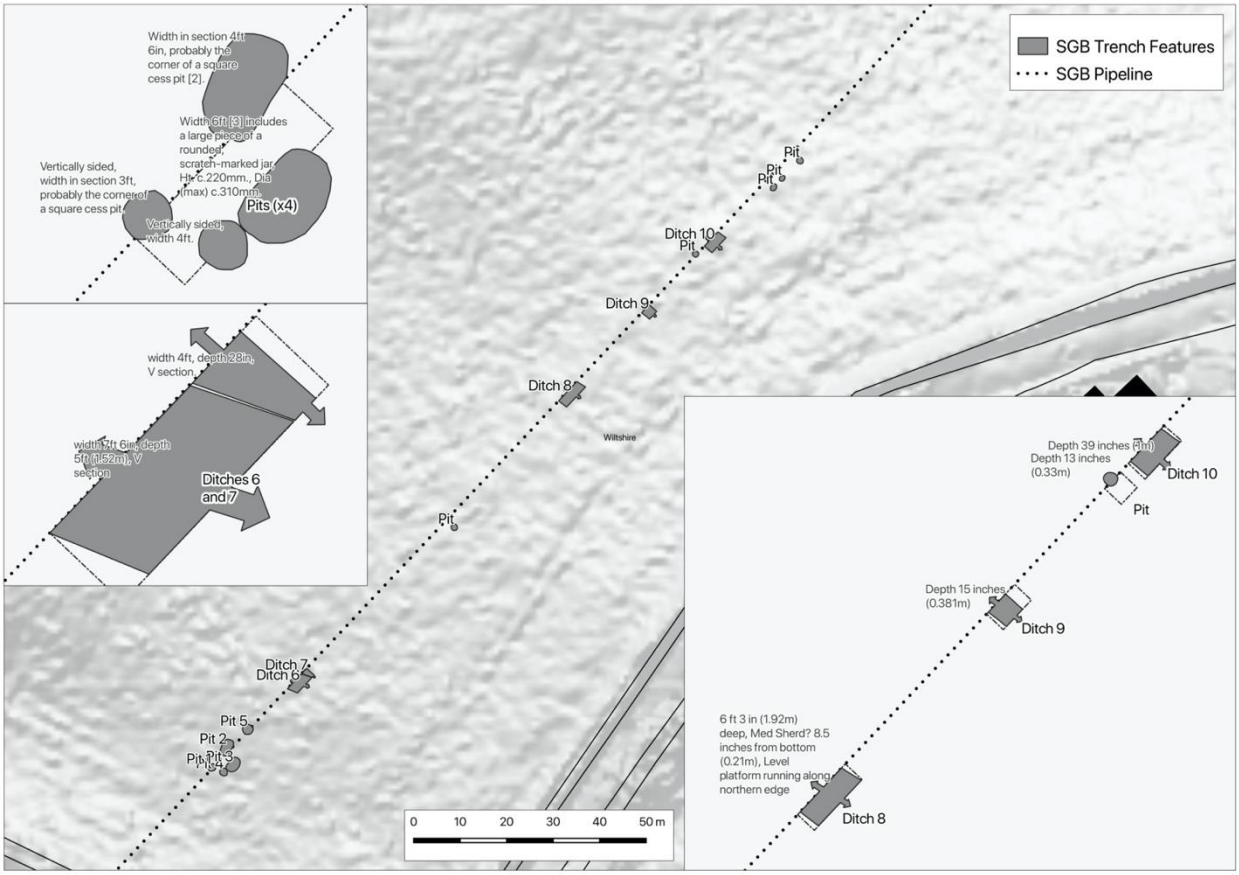

Figure 5: Southern Gas Board pipeline 1969, section north-east of Phillip's Lane. (Contains OS data © Crown copyright [VectorMap District] [2013]).

Both the geophysical survey and aerial photographs of Phillip's Upper Croft depict a series of ditches running perpendicular to Phillips Lane, bounded to the north by a ditch running at right angles (Strutt and Barker, 2022: 33, Fig. 23). This would appear to be Ditch 8, a substantial ditch nearly 2m deep and yielding medieval pottery close to its base (Figure 5). Outside of this, parallel ditches observed in the geophysical survey potentially manifest themselves as Ditch 9. Ditch 10 appears to relate to another SE-NW aligned linear but may also relate to a curved linear feature, appearing in both the LiDAR and late eighteenth-century maps, curving out from the west gate and heading in a north easterly direction (C, Figure 10). Ditch 6, a large feature some 1.5m deep, appearing to run parallel to Phillips Lane, cuts the smaller Ditch 7 which appears to run in a north-westerly direction. A group of pits, the depths of which were all greater than the trench, were observed between Ditch 6 and Phillips Lane. Their close grouping, the suggestion in some cases of a square plan form, and vertical sides in at least two cases, along with a large piece of rounded 'scratch-marked' (i.e. Wessex coarseware) jar recovered from one, suggests an area of midden pits (Figure 5, with plans inferred). There are three pits to the west of Ditch 10 outside of the enclosure that are broadly comparable in size and may represent grave cuttings given their proximity to the

sixth and seventh-century burials recovered a little further to the west (Eagles, Algar and Saunders, 2014). In notes accompanying the field records the pits and ditches in the area outside the west gate are considered to be of twelfth and thirteenth century date but a record is also made of a potential Iron Age site represented by a sherd scatter (Figure 4). There was no trace of the proposed Roman Road from the Mendips and if such a road existed at this time, it would appear to lie beneath the present Phillips Lane.

The 2016-2019 Trial Trenches

The Croft (adjoining the Bean Closes), Trenches 3, 6, 8, 9 and 10.

Tr3 (7 x 1m) sought to establish the character of the bank retaining the Croft on its western edge (Figures 2, 3, 7). Here, a terracing event (304) overlies what may have been a natural bank of sterile silty loam (306). Internally, a ditch (or pit) [316] appeared to cut this bank (Figure 6). [316] had been backfilled ((309), (310) and (315)) before being cut by [314]. The upper fills of this latter feature contained abundant charcoal, scorched greensand stone, frequent bone, large fragments of freshly broken cooking pots and a near complete jug (Figure 15). Inside the enclosure a covering of plough soil (302) contained abundant heavily abraded sherds of medieval pottery. Externally, the plough soil (303) was largely sterile of archaeological finds suggesting that this physical boundary, re-fashioned later (322) with potential upcast from external ditches (318, 320), served to prevent the overspill of archaeological material into the Bean Closes below. Plough soil (302) was picked up in Tr6 (2 x 2m) (as 602). A stiff silty sub-soil loam (603) here was the same as (306) and no other discrete features were observed.

Wessex coarsewares predominated in Tr3 and Tr6 although the absence of other Saxo-Norman wares suggests that these features are more likely to be thirteenth-century or later, supported by the presence of Laverstock finewares (13% of the trench total). A thirteenth-century date is suggested by the recovery of sherds of Wessex coarseware jars of this date found on the surface of bank/terrace (306), one of the earliest deposits in the sequence, and in the secondary fills of ditch [314] (305, 307). The upper fill (305, 89 sherds) contained larger sherds with a mean sherd weight of 24g, suggesting a primary refuse and along with the large fragments of scorched sandstone and flint nodules, and frequent charcoal flecking, the impression given was one of a phase of demolition and site clearance in the early thirteenth century.

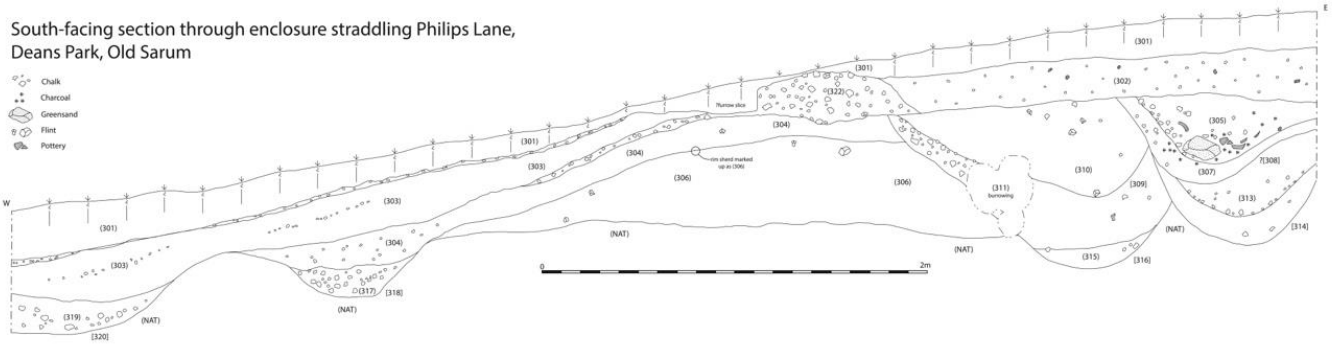

Figure 6: South-facing section through Tr3

Tr8 (2 x 7m) was located on a platform exhibiting anomalies suggesting pits and potential structures in the geophysical survey (Strutt, 2018: 25, Fig. 17). The overall depth at which the natural chalk was met suggested relatively heavy truncation by ploughing and an area of raised natural chalk (at a depth of 210mm), defined by what looked like a cut edge, suggested the fashioning of the chalk to create a platform or, perhaps, the robbing of structural materials. In the north east corner of the trench a substantial midden pit [804], squarish in plan, was excavated to a depth of 1.9m. It appeared to have had vertical sides but large voids within a clean slumped chalk lining suggests that the sides had weathered and collapsed because of the decomposition of organic matter in the lower part of the pit. Several layers of plough soil (803, 832) appear to have slumped into its top, but the sealed deposits beneath (837, 846) yielded large freshly broken sherds of pottery suggesting primary waste. Environmental samples were taken from both layers.

Elsewhere in the trench at least eleven other cut features were recovered (Figure 7). A large pit (812) with sloping sides to a depth of around 1.5m was excavated in the south-west quarter of the trench, yielding largely chalk-rich deposits. Immediately to the north of this was a similar pit (810) in plan, slope and fill, running to a depth of around 0.7m. Two shallow cut features were in plan form squarish with rounded corners (808, 818), and a series of post-holes ([806], [820], [824], [840], [847] and [849]) was recovered throughout the trench but in no obvious pattern. Features [816] and [822] contained compacted chalk fills and, devoid of finds, may represent earlier activity on the site. The south east corner of the trench was extended to examine what was thought to be another

midden pit (828). At 0.8m deep, this pit was similar in depth to [810] but had a dark organic fill in its base. To its immediate south was a gulley-like feature running east-west [842].

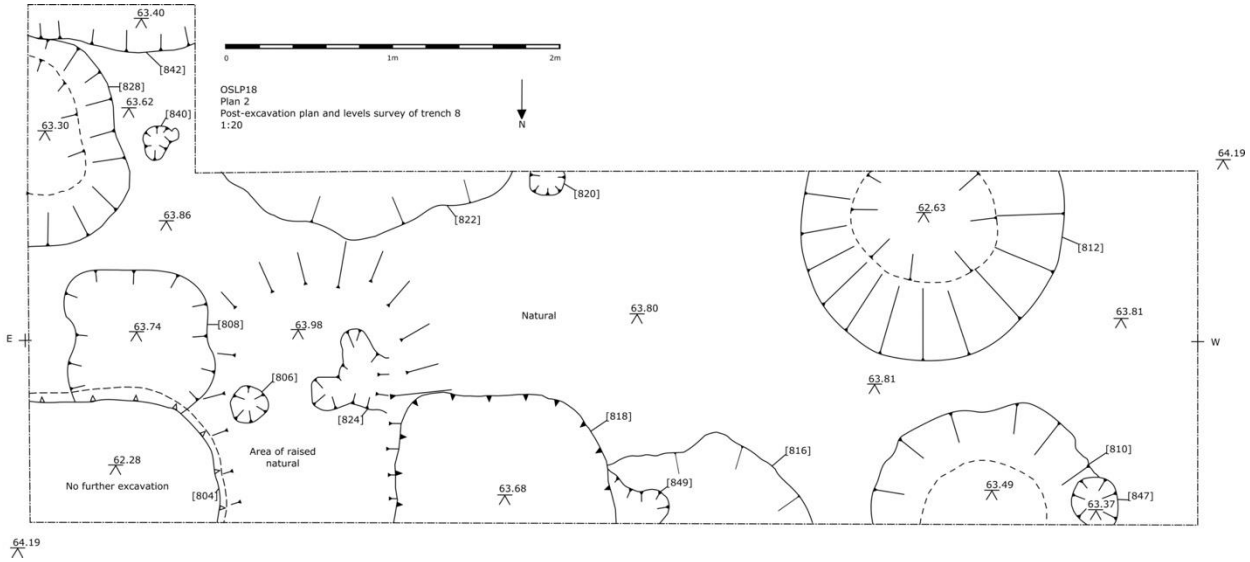

Figure 7: Post-excavation plan of Tr8

In the Tr8 assemblage, Saxo-Norman wares make up at least 10%, consisting overwhelmingly of Crockerton-type wares (i.e. twelfth- or early thirteenth-century). Wessex coarsewares include twelfth-century or earlier tripod pitchers and Laverstock finewares are well in evidence (14% of the trench total). The date range for the stratified pit groups appears to be relatively consistent ([804], lower fills (837) and (846)) and suggest a twelfth-century date extending into the thirteenth.

A further large refuse pit [1002] with a diameter of 1.5m was recovered in Tr10 (8 x 1m), alongside three other irregular shallow pit-like features [1006], [1008] and [1010]. Like [804], pit [1002] was squarish in plan form, not fully excavated and the high chalk content in some of the fills suggested the collapse of weathered chalk sides. Environmental samples were taken from the lower fills [1012] and [1013]. There were no archaeological features in Tr9. The sequence for pit [1002] in Tr10 appears similar to that for pit [804] in Tr8 with the lowest excavated fill (1013) producing Crockerton-type and Wessex coarsewares and the upper fills producing Laverstock finewares.

Long Close and Bean Closes, Trenches 1, 2, 4, 5 and 7

The underlying geology in the Long Close trenches was of sorted and variable river terrace gravel, the overlying plough soil and colluvium of which was between 0.3 to 0.4m deep. Tr1 (4 x 1m) was

located to examine an E-W aligned ditch observed in the geophysical survey and the recovery of a sealed gulley [113] in this trench (yielding a sherd of Michelmersh-type ware) prompted the location of Tr7 (Figure 8) in the following season. A similar sequence was observed in both trenches. Medieval archaeological layers were encountered at between 0.3 and 0.4m in both trenches (109), (110), (707) and (708). The E-W aligned ditch [108] and [724] cut these deposits and the Crockerton-type wares recovered from Long Close all occurred in the topsoil, sub-soil and the fills (105) and (709) of the ditch, including in the lower fill (716) of [724]. Beneath this feature in Tr1, two post-holes [115] and [117] were cut into the natural gravel beneath a level (109) yielding a sherd of mixed grit ware with a simple everted rim of Saxon-Norman type.

In the eastern part of Tr7, the E-W aligned ditch [724] cut across several SSE-NNW aligned broadly parallel deposits (717 = 721), (718 = 720) and (719 = 725), all comprised of between 40-50% of flint and stone cobbles, with none yielding any pottery. In the western half of the trench, a series of potential post-hole features [711], [713] and [715] cut into layer (708) and may very well have been associated with an underlying irregular feature [723] (722) that yielded exclusively seven sherds of chalk-tempered pottery of which at least four conjoined to suggest potentially two Saxo-Norman jar-type vessels. Tr2 (4 x 1m) was located in the vicinity of Tr1 and sought to examine a ditch observed in the geophysical survey running parallel to and some 15m to the south of the above-mentioned E-W aligned ditch. No pottery was recovered from the ditch fill [203], but it cut a layer that yielded sherds of Wessex coarseware.

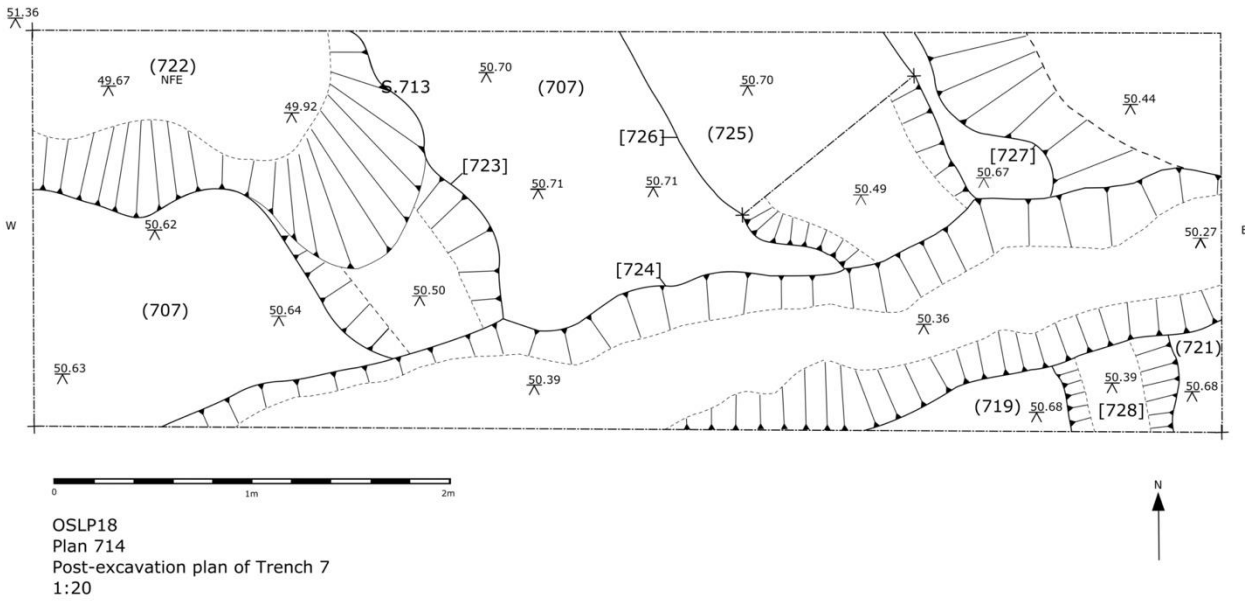

Figure 8: Post-excavation plan of Tr7

This area produced the highest volumes of Saxo-Norman wares (22%). The earliest feature in Tr1, ditch [113], produced a single sherd of Michelmersh ware and the layers sealing this feature (109), overlain by (107), contained chalk-, flint-tempered and mixed-grit wares, Crockerton-type wares and Wessex coarsewares, all of which may be no later than the twelfth century. The basal layer in ditch [724] (fill 716) also contained only Wessex coarseware and calcareous ware but the overlying ditch fill (709) yielded Laverstock finewares and the uniformly low mean sherd weight for both of these layers suggests probably secondary rather than primary refuse, indicating a thirteenth century or later date for this context group.

Tr4 (5 x 1m) examined a large and very clearly defined geophysical anomaly about 5m wide and some 170m long running diagonally across the Bean Closes (Strutt, 2018: 22–23, Fig. 15). This was excavated to a depth of 1.2m with the surface fill yielding frags of residual Romano-British and medieval pottery, and upper fills (401) and (402) fragments of glass, slate, iron, ceramic building material and pot, all thought to derive from episodes of ploughing and hill-wash. Beneath, a flinty and chalky deposit (403) devoid of any finds extended to the base of the trench and the interface between this and a weathered natural (404) may have represented a V-shaped profile. A large prehistoric structure, perhaps a ditch or hollow way is proposed and further examination of this feature is, at the time of writing, currently underway. Located over the boundary between the Bean Closes and Long Close, Tr5 (4 x 1m) yielded successive layers of heavily compacted stone-rich deposits, confirming a purpose-built road surface observed in the LiDAR data, and shows as a double row tree line avenue between the church and Stratford Dean Manor House in the first edition County Series OS (1881).[10]

The Orchard and Hop Garden, Trenches 11 to 17

Trs 11, 15, 16 and 17 were all located over raised platforms and whilst Tr11, Tr15 and Tr16 produced evidence of ephemeral medieval structures, Tr17 exposed only a dump of modern brick and tile sitting on a buried soil. Trs 11 and 15 were both located across a sub-rectangular platform some 15 x 5m. Tr16 was placed across the bank of another platform of similar height but apparently truncated by the paddock edge. Tr11 (4 x 1 x 2m) took the form of a T-shape designed to pick up the corner of the platform surface as well as the profile. The platform itself was

[10] wilt-su1332-1, Ordnance Survey First Edition 1:2500 County series (1881), Updated: 30 November 2010, Historic, Using: EDINA Historic Digimap Service, <https://digimap.edina.ac.uk>, Downloaded: 2021-01-02 19:55:55.905

comprised of a stiff compacted clayey loam with gravel inclusions (1104), sitting on a hard compacted gravel surface (1105), likely to be a redeposited natural aggregate. The top surface of the platform may have been comprised of a flinty gravel but disturbance from periodic ploughing made it difficult to discern an interface (1103) between the platform proper and the overlying sub-soil. The shallow impression of a post-hole was observed at the corner of the platform and another was identified in the main slot at a distance of 2.2m away. A lens of powdery chalk-like material (1102) some 0.7m wide and 30mm deep was observed running through the trench on the upper part of the platform bank and was thought to represent the remains of a decayed external wall plaster. Underlying this chalk-like spread, observed in the section, was a thin layer of fine dark loam, potentially representing a surviving surface to the bank. At the base of the platform slope, the natural gravel was exposed lying beneath a bank deposit (1104) that contained very much more flinty gravel within a compacted clay matrix. Tr15 (2 x 1m) was placed near the centre of the platform and came down through a disturbed gravelly plough soil onto the bank proper, a compacted clay matrix (1503), which in turn gave way to an underlying sterile compacted clayey loam surface (1504).

The lens of powdery chalk-like material observed in Tr11 (1102) was observed (as 1602) behaving in the same manner in relation to the upper surface of the platform bank in Tr16 (3 x 1m), defining the edge of the platform. The trench was extended south (x 1m) to follow the line of this deposit which appeared to be more intact than the one in Tr11 and comprised of larger inclusions of chalky mortar/plaster. Its better survival here may be due to its proximity to a sharp corner in the field edge, affording it some protection against cultivation. Again, as in Tr11, the main body of the bank was comprised of a clay-rich deposit (1604), although here it had a greater number of flint gravel inclusions, sitting on a natural compacted flint gravel.

Four sherds from the lowest layer of the platform observed in Tr11 and Tr15 (1504) included two of thirteenth-century or later Wessex coarseware. In Tr16 the underlying layer (1602) contained thirteenth-century or later wares. Post-medieval sherds throughout this area were confined to the topsoil, suggesting that both platforms have their origins beginning in the thirteenth century.

Tr12 (2 x 8m) was placed over the footprint of a cottage appearing as early as the Tithe Award map and still extant in the first decade of the twentieth century (OS 25 Inch, Wilts. Sheet LXVI.7 Revised: 1900, Published 1901). This exercise was undertaken for the engagement of local school, volunteer

and youth groups. Trs 13 and 14 were located in the paddock to the north of this cottage. Tr14 was located in close proximity to the road where it meets Stratford Bridge. Beneath the silty sub-soil (1402), layers containing a number of amorphous fragments of ceramic building material were successively comprised of; chalk (1403), flint nodules (1404) and chalk (1405). These were between 50mm and 100mm in depth and were interpreted as successive road, or causeway, surfaces overlying a buried damp dark brown silty loam (1406) containing fragments of abraded medieval pottery.

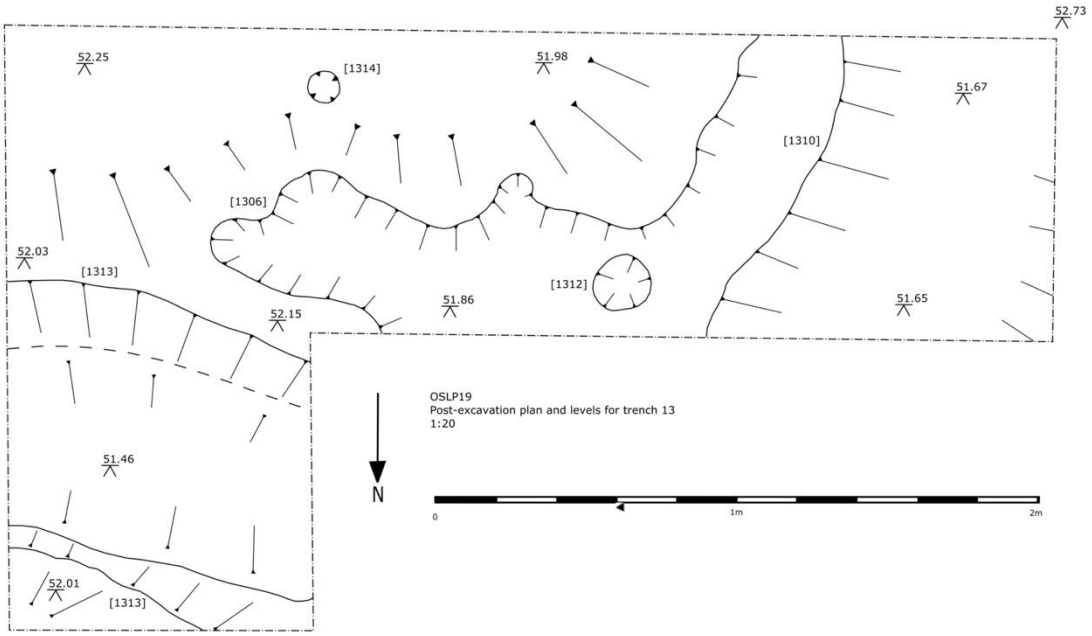

Figure 9: Post-excavation plan of Tr13

Tr13 (4 x 1m x 1m) bore similarities with Tr1 and Tr7 in terms of depth and the composition of deposits (Figure 9). An overburden of deep horticultural soil (1301) sealed two successive layers of a dark brown silty clay (1302, 1303) which in turn overlay a complex arrangement of features and fills. Running through the NE annex of the trench was a ditch-like feature [1313] aligned ESW-WNW, containing a fill (1308) with a rich organic layer at its base. In the main trench, from the western end, an irregular depression, seemingly comprised of two large cut features [1306, 1310] contained organic rich deposits (1304, 1307), both yielding relatively large sherds of freshly broken Wessex coarseware vessels. Beneath (1307) in [1310] lay a basal layer of organic-rich fill (1309) which, along with (1308), was sampled for environmental analysis. Two post-holes [1312, 1314] and a possible intermediate third (no context) were cut into the underlying natural gravel. Like Tr1 and Tr7 in Long Close, the lowest fill in Tr13 in ditch/pit [1313] contained no pottery sherds that need

be later than twelfth century. The upper fills of the feature produced thirteenth-century or later Wessex coarseware, as did the lower fill of ditch/pit [1310].

The Finds (Summaries)

The pottery assemblage

This short report summarises a more detailed report provided in Appendix 1. The pottery assemblage (4880 sherds, weighing 34,235 g) has a focus on the Late Saxon to medieval period. A small but not insignificant number of sherds can be characterised as 'Saxo-Norman' and suggest a phase of activity between the tenth and twelfth centuries focused on the river terrace gravels. These include flint-tempered and chalk-tempered wares, both of which have been found in Wilton and Amesbury and are frequently associated with Michelmersh-type wares. Firm dating for Michelmersh-type wares comes from an archaeomagnetic date of late ninth to eleventh century assigned to one of two excavated kilns (Mepham and Brown, 2007). Whilst only six sherds of Michelmersh-type wares were recovered here, across three trenches, this associative trend appears to be borne out by assemblages in Tr1 and Tr7, where the highest quantities of flint-tempered and chalk-tempered wares were recovered. Equally, a number of mixed-grit sherds were recovered from these trenches and fabrics containing a mixture of inclusion types (quartz, flint, chalk) form one of the classes of Middle/Late Saxon pottery from *Hamwic* (Timby, 1988, group IV). Vessel forms seen here comprise three everted rim jars in chalk-tempered and flint-tempered wares. There is also one body sherd with stamped decoration (Briscoe, 1981, type A3a and pers. comm, A3aiv, a negative grid of 4 x 4 squares), that bears some similarities to a sherd recovered from Teffont, one from a cesspit in the eastern suburb of Old Sarum, and one from Winchester in contexts dating to the eleventh century (Cunliffe, 1964: 107, Fig. 33, No. 15, Saunders, 1974, Fig. 5, No. 23).

Wessex coarsewares were by far the most commonly occurring wares in the assemblage, but these have a wide potential date range, from at least the eleventh century (and possibly earlier) through to the fourteenth and possibly fifteenth century; they include coarseware products of the thirteenth to fourteenth-century kilns at Laverstock (Mepham, 2018). Recent excavations in Wimborne, Dorset, suggest a mid/late Saxon origin for this ceramic tradition (Orczewski et al., 2018), but in the Salisbury area the earliest fixed date is provided by a coin of William I found associated with these wares in a pit at Old Sarum (Stone and Charlton, 1935: 180, 186). It is therefore difficult to isolate 'Saxo-Norman' Wessex coarsewares from medieval wares. The finest fabric variant (Mepham, 2000, fabric E422c), the development of the surface scratch-marking into

more of a light brushing, and the appearance of jars with short, stubby everted rims, either squared in profile or with a groove around the top of the rim, are traits characteristic of the later industry, from the thirteenth century, and there are certainly some sherds of this date here, alongside earlier scratch-marked sherds, jars with simple everted rims (Figure 11) and possible tripod pitcher sherds; there is also one lamp (Figure 12).

Crockerton-type wares are found in the Salisbury area in small quantities from the twelfth century (Musty et al., 2001: 136). The probable source is the Gault Clay, which was worked by the potters of Crockerton near Warminster (Smith, 1997: 21–22, 29). Given that these wares appear rarely in Salisbury after the twelfth century, the examples recovered here may be more likely to belong to the earlier part of their potential date range, perhaps largely confined to the twelfth century. They occur mainly in jar forms (Figure 13).

Glazed Laverstock finewares, products of the thirteenth to fourteenth-century kilns outside Salisbury and with no evidence for their use prior to the foundation of the new city (Musty et al., 2001: 138–139), are relatively common here and confirm a continuation of activity beyond the twelfth century, but there is very little, beyond a handful of unstratified post-medieval sherds, that can be definitively dated later than the thirteenth century.

The current assemblage ranges in date from Late Saxon (tenth to eleventh century) to modern, although activity in the area seems to have largely ceased probably sometime in the thirteenth century, which would be consistent with a move to the new city, although suggesting some overlap between the new city's foundation and the abandonment of the old settlement (or at least the extra-mural part). Late Saxon wares (chalk- and flint-tempered, mixed grit and wheelthrown Michelmersh-type) were found in most of the trenches, but they were most in evidence in Tr1, Tr7 and Tr13. In other trenches, particularly Tr3, Tr6 and Tr8, the 'Saxo-Norman' wares included a higher proportion which are likely to be twelfth-century or later (Crockerton-type wares, Wessex coarsewares), and these trenches were also the ones producing higher proportions of Laverstock finewares and later Wessex coarseware jars, both characteristic thirteenth-century or later indicators. The range of Saxo-Norman wares is well paralleled at contemporary settlements in the area, such as Wilton and Amesbury (Andrews, Mepham and Seager Smith, 2000, Powell et al., 2009, De'Athe, 2012).

Faunal remains

This short report summarises two detailed reports provided in Appendix 2. Although the assemblage of excavated animal bone is too small to provide reliable and detailed information concerning diet, status, and food ways of the animal economy, the zooarchaeological remains were consistent enough to reflect, on the whole, an origin as food refuse with a dominance of sheep/goat. These were most commonly recovered from all trenches, of which only sheep (not goats) could be positively identified. Cattle were next most common followed by pigs, with a few bones of equid (horse or donkey), canid (dog or fox) and chicken (domestic fowl) present in the larger assemblages. Occasional finds of cat, wild mammals (deer, rabbit and hare), wild birds, fish and shellfish were also made alongside a shark vertebra, whilst the sampled deposits yielded small passerine (of a size between a robin or thrush), frog/ toad, and fish remains included herring, mackerel, a species of flatfish and the dermal denticle of a ray.

When the trenches with larger sample sizes are plotted together it is notable that a greater number of sheep/ goat bones were recovered from the Croft, whilst Long Close and the Orchard and Hop Garden yielded more cattle and pig. Unsurprisingly it is the larger assemblages that have greatest diversity of species, and Tr8 is particularly notable for the large number of fish present and high number of chicken bones, both of which imply a more varied diet. Wild mammals were most commonly recovered from trenches in the Croft, suggesting that those living in this area enjoyed a higher-status diet than those living in the area of Long Close, the Orchard and Hop Garden. While it is evident that the population of this area of Old Sarum had access to game, the consumption of such resources remains minimal. Very few deer, hare and rabbit bones are present, and no wild birds except for a pigeon/dove in Tr1 that could have been semi-wild if raised in a dove cote. Of the deer remains, an antler fragment came from Tr8, while limb bones were recovered from Tr1 and Tr10, suggesting that they came from hunted animals. Some very young sheep and perinatal lambs were recorded from Tr8, and a lamb from Tr7, suggesting either that they were bred in the area, or that such animals formed part of the diet. Lambs became more common at the tables of the elite during the medieval period (Holmes, 2018: 169, Table 3.9). The evidence from Tr8 implies that either pigs were bred close by, maybe in the back yard of a tenement, or that they were consumed as sucklers.

There were notable differences between those living in the Croft area and those down on the river terrace gravels. In Tr8 especially, in the area around the proposed canons' houses, there was

evidence for a more varied diet based on a large number of fish being present and a higher number of chicken bones. Hunted animals, wild mammals and lamb bones also suggest that those living in this area enjoyed a higher-status diet. Of the Orchard and Hop Garden area, the sheep/goat assemblage includes meat-bearing long bones of the upper leg which are typical of food waste, as well as numerous loose teeth and lower leg bones more consistent with primary butchery or skin-processing waste. Cattle and pig assemblages here were both characterised by loose teeth and lower-limb bones, again implying butchery or skin-processing waste. The latter deposits came from Tr11, Tr13, Tr15 and Tr16, but they were found alongside the upper limb bones of sheep, indicating that if they did originate as industrial waste, they were disposed of alongside domestic rubbish. It may be that the deeper levels of humus-rich ground here reflect an accumulation of waste from occupation in this area.

Environmental Samples

An assessment of the potential for environmental data was undertaken via the sampling of eight securely stratified deposits across the 2018-19 excavations. The full reports for each season can be found in Appendix 3. In each case the samples provided well-preserved carbonised and mineralised assemblages of environmental remains comprising plant macrofossils, wood charcoal, insects, terrestrial molluscs, small animal and fish bones. All samples merit further analysis to inform on activities undertaken in the settlement and the nature of locally exploited resources.

In 2018, four bulk samples were taken from the large midden pits recovered in Tr8 and Tr10 in the area of The Crofts. From Tr8, two deposits (837, 846) were sampled from midden pit [804]. Both deposits were dominated by the charred cereal remains of naked wheat, barley and large seeded oats and yielded charred vetches (inc. a possible broad bean), hazelnut shell fragments, and seeds of mallow, bedstraw, stinking chamomile, sedges, knotgrass, fumitory, ivy-leaved speedwell, various grasses, goosefoot, flax and – as mineralised remains – dock, mustard, campion and elder. The two samples taken from deposits (1012, 1013) in midden pit [1002] yielded a similar environmental signature where again, charred cereal remains, including naked wheat, barley and large seeded oats dominated. Hazelnut shell and seeds of daisy family (inc. stinking chamomile), bedstraw, vetches and docks featured as charred remains and mineralised seeds of elder and the mint family were also present. Small animal bones, fish bones and scales, and mineralised insect remains were also recorded in both deposits.

The nature and preservation of the environmental evidence retrieved from these samples, particularly the presence of fish scales and bones, insects, and mineralised plant remains, is consistent with the interpretation of the deposits as middens with domestic waste originating from different consumption activities. In both pits, some degree of anaerobic conditions is suggested. Detailed analysis of this evidence would likely provide information on the resources exploited as well as on the sanitary conditions on site and the existence of domestic pests.

In 2019, four samples were taken from across three trenches. These included a sample each from Tr11 and Tr15, a possible house platform. Both samples were taken from the upper layer of the platform, but below the plough line, and were dominated by charred grains including naked wheat, barley and, tentatively, spelt wheat grains. Although the former taxa are compatible with medieval agriculture, the latter taxon suggests the potential reworking of some Romano-British material. Hazel nut shells, seeds of vetches, grasses, sedges and field madder were also recovered in a charred state along with possible mineralised elder. The base fills (1308, 1309) of two amorphous pit or ditch-like features [1310, 1313] were sampled from Tr13. Both yielded charred remains of bread wheat, barley grains and rye. A moderately rich group of other taxa included broad bean and peas, grasses (including oats), hazelnut shell fragments, sedges, stinking chamomile, fumitory, goosefoot, red bartsia and thistle/cornflower.

The charred remains of cereals and other domestic plants such as pulses and flax are indicative of a standard consumption generally consistent with a twelfth to thirteenth-century chronology and no elements are suggestive of access to 'urban', or what might be considered 'exotic' products. The presence of cereal chaff and wild plant seeds – potential weeds from agricultural fields – indicates that some stages of crop processing took place on the settlement. Together, this is all taken to be indicative of a settlement of a rural character.

The nature of the assemblage from the Orchard and Hop Garden was notably different from that obtained from the Croft, where important mineralised deposits comprising fish scales and bones, insects, and plant remains, suggested cess or midden formation processes, often associated with urbanised settlements. However, similarly to the plant remains preliminarily identified in the samples from the Croft, all exploited resources in evidence from the samples taken from the Orchard and Hop Garden could have been cultivated locally and no evidence of exotic or luxurious products was observed. A smaller number of animal and fish bones were recovered from the river

terrace (Long Close, Orchard and Hop Garden), remains that were otherwise more significant in the Croft. The greater number of fish bones (and scales) recovered from the Croft might be seen as consistent with the diet of an ecclesiastical foundation, but some caution is required. More generally for the period, despite the church's restrictions on the consumption of meat, it is difficult to say on the basis of archaeological evidence whether religious communities ate more fish than other socially distinct groups. Fish bones tend to survive best in sealed below-ground deposits such as garderobes and cess-pits, all features that are more likely to occur on high-status, wealthier and religious settlements (Serjeantson and Woolgar, 2006: 106, 128). The Croft samples were taken from just such features whereas those of the Orchard and Hop Garden were derived from made-ground and amorphous pit-like features.

Small Finds (Fe, Cu alloy, bone and stone)

*Pyramidal Copper-Alloy Mount - **WILT-00921E***

A pyramidal copper-alloy mount or stud with gilding finds a very close parallel in a similar example recovered from Urchfont, south Wiltshire, believed to date from circa 1200 AD to circa 1500 AD (Bound, 2018). Stud pin shows evidence of clenching.

https://finds.org.uk/database/artefacts/record/id/1083545

*Lead cloth seal - **WILT-00568F***

Heavily worn late or post medieval lead two-part cloth seal, presumably comprised of two discs although join and integral rivet not discernible. Connecting strip absent, and decoration indiscernible (For a similar example, see Hanbidge, 2019).

https://finds.org.uk/database/artefacts/record/id/1083537

*Spur rowel - **WILT-00BEB3***

Corroded six-pointed star iron spur rowel. Central hole obscured by encrustation and corrosion. Circa. 1300-1700 date range proposed for similar example from Hampshire (Cole, 2015).

https://finds.org.uk/database/artefacts/record/id/1083550

*Whetstone - **WILT-0171B1***

Tip end of narrow (?pendant) whetstone in a blue/grey micaceous schist. Rounded tip shows evidence of fine sharpening with at least four striations around one rounded side. No evidence for suspension hole before the break. A number of similar-sized whetstone/hone fragments, all of schist, have been recovered from Old Sarum, one from the 1911 season when excavations were underway in the inner bailey and two from 1912, the year excavations began on the cathedral site

(Drinkwater, 1991: 172, 178, Fig. 47, No. 19, 20 and 21). All were believed to be Norwegian imports, and they bear similarities in size and material to those recovered from ninth to eleventh century contexts in 16-22 Coppergate York (Mainman and Rogers, 2000: 2488, Fig. 1207, Nos. 9378, 9380 in particular). That their use continues into the medieval period is demonstrable by examples from Winchester and one of twelfth-century date from London (Biddle, Goodhall and Hinton, 1990, Nos. 3034, 3035, Anon., 2020). An Example from Lincolnshire (dated 800-1100) in a very fine-grained, sedimentary, mica-rich stone also shows similar signs of sharpening wear suggesting a technique used to sharpen short blades or perhaps styli (Redmayne, 2018).
https://finds.org.uk/database/artefacts/record/id/1083570

*Horse-harness pendant - **WILT-FFFB07***
Shield-shaped copper alloy pendant with suspension loop integral and turned outwards. It has an ordinary cross decoration and decayed enamelling of indeterminate colour. With well-defined edges this appears to be a well-cast example. On a similar local item (Goodey, 2016) the red enamel of the cross is mostly intact, the field is presumed to be white, and the date range is considered to be circa. 1300 to 1400. Two harness pendants, one of shield-shape the other banner, were recovered from the same garderobe pit in the 1910 excavations at Old Sarum, sporting the arms of the Maudit family of Somerford, Wiltshire, members of which, as office of sheriff, had custody of the castle at Old Sarum in the first half of the thirteenth century (Cherry, 1991: 19).
https://finds.org.uk/database/artefacts/record/id/1083527

*Brooch/Buckle pin - **WILT-FE73B3***
Decorated with a collar stop moulded with diagonally set grooving/fluting, and with a broken loop, this copper-alloy brooch pin tapers sharply to a point. It matches in size pins from numerous annular brooches found in the region dating to the thirteenth and fourteenth centuries (Goodall, 2012: 91–93, Figs. 13-14).
https://finds.org.uk/database/artefacts/record/id/1083452

*Green porphyry - **WILT-FFB4AB***
This fragment of green porphyry (*lapis lacedaemonius*), with its flat upper and underside matches the eight fragments of green and purple porphyry that survive from the twelve recovered from the cathedral excavations of 1912-13 (Tatton-Brown, 1998, 2012). It is likely that these fragments are all that remain of a geometric pavement recovered from the east end of the twelfth-century

cathedral extension immediately in front of what is now considered to be the location for the tomb shrine of St Osmund (Tatton-Brown, 2020: 629, Fig. 1).
https://finds.org.uk/database/artefacts/record/id/1083485

Antler mount - ***WILT-FDDD22***
This flattened strip of (antler), broken at both ends, may have served as a box surround. It is incised with 3 complete and 1 near complete double-ring-and-dot motifs, with an indication of a fourth. Iron oxide staining on the rear may potentially derive from an iron fixing pin although no receiving piercing is evident in this section. It is very similar in form and scale of ring-and-dot motif to a complete antler mount recovered from garderobe pit no. 5 of Old Sarum castle (inner bailey) in 1910 (MacGregor, 2001: 20–21, Fig. 3, Cat. No. 10).
https://finds.org.uk/database/artefacts/record/id/1083438

Discussion

The 2017-19 archaeological interventions to the west of Old Sarum have done much to establish an outline chronology for settlement in this area and the potential of the archaeological record to inform on aspects of the communities that resided there in the medieval period.

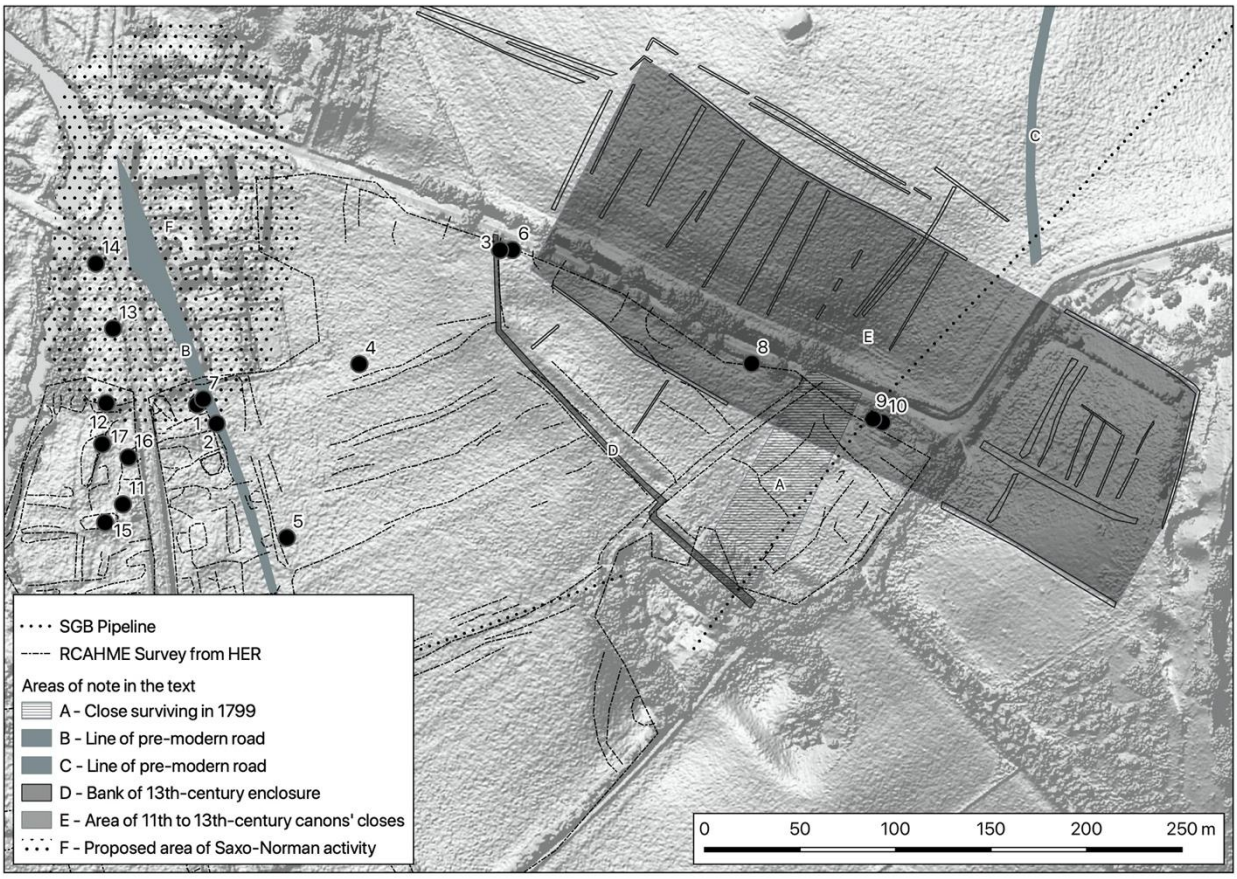

Figure 10: Plan of medieval topography in the western suburbs, showing Area E as the likely footprint of the late 11th-century canons' houses and gardens.

Of greatest significance is the identification through excavation, aerial photography and geophysical survey of the ground plan for the historically attested canons' houses and gardens of the late eleventh century (E, Figure 10) (Jones, 1883a: 198). Extending into Castle Croft and obscured in the geophysical survey by the SGB pipeline, these closes emerge as a series of plots laid out in regular fashion perpendicular to Philips Lane and extending across it into a narrow roadside terrace. The recovery of Wessex coarseware jars of thirteenth century date sealed within the bank of the Croft adjoining the Bean Closes (Tr3, D, Figure 10) indicates that this structure is not related to the setting out of the canons' residences but rather should be considered part of a later re-organisation of the area, perhaps related to the dissolution of the prebend in 1225 (Crittal, 1962b: 200), and the

hypothetical foundation of Newton Westgate at around this time. Likewise, to the north of Phillips Lane, the field boundary of Phillip's Upper Croft (Figure 2) would appear to overlie the canons' closes and to have been set out at a later date.

By the middle of the sixteenth century, the suburb on the west of Old Sarum was already a distant memory (Toulmin Smith, 1907: 261) and the sudden move of the cathedral in the early thirteenth would almost certainly have played a role in its abandonment. A mere four sherds in a ware type defined as 'early Verwood', and one of 'Tudor Green' ware (Mepham, 2000: 35–36), both dating to the fifteenth to sixteenth centuries, are all that were recovered here and suggest that whatever aspirations may have been had for the 'new tun' at the west gate, activity tailed off relatively quickly.

Also of note in the study area is enough evidence in the relatively high proportion of chalk- and flint-tempered, mixed grit and wheelthrown Michelmersh-type vessels recovered from the alluvial plain to support the identification of a riverside settlement of at least tenth-century date (F, Figure 10). Quite what the character of this settlement was is difficult to discern from the small archaeological sample taken and it is likely that the focus of settlement lay somewhere beneath Deans Farm and the Manor House to the north. Low-lying gravel terraces in close proximity to major river crossings and hillforts seems to be the topographical trend in Wessex for settlements that attract early church foundations (Hase, 1994: 54–60) but whether this site was furnished with a church is a matter for speculation. All but two of the seven churches recorded at Old Sarum from the fourteenth century have been accounted for (Musty and Rahtz, 1964: 131–132, Langlands, 2014: 93, 97, Fig. 2). The earliest fabric of St Lawrence's church (Figure 2) is its early thirteenth-century chancel, although an octagonal font of Purbeck marble with shallow blank arches is characteristically twelfth-century (Pevsner, 1975: 500–501). However, the church sits at some distance from the river crossing itself and may, given its dedication, relate to a Norman remodelling of the landscape at the point at which the cathedral community came to settle there and lay out its wider precinct. Elsewhere, the status of Old Sarum in the later Anglo-Saxon period is reviewed in detail but of note is the record in 1086 of both King and Bishop drawing revenue from half a mill each at Salisbury (Williams and Martin, 1992: 162–166, Langlands, 2014) and the most likely location for this would have been in proximity to Old Sarum. Some riverside settlement activity relating to this mill and the crossing of the Avon might be expected at this time. The preponderance of Wessex coarsewares from the assemblages here suggests that this settlement went on to be co-

existent with the occupation of the canons' residences further up towards the west gate of the hillfort throughout the twelfth century.

Activity on the riverside gravel terrace in the thirteenth century is indicated by two platforms exhibiting very similar deposits (Trs 11 and 15, and Tr16) and suggesting structures which at one point may have had chalk or lime-based plastered walls. A fragment of Portland (?)flagstone worn smooth on its upper surface was recovered from the platform surface in Tr16. If, like the small fragment of green porphyry recovered from Tr11, this was robbed from the cathedral site, it would suggest a date of occupation for these buildings contemporaneous with the demolition of the cathedral. The pottery recovered from the platform banks would appear to confirm this and in being relatively short-lived, the abandonment of these buildings fits with the widespread contraction of rural settlements in the late fourteenth to early sixteenth century observed across lowland England (Dyer, 2010). The agricultural strips (RCAHME survey, Figure 10) extending up to the terrace bank (D, Figure 10) can justifiably, on the basis of this relationship, be associated with this episode in the agrarian history of settlement in this area as it continued to have as its focus the river crossing and the residences that survive there to this day.

The platform recorded in Tr16 was clearly truncated by the present-day Stratford Road which may have been laid out at the same time as the setting out of the tree-lined avenue between the manor house and church (Tr5, Figure 2). See also the tree-lined avenue from Marwarden Court running north up to the south door of the church (Figure 2). The levels of made ground in evidence in Tr14 all suggest a re-working of the road system to provide access to the bridge that had otherwise been served by a routeway running from the NE corner of the churchyard, the roadside ditches of which appear to have been picked up as Ditch 0 in the 1969 gas pipeline trench to the north of the church (Figure 4) and in Tr7 as [726/727/728] (B, Figure 10). Both features yielded no ceramic remains and appear to have had large flint nodules near their bases. The line of this route may be remembered in the present-day footpath that follows this course.

Significance and Potential

The investigations undertaken to the immediate west of Old Sarum have identified considerable potential in the archaeological record to inform on the early history of the cathedral church at Old Sarum and the character of its community. The origins of early cathedral communities and, in

particular, the extent to which their canons were living a form of communal life is not fully understood (Webber, 1992: 3–4). There are up to fifty surviving manuscripts produced during the twenty years of Osmund's episcopate at Old Sarum and the fact that in some volumes no less than five scribal hands have been identified on a single page is thought to indicate a community of canons living and working in close proximity to each other (Montague, 2006: 62). At the same time, however, the houses and gardens of the canons identified through this work, and especially their character as distinctly separate tenements laid out against the road, would appear to suggest that a form of limited individualism was allowed (Webber, 1992: 11–17).

Old Sarum is known for being the cathedral community out of which emerged the Sarum Use, a codified liturgical regime that extended to matters of administration (Pfaff, 2009). This body of custom was hugely influential as inspiration for the missals of other English cathedral liturgical rites and finds its origins in the *Institutio Osmundi*, a document purporting to detail the *dignitates et consuetudines* (offices and customs) of Osmund's chapter. Whilst recent analysis has demonstrated that the *Institutio Osmundi* is of mid-12th century date, it is still nonetheless felt to have its origins in a self-conscious tradition in place at the point at which the community was resident at Old Sarum (Greenway, 1985). This was a chapter and a community of canons in the throes of innovation, and one that was to have considerable impact on the structure for other secular cathedral chapters. It is in the furthering of our understanding of the early history of English secular cathedrals and the character of their communities that the archaeological resource identified here is of most significance.

If the relatively high density of archaeological features recovered from Trs 1, 7, 8 and 13 is anything to go by, what appears today to be fields largely vacant of topographic features were, from the tenth through to the thirteenth century, relatively busy places. It is clear from the animal bone recovered that the consistency of the assemblage, reflecting a distinct food economy, has the potential to inform on diet and status, food ways and industry, the animal economy, and use of space in the medieval period. Deep cess pits of the kind recovered in Tr8 and Tr10, and those recovered as a group in the 1969 gas pipe trench (Pits x4, Figure 5) have been found at a number of locations to the east of Old Sarum (Stone and Charlton, 1935, Musty, 1958, Musty and Rahtz, 1964), and the geophysical surveys of the east and west sides of the hill fort suggest that many more survive intact (Strutt et al., 2015, Strutt, 2018). The potential clearly exists for plotting locations where specific types of waste are recovered in order to identify areas associated with the disposal

of animal remains typical of domestic or industrial waste, general dumping, or households of differing status. The assessment of the potential for environmental data also yielded positive results. The environmental samples taken produced well-preserved assemblages, meriting further analysis. Very little information exists for deposits of this kind in the area, and any information obtained from these samples will provide an interesting comparison with that existing for other nearby towns such as Salisbury or Wilton.

Furthermore, this project has provided a useful opportunity to examine an extra-mural pottery assemblage from the western side of Old Sarum, and to record it within the framework of an established regional ware type series. Ideally, this type series should be used to review extant assemblages previously excavated from in and around Old Sarum, to provide a dataset which could then be compared with other later Anglo-Saxon and medieval settlements in the area such as Salisbury, Amesbury, and Wilton.

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Appendix 1: POTTERY, by Lorraine Mepham

Introduction

The pottery assemblage deriving from excavations at Old Sarum between 2017 and 2019 amounts to 4880 sherds, weighing 34,235 g. This assemblage is largely of medieval date (4725 sherds, 33,242 g), with small components of Romano-British (47 sherds, 279 g), Saxon (1 sherd, 2 g) and post-medieval date (107 sherds, 712 g). This came from contexts in 14 of the 16 trenches excavated (no pottery was recovered from Trenches 5 or 12), as well as from three small slots excavated on the eastern side of Stratford Road (pottery from topsoil and colluvial deposits only).

Condition of the assemblage is mixed, but consistent with provenance, ie, topsoil and subsoil contexts produced more fragmentary groups, with sherds smaller and more heavily abraded (representing reworked and redeposited material), while larger, better preserved sherds, including some reconstructable profiles, were recovered from stratified contexts (primary refuse deposits). Mean sherd weight overall is 7.0 g; when viewed chronologically, this falls to 5.9 g for Romano-British sherds and to 6.6 g for post-medieval sherds. Mean sherd weight for topsoil contexts is 5.0 g, and this rises to 14.1 g for stratified feature fills.

Methods of analysis

Analysis of the assemblage at this stage falls somewhere between a 'basic' and 'detailed' record as specified in national standards (Barclay *et al* 2016, sections 2.4.5, 2.4.6). For the assemblage from 2017–18, a scan of pottery from topsoil and subsoil contexts (which formed the bulk of the assemblage) was combined with more detailed recording of pottery from feature fills and other stratified deposits. For the scan, pottery was quantified by ware type, with some brief comment on the presence (but not quantity) of identifiable vessel forms and other diagnostic features. A full breakdown of the Romano-British or post-medieval assemblages was not recorded, and these were generally quantified by chronological period only, although some comments on individual wares were recorded.

For stratified contexts from 2017–18, and the whole assemblage from 2019, details of vessel forms (with measurable dimensions), surface treatment and decoration were also recorded. Estimated Vessel Equivalents (EVEs) have not been calculated as the number of measurable rims is very low; instead, Estimated Number of Vessels (ENV) has been calculated for the 2019 assemblage and the stratified contexts from 2017–18, counting conjoining sherds, or sherds almost certainly from the

same vessel, as 1. The total ENV for this part of the assemblage (2189 sherds) is 2056, which emphasises the very fragmentary nature of the assemblage.

Ware types used throughout are based on the major wares identified for the area (eg. Wessex coarsewares, Crockerton-type wares) The Wessex coarsewares have been subdivided (for the detailed record) following the type series first defined for Laverstock-type wares in the Salisbury area (eg. Mepham 2000, fabrics E422a, b and c), but the Crockerton-type wares (see Smith 1997) have been grouped together. Wessex coarseware vessel forms follow the type series identified for Salisbury and the surrounding area (eg. Mepham 2000a; 2005); other vessel forms are more broadly defined using nationally recommended nomenclature (MPRG 1998).

All data are held in spreadsheet format (Microsoft Excel), and a summary quantification of the assemblage by ware type and by Trench is given here in Tables 1 and 2.

The assemblage

Romano-British wares

The Romano-British material occurred as small, abraded sherds, all of which are likely to be redeposited in later contexts. Four sherds of samian include a rim from an open form of uncertain type. Other wares all appear to be coarsewares, although one oxidised jug/flagon handle in a fine oxidised ware could be Oxfordshire colour-coated ware with the slip entirely worn off. Apart from this, ware types include sandy greywares, oxidised ware and grog-tempered wares, and diagnostic sherds are limited to two everted jar rims which are not closely datable within the period.

Early – mid-Saxon wares

One body sherd in an organic-tempered fabric was recovered, from topsoil in trench 15. Organic-tempered wares are conventionally dated as 5th–8th century.

Saxo-Norman wares

Following the ceramic sequence identified in the Salisbury area, for example at Wilton and Amesbury, and in previous excavations at Old Sarum, several broad ware traditions have been identified for the period between the 10th and 12th century, although the detailed chronology of any developments within that period are as yet imperfectly understood.

Wessex coarsewares

Figure 11: Wessex coarseware cooking pots from Tr8 showing profile (a) and base (b) from (846) and diameter of rim (c) from (847)

These are by far the most commonly occurring wares in the assemblage, but they have a wide potential date range, at least from the 11th century (and possibly earlier) through to the 14th and possibly 15th century. Quartz-rich coarsewares comparable to products of the 13th-/early 14th-century kilns at Laverstock were clearly circulating in the Salisbury area prior to the kilns' operation and, although previously known as 'Laverstock' or 'Laverstock-type' wares, are now defined as 'Wessex coarsewares' to reflect their wide chronological and geographical range (Mepham 2018a). Recent excavations in Wimborne, Dorset, suggest a mid-/late Saxon origin for this ceramic tradition which was exploiting the clay resources of the Reading and London Beds (Mepham 2018b), but in the Salisbury area the earliest fixed date is provided by a coin of William I found associated with these wares in a pit at Old Sarum (Stone and Charlton 1935, 180, 186), although a pre-Conquest circulation in this area too can be surmised. As well as Old Sarum, Wessex coarsewares are common in 11th-/12th-century assemblages around Salisbury, such as at Wilton (Mepham 2012).

Figure 12: Possible lamp (829), missing base. Pedestal or spike lamp?

It is therefore difficult to isolate 'Saxo-Norman' Wessex coarsewares from medieval wares. Detailed fabric analysis of wares from the Salisbury area has resulted in a somewhat arbitrary three-fold division into 'coarse', 'medium' and 'fine' variants (e.g. Mepham 2000, fabrics E422a, b and c respectively). While this does not represent a straightforward chronological development, it is true to say that the coarse variant seems to be the earliest, and therefore more likely to fall into the Saxo-Norman date range, although the medium-grained variant is used for tripod pitchers (late 11th to 12th century) as well as later forms.

Vessel forms from this period concentrate on jars with simple everted rims, along with slightly lid-seated rims and externally thickened rims (Musty *et al* 1969, fig. 7). Two almost complete profiles from Trench 8 appear to belong to round-based forms (Figure 11), which Musty considered to have been superseded by sagging based forms by the middle of the 12th century (Musty 1964, 147), although on what evidence is unknown.

Tripod pitchers are represented by body sherds with rouletted, combed and/or applied decoration, generally glazed, and two tripod feet. One lamp was also identified (Figure 12; Musty *et al* 1969, fig. 24) and three 'West Country' dishes (*ibid*, fig. 11, 42–4). These latter forms resemble the top half of a jar with a flat base and have one or more pre-firing (sometimes post-firing) perforation just above

the base. Their function is uncertain (a pilot project involving residue analysis is currently in progress); they date to the 12th or 13th century.

Crockerton-type wares

Micaceous wares are distinctive within this assemblage, as the local wares rarely contain much visible mica. The probable source is the Gault Clay, which was worked by the potters of Crockerton near Warminster (Smith 1997, 21–2, 29). These Crockerton-type wares are found in Salisbury in small quantities from the 12th century (Musty *et al* 2001, 136); clearly the Crockerton industry never competed seriously with the local Wessex coarsewares, and sherds are rare in 13th-century and later assemblages from the city. Vessel forms seen here are limited to jars with flared or convex neck profiles, and generally with thickened edges (Figure 13); and 'West Country' dishes. Again, it is virtually impossible to distinguish 'Saxo-Norman' from later sherds, although it does seem to be the case that quantities of Crockerton-type wares in Salisbury fall off even further after the 12th century, so these examples may be more likely to belong to the earlier part of their potential date range, perhaps largely confined to the 12th century.

Figure 13: Crockerton rim sherds from Tr8, (832)

Michelmersh-type wares

Michelmersh was the centre for what appears to have been a relatively short-lived wheelthrown industry. Two kilns have so far been excavated (Mepham and Brown 2007), and it seems likely that there were more. One of the excavated kilns has an archaeomagnetic date of late 10th to 11th century; this kiln was producing jars in various sizes. The second kiln was producing spouted pitchers decorated with stamped applied strips. 'Late Saxon Sandy ware' as found in Winchester (Biddle and Collis 1978) in 9th-/10th-century contexts, can probably also be identified as a Michelmersh product. Michelmersh-type wheelthrown sandy wares have been found in Southampton, Romsey, Wilton and Amesbury. Only six sherds were recorded here; one is a jar rim (context 112 in Trench 1), and two are conjoining body sherds with roller-stamped decoration

directly on the body (Figure 14), in a style which is not typical of the wares as is so far known. The other three are undiagnostic body sherds.

Figure 14: Michelmersh-type ware with roller stamp detail, Tr10 (1003)

Cheddar-type ware

Two sherds, both from the 2019 trenches, have been tentatively identified as another regional wheelthrown ware type (both are small undiagnostic body sherds). These are comparable to wares found at the Cheddar royal palaces in Somerset: hard, wheelthrown wares containing sparse quartz and limestone inclusions (Rahtz 1979, 309–18, fabric E). Subsequent analysis suggested a source in south or central Wiltshire (Vince 1984, ch. 11, 12–16). Examples have not, as far as is known, been previously identified in Salisbury, although it is known from Wilton and Amesbury.

Flint-tempered wares

Flint-tempered wares are found associated with early Laverstock-type wares and Michelmersh-type wares in Wilton and Amesbury. They generally contain subangular, patinated flint inclusions; there is some variation in a few sherds here. Six sherds are in sandier fabrics with sparse flint which are closer in appearance to the Kennet Valley-type wares found across west Berkshire and north-east Wilshire (Mepham 2000b) and which form part of a widespread ceramic tradition of sandy/flint-tempered wares across the region. Four sherds containing sparse flint in an oxidised fabric, three of which are glazed and one of which carries curvilinear tooling, may belong to tripod pitchers. No other diagnostic sherds were noted.

Chalk-tempered wares

Chalk-tempered wares have similar associations and are found in similar jar forms, three of which are seen here. There is no specific mention of chalk-tempered wares from Old Sarum in earlier publications (where wares are generally merely described as 'gritty' or 'gritted') but, equally, none of these distinctive everted rim jars are illustrated.

'Mixed grit' wares

Again, these are not specifically identified in earlier publications but may have been present. Nor have they been identified in assemblages from surrounding settlements such as Wilton or Amesbury, although it is possible that they have been grouped with either chalk-tempered or flint-tempered wares. Fabrics containing a mixture of inclusion types (quartz, flint, chalk) form one of the classes of Middle/Late Saxon pottery from *Hamwic* (Timby 1988, group IV). Vessel forms seen here comprise the everted rim jars (three examples) as seen in chalk-tempered and flint-tempered wares. There is also one body sherd with stamped decoration (gridded circle: Briscoe 1981, type A3a).

Medieval Wares

Some of the Saxo-Norman ceramic traditions continued in use into the post-Conquest period, supplemented by some new types.

Wessex coarsewares

These wares continued to dominate the post-Conquest assemblage, unsurprisingly given the known establishment of the production centre at Laverstock just outside the new city sometime in the early/mid-13th century (Musty *et al* 1969). The ten Laverstock kilns were operating at least into the early 14th century and possibly beyond, although the revised relative chronology (Musty *et al* 2001, 138) could profitably be reviewed (author's observations), and the fate of the industry after the mid-14th century is still uncertain.

While undiagnostic sherds in the current assemblage cannot be readily dated within the overall Late Saxon to medieval chronology, certain traits are characteristic of the later industry. These include a move towards the finest fabric variant (Mepham 2000a, fabric E422c), the development of the surface scratch-marking into more of a light brushing (sometimes described as 'developed scratch-marked ware'), and the appearance of jars with short, stubby everted rims, either squared in profile or with a groove around the top of the rim (Musty *et al* 1969, fig. 10, no. 36–8; Mepham 2000a, jar type 4). Also seen here are three handled jars (Mepham 2005, jar type 5), a few strap-handled jugs,

sometimes partially glazed (Figure 15), a dish with a hammerhead rim, and two rims from possible curfews (thick-walled vessels with an open profile). The hammerhead dish rim is an unusual form for Salisbury (dish rims are more usually thickened but not to that extent) and is more commonly found in the southern part of the Wessex coarseware distribution, for example in Poole (Barton *et al* 1992, fig. 33, nos 55–6).

Figure 15: Medieval strap-handled jug, partially glazed, Tr3 (305)

Laverstock finewares

These wares are quite clearly linked to the Laverstock kilns, and their use cannot on current evidence be dated prior to the establishment of this production centre sometime in the first half of the 13th century. The finewares were used primarily for glazed jugs, frequently decorated, although recent re-examination of the kiln material suggests that evidence to support the proposed chronological sequence of simply decorated (combed and incised) jugs early in the 13th century superseded later in the century by slip-decorated vessels (Musty *et al* 1969, 111–23) is ambiguous (author's observations). Plainer wares could, for example, be considered to be more characteristic of later, 14th-century horizons.

In this instance, while the finewares, which include both simply-decorated and slip-decorated examples, are an indication of a 13th-century or later date for certain contexts, associated wares and vessel forms in the 2017–18 trenches (evidence from 2019 was more ambiguous) suggest that these could well be restricted to the first half of the century, although in Salisbury itself their use appears to have continued well into the 14th century and possibly later (Mepham 2016, 156). No forms other than jugs were observed.

Crockerton-type wares

As noted above, these wares appear in the Salisbury area from the 12th century; they have been considered here as largely confined to that century, although their use in the city clearly extended into the 13th century at a very low level.

Miscellaneous sandy wares

Fifty sherds in miscellaneous sandy wares remained unattributed to known type/source at this stage, although it is possible that further analysis could help with identification. These are fine- to medium-grained wares, generally firing orange-red but also including some paler-firing wares. Eight sherds in a distinctive pinkish-red fabric, all from Trench 8, could belong to a single vessel. Two sherds just might be Michelmersh-type, although not typical examples, and one could be Romano-British. Two are pale-firing but do not appear to fall within the range of the Laverstock finewares. One other sherd with traces of an external white slip could be a Nash Hill product (McCarthy 1974, fabric B). Another oxidised (firing orange-red) sherd carries complex applied strip decoration, while another four sherds of a similar firing colour are undiagnostic and quite non-distinctive. One tiny rim from topsoil in trench 11 and a small body sherd retrieved from a soil sample taken from layer 1503 are so undiagnostic that they could be Saxon or even Iron Age. Otherwise these sherds are most likely to date between the 13th and 15th centuries. Three sherds are glazed, but the only other diagnostic sherds comprise one jug handle and a couple of thumbed jug bases.

Late medieval/early post-medieval wares

Late medieval horizons have proved difficult to identify in Salisbury, partly because of the lack of knowledge of the Wessex coarseware/Laverstock industry after the early 14th century. However, none of the bifid rims or bunghole spouts which can be definitively dated to the 14th-16th centuries are present here, and the only sherds that can be attributed to this chronological horizon are four sherds in a ware type defined as ‘early Verwood’, which appears to fall somewhere between the medieval Laverstock and post-medieval Verwood industries (Mepham 2000, 35–6). In

Salisbury this ware type is date to the 15th/16th century, and occurs alongside 'Tudor Green' ware, one sherd of which is present here.

Post-medieval wares

Post-medieval wares were only found in topsoil contexts. They include the expected range for the area, of redwares, probably from Crockerton or one of the Somerset production centres, mixed with Verwood-type earthenwares from east Dorset, together with tin glazed earthenware, English stoneware and factory-made refined wares.

Distribution

Tables 1 and 2 give the breakdown of the assemblage by trench. Quantities ranged from nine sherds to 2011 sherds per trench, and the best stratified groups were recovered from the 2017–18 trenches to the east of Stratford Road. Pottery from the three small slots excavated in 2019 on the eastern side of the road (see Table 2) is not discussed here.

Trench 1

Trench 1 produced 107 sherds (696 g), of which seven sherds (23 g) came from topsoil. Saxo-Norman wares make up at least 22% of the total by sherd count, and this includes three handmade jars (with short everted rims), one wheelthrown Michelmersh-type jar of similar form, and a stamped body sherd. Wessex coarsewares are excluded from this group as the chronological breakdown is uncertain, although some may be 11th-/12th-century; vessel forms in these wares comprise three jars of type 1, one of type 2 and one of type 4, and there is also one coarseware jug. There is only one sherd of Laverstock fineware, which might indicate a largely pre-13th century date range for this trench assemblage.

This is unlikely to represent primary refuse – sherds are relatively small and abraded (mean sherd weight 6.5 g). The pottery does, however, suggest that the earliest feature (ditch 113, which produced a single sherd of Michelmersh ware, could well be Late Saxon, and that layers sealing this feature (109, overlain by 107), containing calcareous, flint-tempered and mixed grit wares, Crockerton-type ware and Wessex coarsewares may be no later than 12th-century. Ditch 108, which cut through these layers, contained a similar mix of wares, but also produced a single sherd of Laverstock fineware, placing the backfilling of this feature in the 13th century (unless the sherd is intrusive). Two post-medieval sherds were found in the topsoil.

Trench 2

Only 28 sherds were recovered from Trench 2, all but three of them from topsoil. This includes at least five Saxo-Norman sherds, and one residual Romano-British sherd. No further comment is possible on this small group.

Trench 3

The assemblage from this trench amounted to 436 sherds (4222 g). A high proportion (284 sherds; 65% by sherd count). The proportion of Saxo-Norman wares here is low (minimum of 17 sherds). Wessex coarsewares predominate, and again the chronological breakdown is unknown, although the absence of other Saxo-Norman wares suggests that this trench group is more likely to be 13th-century or later (although there is one glazed and decorated sherd from a possible tripod pitcher), and this is supported by the presence of Laverstock finewares (13% of the trench total). Vessel forms in Wessex coarseware include nine jars (two of type 1, one of type 2, one of type 3 and four of the later type 4, with one handled jar) and four jugs.

The 13th-century or later date is borne out by the stratigraphic sequence. Wessex coarseware jars of type 4 were found in the bank material (306), one of the earliest deposits excavated, and in secondary fills of ditch 314 (305, 307; no pottery was recovered from lower fills). The upper fill (fill 305, 89 sherds) contained larger sherds, including two conjoining groups: one complete unglazed jug profile (Figure 15), and the lower part of second, glazed jug. Mean sherd weight for this context group is 24 g, suggesting that this represents primary refuse. An early 13th-century date can be suggested for this context group, although it contained one type 4 jar, produced no Laverstock finewares. Other context groups are smaller and in poorer condition and are more likely to be secondary refuse.

Trench 4

Only nine sherds came from this trench, all from topsoil and including one post-medieval and two Romano-British sherds; no further comment is possible.

Trench 6

This trench yielded a substantial group (883 sherds; 3129 g), but the majority of this (836 sherds) came from topsoil. A small proportion are probably Saxo-Norman; this consists largely of micaceous Crockerton-type wares (probably 12th-century+) rather than the earlier chalk-tempered and flint-tempered wares. As this topsoil assemblage was subject to scanning rather than more detailed recording, vessel forms were not recorded, but one tripod pitcher sherd in Wessex coarseware was

noted. Laverstock finewares make up 8% of the trench total, and these include a high proportion of slip-decorated sherds (finewares from other trenches were almost exclusively plain). Four of the five late medieval/early post-medieval wares (15th-/16th-century) from the site were found in this trench (three sherds of early Verwood and one of Tudor Green), all from topsoil.

Stratified sherds were confined to layer 603, possibly a buried soil (47 sherds). These include Wessex coarsewares (type 1 jar; jug) and two body sherds of Laverstock fineware, suggesting a date of 13th-century or later. There is also a residual Romano-British sherd.

Trench 7

This trench group consisted of 323 sherds (2119 g), of which 78 sherds came from topsoil. Saxo-Norman wares make up at least 21% of the total, and this is made up largely of chalk-tempered, flint-tempered and mixed grit wares, ie. more likely to be 10th-/11th-century. Wessex coarsewares are likely to add at least a few further sherds to this date range, as these include a tripod rim and decorated body sherd, although jar forms focus on types 3 and 4 (eight examples out of 10) which are more likely to be 13th-century or later. There are only nine sherds of Laverstock fineware. Late medieval and post-medieval wares (16 sherds) were confined to topsoil. Residual Romano-British sherds (7, half the total from the site) were spread between topsoil and stratified contexts.

The fill of pit 723 was not productive in terms of pottery (eight sherds recovered), but this comprised only Saxo-Noman wares (calcareous and flint-tempered). The same is true of the basal layer in ditch 724 (fill 716), which contained only Wessex coarseware and calcareous ware, and could be 11th-/12th-century, but undue weight should not be put on this since only four sherds were recovered. The overlying ditch fill (709) yielded Laverstock fineware. Just under half the total trench assemblage (153 sherds) came from layer 705, but this comprised small sherds (mean sherd weight 6.8 g) with no conjoins noted, so this is probably secondary rather than primary refuse; the presence of Laverstock fineware indicates a date of 13th century or later for this context group. Mean sherd weight is uniformly low for other layers too (6.9 g for all stratified contexts combined).

Trench 8

The largest group was recovered from this trench (2011 sherds; 16,369 g). More than two-thirds of this (1376 sherds) came from topsoil, but the remaining sherds from stratified contexts included several well preserved feature groups. Saxo-Norman wares make up at least 10% of the total but, as for Trench 6, these consist overwhelmingly of Crockerton-type wares which are more likely to be 12th- or early 13th-century. In addition, Wessex coarsewares include 12th-century or earlier tripod

pitchers (handle, foot and decorated body sherds), as well as a high proportion of jars of type 1 (14 out of 21 examples, the others of types 2 and 4), a lamp and two 'West Country' dishes. Laverstock finewares are well in evidence (14% of the trench total) and include a few slip-decorated sherds. Post-medieval wares were confined to the topsoil.

More stratified contexts were excavated in this trench than in any of the others. Sherd counts for these contexts ranged from one to 116, and mean sherd weight overall is 13.6 g. The group from pit 804 (lower fills 837 and 846) appears most likely to comprise primary refuse. The group from 837 included 14 sherds from one Wessex coarseware type 1 jar profile (mean sherd weight for this context 24.5 g), while 846 produced one large sherd making up a whole jar profile (also a type 1 Wessex coarseware jar; Figure 11), as well as two probable same-vessel sherd groups, both Crockerton-type ware jars (mean sherd weight 27.8 g; Figure 13).

The date range for the stratified pit groups appears to be relatively consistent, at least for the larger groups. The presence of Crockerton-type wares, and a preponderance of type 1 jars amongst the Wessex coarsewares, as well as a few tripod pitcher sherds, could suggest a 12th-century date extending into the 13th century, while a few sherds of Laverstock finewares, largely plain or with simple incised or combed decoration, could narrow that down to the early 13th century. In pits 804, 812 and 828, the finewares are restricted to secondary fills (upper fill in 812), with lower fills containing Wessex coarsewares and Crockerton-type wares.

Trench 9

This trench produced only 29 sherds, all from topsoil. No sherds were definitively identified as Saxo-Norman. No further comment is possible.

Trench 10

One hundred and forty-five sherds (2102 g) were recovered from this trench, of which 24 were from topsoil. A few sherds of Saxo-Norman wares were noted, including flint-tempered and roller-stamped possible Michelmersh-type wares (10th-/11th-century; Figure 14). The Wessex coarsewares could also be largely of this Saxo-Norman date range, including only type 1 and 2 jars, as well as a tripod pitcher foot and five decorated body sherds.

Mean sherd weight is variable for the six stratified contexts (ranging from 4.8–23.1 g) and very few conjoining sherds were noted. At least two context groups contained what appear to be chronologically mixed groups, including Saxo-Norman wares as well as a few sherds of Laverstock

fineware, with a latest date probably in the early 13th century. The sequence for pit 1002 appears similar to that for the pits in Trench 8 (perhaps 12th- to 13th-century) – the lowest excavated fill (1013) producing Crockerton-type and Wessex coarsewares, while upper fills produced Laverstock finewares.

Trench 11

This trench was the most productive in terms of sherd numbers (360). All but two sherds, however, came from topsoil and subsoil layers with a fairly mixed assemblage from both, although the few post-medieval sherds were confined to the topsoil. The remaining two sherds came from the base of the stratigraphic sequence (1105) and comprised one of Crockerton-type ware and one Romano-British grog-tempered sherd. This is extremely slim evidence but could suggest a 12th-century date for the base of the sequence.

Trench 13

An assemblage of 134 sherds was distributed between subsoil/made ground (1302, 1303), two cut features (ditches/pits 1310 and 1313), and a lower layer cut by 1310 (1304). Layer 1304 and the lower fill of ditch/pit 1313 contained nothing that need be later than 12th century, although later fills of the feature produced 13th-century or later Wessex coarseware, as did the lower fill of ditch/pit 1310.

Trench 14

Only 20 sherds were recovered from this trench, all from a silty loam layer below the topsoil. They include 13th-century or later wares.

Trench 15

An assemblage of 264 sherds was recovered from this trench. These came from topsoil and from a series of three underlying layers. The assemblage appears fairly mixed: a modern sherd was found in layer 1503, a buried ploughsoil layer, while the four sherds from the lowest layer (1504) included two of 13th-century or later Wessex coarseware. The single Saxon sherd came from the topsoil in this trench.

Trench 16

The 100 sherds from this trench were distributed between the topsoil and one underlying layer (1602). Both contained 13th-century or later wares, with post-medieval sherds confined to the topsoil.

Discussion

This project has provided a useful opportunity to examine an extra-mural assemblage from the western side of Old Sarum, and to record it within the framework of an established regional ware type series. Ideally, this type series should be used to review extant assemblages previously excavated from in and around Old Sarum (much of the material from Stone and Charlton's excavations in the eastern suburbs was unfortunately destroyed), to provide a dataset which could then be compared with other Late Saxon and medieval settlements in the area (eg, Salisbury, Amesbury, Wilton).

The current assemblage ranges in date from Romano-British to modern, with a focus on the Late Saxon (10th/11th century) to medieval period, although activity on the site seems to have largely ceased probably by the middle of the 13th century. This would be consistent with a move to the new city, although suggesting some overlap between the new city's foundation and the abandonment of the old settlement (or at least the extra-mural part). Late Saxon wares (chalk- and flint-tempered, mixed grit and wheelthrown Michelmersh-type) were found in many of the trenches, but they were most in evidence in Trenches 1, 7 and 9. In other trenches, particularly Trenches 3, 6 and 8, the 'Saxo-Norman' wares included a higher proportion which are likely to be 12th-century or later (Crockerton-type wares, Wessex coarsewares), and these trenches were also the ones producing higher proportions of Laverstock finewares and type 4 Wessex coarseware jars, both characteristic 13th-century or later indicators. The range of wares is well paralleled at contemporary settlements in the area, such as Wilton and Amesbury.

Excavations on the eastern side of Old Sarum seem to have produced assemblages with a narrower date range (Stone and Charlton 1935, 184–91; Musty 1959, 187–9; Musty 1964). Although fabric descriptions do not match up to modern standards in describing the inclusions in detail (they are 'sandy' or 'gritty', with the 'grit' not further defined), there is no obvious mention of flint or chalk inclusions, and the illustrated vessels accord with the late late 11th-/12th-century range of Wessex coarsewares, featuring round-based jars, 'West Country' dishes and tripod pitchers. Earlier activity therefore seems to have been focused on the western side of the hill-fort.

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Appendix 2: ANIMAL BONE, by Matilda Holmes

2017-18 report

Introduction

A small assemblage of animal bone was recovered from Trenches one to four, six to eight and ten. Trenches three, six, eight and ten are found along the western road and most likely to relate to 11th-12th century houses, while Trenches one, two, four and seven are located in the extramural suburb. Trenches seven and eight produced the largest assemblages of animal bone (Table 1) but contain material from several features and phases. Despite the ambiguous phasing and different features encountered, the assemblage is consistent between trenches. Phasing is ambiguous, and the results are generally similar across the site, so the assemblage is considered as a whole, with reference made to specific trenches as the findings require. Data are separated by trench in the data tables.

Methodology

Bones were identified using the author's reference collection. Due 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. Frogs and toads were separated following criteria in Ratnikov (2001). 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. Details of associated bone groups were recorded in a separate table.

Where bones from both sides of the body of a single individual could be identified from an ABG, only one set of bones were measured.

Quantification of taxa and anatomical elements used a count of all fragments (NISP – Number of Identified Specimens). Mortality profiles were constructed based on tooth eruption and wear of mandibles and loose 3rd molars (Hambleton 1999) and bone fusion (O'Connor 2003). Sheep/ goat were sexed on the basis of the morphology of pelves (Davis 2000) and pigs by their canines (Schmid 1972).

Taphonomy and Condition

Bones were in good to fair condition, which was consistent across all trenches (Table 2). However, the presence of numerous fresh breaks and loose teeth (Table 3) suggest that bones were friable upon excavation. Low incidences of gnawing suggest that bones weren't always buried immediately following discard but were available for dogs to chew. Similarly, higher numbers of loose teeth over those remaining in the mandibles is indicative of deposits that were not buried immediately or were disturbed post-depositionally. A few fragments showed signs of butchery, and the assemblage was highly fragmentary suggesting that the bones had been intensively utilised for meat and marrow. Burnt bones were also relatively scarce, with no large concentrations to suggest the deposition of material that had been exposed to fire as a means of fuel, cooking methods or disposal.

There were no specific deposits of butchery, skin-processing or bone-, horn- or antler-working waste. There was little to indicate the presence of primary contexts, although an unfused distal humerus with its associated epiphysis was found in context 1013 from bones that were buried while fleshed and not disturbed following disposal. A similar pattern is attested by the partial skeleton of a toad from context 8017, although a few bones from a canid (dog or fox) in context 722, dog in context 301 and rabbit in context 311 may represent the disturbed remains of whole animals.

Carcass Representation and Butchery

Bones came from all parts of the carcass (Table 3), with a high proportion of loose teeth that reflects preservation of the material. Vertebrae were relatively scarce, which may suggest that butchery waste was disposed of elsewhere. Limb bones are well-represented, which is typical of assemblages resulting predominantly from food waste. As noted above few butchery marks were recorded, the majority observed on cattle, sheep/ goat and pig as well as a couple of chicken bones.

Butchery most commonly related to the disarticulation and jointing of the carcass, removal of brains and filleting of meat from the bones, again indicative of food refuse. One exception to this came from Trench 7 (context 706), where a cut mark on a dog humerus was recorded. It is unlikely that dog meat was eaten by people during this period unless in times of stress, it is more likely that it was made when the animal was skinned.

Species Representation and Diet

Sheep/ goat bones were most commonly recovered from all trenches (Table 4), of which only sheep (not goats) could be positively identified. Cattle were next most common followed by pigs, with a few bones of equid (horse or donkey), canid (dog or fox) and chicken (domestic fowl) present in the larger assemblages. Occasional finds of cat, wild mammals (deer, rabbit and hare), wild birds, fish and shellfish were also made.

When the trenches with larger sample sizes are plotted together (Figure 1) it is notable that a greater number of sheep/ goat bones were recovered from the western road, while those in the suburbs had more cattle and pig. This may indicate a difference in status, although some sample sizes remain small. Unsurprisingly it is the larger assemblages that have greatest diversity of species, and Trench 8 is particularly notable for the large number of fish present and high number of chicken bones (Table 4), which imply a more varied diet. Wild mammals were most commonly recovered from other Western Road trenches (3, 6 and 9), suggesting that those living in this area enjoyed a higher-status diet than those in the suburbs. While it is evident that the population of this area of Old Sarum had access to game, the consumption of such resources remains minimal. Very few deer, hare and rabbit bones are present, and no wild birds except for the pigeon/ dove in Trench 1 that could have been semi-wild if raised in a dove cote. Of the deer remains an antler fragment came from Trench 8, while limb bones were recovered from Trenches 1 and 10, suggesting that they came from hunted animals.

Some animals are more likely to have originated from the local environment, such as the frog/ toad, garden snail, jackdaw and possibly the pigeon, rather than anthropogenic sources.

The human bone recovered from Trench 8 (pit 818) is a proximal humerus from a perinate.

Sheep/ goat

Sheep were the most common animals found on the site, and the ageing data are consistent between trenches (Tables 5 and 6). Most animals were culled between tooth wear stages E and H – these would be young adult and adult animals at prime meat age. A few very old sheep are also

evident at wear stage I, which may have been valued as breeding or dairy animals. Some very young sheep and perinatal lambs were recorded from Trench 8, and a lamb from Trench 7, suggesting either that they were bred in the area, or that such animals formed part of the diet. Lambs became more common at the tables of the elite during the medieval period (Holmes 2018, 169, Table 3.9). Two sheep/ goat pelves from Trench 8 were morphologically consistent with the presence of a female and male animal. Two sheep/ goat mandibles from Trench 8 showed signs of periodontal disease, and a radius from Trench 3 had slight lipping to the lateral aspect of the proximal end.

Cattle

Fewer data were available for cattle, although these too appear to have largely been culled for meat at around the age of adulthood when the late-stage bones are fusing (Table 6). Younger animals are evident in the tooth wear (at wear stage D) and fusion data as well as older animals that would have been used for traction and/ or milk. Several cattle foot bones bore signs of pathology consistent with age-related change (a phalanx and metacarpal from Trench 7 and a phalanx from Trench 3), although such changes are more prevalent in animals used for traction and may indicate the presence of animals used for draught purposes.

Pigs

Pigs were kept for meat, with no adult animals recorded, a single mandible produced a wear stage of E, from an animal nearing old age. This is not an unusual strategy for pigs as they have little value for secondary products. Two perinatal remains from Trench 8 imply that either pigs were bred close by, maybe in the back yard of a tenement, or that they were consumed as suckling pig. Three pig canines were recovered indicating the presence of two females (Trenches 1 and 6) and a male (Trench 8).

Other Taxa

As noted above, other taxa were relatively scarce. Equid bones were not complete enough to identify if they came from horse or donkey. Two were pathological, a sacrum with lipping to the posterior articular surface, and a metapodial with eburnation and pitting to the articular surface. These changes may be expected in older animals.

Of the canids, fox was not identified, but measurements taken on metapodials from the ABG in Trench 3 showed it to be dog (Ratjen and Heinrich 1978). A puppy was present in Trench 8 (context 819), and the only cat bone came from a kitten in Trench 5 (context 307).

Chickens were present in most trenches. Neither of the two tarsometatarsi had spurs, suggesting that they were both from hens, though there was no medullary bone in the two broken chicken bones to indicate that the birds were in lay. As well as older chickens, a few chick bones were recovered from Trenches 6, 8 and 10 implying that these birds were bred close by, possibly kept in the back yards of the houses.

Summary

Despite small sample sizes, the 2018 excavations at Old Sarum produced consistent zooarchaeological assemblages, reflecting an origin as food refuse and a dominance of sheep/ goat. It was also consistent with the nature of the area as a consumer site from the provision of animals for meat and a redistribution of carcass parts. This apparent homogeneity was most likely largely due to the desertion of the area in the late medieval period, sealing deposits from later disturbance. It is less likely that it represents mixing of deposits across the whole site, as there were also notable differences between those living along the western road and those in the suburbs. The former had a greater number of sheep/ goats, greater diversity of species, and more perinatal animals which can be indicative of a more affluent diet.

2019 report

Introduction

A small assemblage of 351 hand-collected fragments of animal bone were recovered from the 2019 season, trenches 11, 13, 14, 15, 16, 18, 19 and 20 situated to the west of the 2018 interventions. 99 fragments could be identified to taxa, and a further 34 from the 2019 and 2018 samples. The assemblage is of medieval date, and although it is too small for detailed analysis, will be considered in broad terms of diet, food ways and economy and a comparison with previous excavations. Suggestions are also made for potential directions for the zooarchaeology of the project in future seasons.

Methodology

Bones were identified using the author's reference collection. Due 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. Due to problems with the identification of post cranial bones of micro-mammals, only their mandibles and maxillae were identified to taxa.

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 (Behrensmeyer in 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. Details of Associated Bone Groups (ABGs) were recorded in a separate table. 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.

Quantification of taxa and anatomical elements used a count of all fragments (NISP – Number of Identified SPecimens). Mortality profiles were constructed based on tooth eruption and wear of mandibles (Grant 1982; Jones and Sadler 2012) and bone fusion (O'Connor 2003).

Taphonomy and Condition

Bones were generally in good to fair surface condition (Table 1), though with a high proportion of fresh breaks indicating they were friable upon excavation. This is may also have led to the high proportion of loose teeth compared to those remaining in the mandible. Very little evidence of canid gnawing was observed, which suggests that bones were buried soon after discard rather than being available for dogs to chew. A flatfish vertebra from context 1013 (from the 2018 samples) showed signs of having been digested. A few observations of butchery and burning were recorded. The scarcity of the latter indicates that bones were not routinely exposed to fire either as a means of cooking, disposal or fuel.

There were no obvious deposits of butchery, skin-processing or craft-working waste, and the only associated bone groups came from three frog/ toad partial skeletons from context 1012 and another from context 1012, both from samples taken in the 2018 season. A fragment of medium-mammal pelvis from context 1601 was suspiciously fresh looking, with butchery more consistent with late medieval or post-medieval saw marks.

A single cattle metapodial fragment from context 1503 showed signs of polish on the shaft that indicates wear.

The Assemblage

A diverse range of taxa was recovered considering the small size of the assemblage. Sheep/ goat remains were most common, followed by cattle and pig (Table 2). A horn core could be positively identified as sheep, but no goat remains were recorded. Part of an equid (horse or donkey) pelvis and two teeth were recovered from the hand-collected material, as well as a few domestic fowl (chicken) bones and a shark vertebra. The samples produced the further addition of a cat femur and tibia, probably from the same individual, small passerine (of a size between a robin or thrush), frog/ toad including at least four individuals described above and a common garden snail. Further fish remains included herring, mackerel, a species of flatfish and the dermal denticle of a ray (probably thornback ray). The relative proportions of the major domesticates and fish remains are similar to those recovered from previous excavations along the western road, rather than the suburbs to the east (Figure 1).

The anatomical elements present represent two processes. The sheep/ goat assemblage includes meat-bearing long bones of the upper leg which are typical of food waste, as well as numerous loose teeth and lower leg bones more consistent with primary butchery or skin-processing waste. Cattle and pig assemblages were both characterised by loose teeth and lower-limb bones, again implying butchery or skin-processing waste. The latter deposits came from trenches 11, 13, 15 and 16, but they were found alongside the upper limb bones of sheep, indicating that if they did originate as industrial waste, they were disposed of alongside domestic rubbish. These trenches were not grouped spatially, again indicating a general disposal pattern, and it may be that this area on the outskirts of the suburbs was used as a general dump for all inhabitants of the town.

Because of the high fragmentation of the assemblage there were minimal mortality data. However, the available evidence indicated that sheep/ goats were culled as juveniles and adults (Table 4), with tooth wear data also reflecting the presence of a young adult at wear stage F and an adult at wear stage G/H. Cattle were adult when culled, reflected in both the fusion data, and presence of two animals at wear stage G and one at H. There were very few pig bones useful for mortality data, but a single mandible was recorded from a subadult at wear stage D/E. The porous bones of perinatal calves and chicks were also present, indicating either that both were bred close by, or that veal calves were brought into the town.

The sheep horn core had a ‘thumbprint’ mark at the base, characteristic of malnutrition in lactating ewes (Albarella 1995).

Future Directions

Although this assemblage is too small to provide reliable insights into diet, status or the animal economy, data from this and the 2018 season of excavation can be used to put forward some key themes that future interventions may have the potential to inform:

1. Diet and status – quantification of species can provide an insight into what people were eating, and implications regarding social status, particularly the relative proportions of the major domesticates (cattle, sheep/ goat and pig), domestic and wild birds, fish and wild mammal taxa.
2. Food ways and industry – quantification of anatomical elements can be useful to understand how food is moved from producer to consumer sites, and within settlements. A consideration of butchery techniques and finds of primary butchery, craft-working and skin-processing waste can point to the presence of specialists within the town. The range of fish taxa can also be used to imply fishing technology.
3. Taphonomy – understanding taphonomic mechanisms can inform the project to the whereabouts of primary contexts and various formation processes such as redeposition and delayed burial.
4. Use of space – plotting areas where specific types of waste are recovered can help identify areas associated with the disposal of animal remains typical of domestic or industrial waste, general dumping, or households of differing status.
5. Human-animal relationships – the treatment of non-food animals such as dogs, cats and horses can be used to infer attitudes towards animals. Evidence for butchery, disposal and pathologies affecting these taxa can be useful to understand how animals were treated in life and death.
6. Animal economy – analysis of the demography (age and sex) of cattle, sheep/ goat and pig populations can be used to infer what they were used for in the wider economy.
7. Inter-site comparisons – data from Old Sarum can be compared with that from other sites, both contemporary urban sites, and rural sites in the hinterland, to place interpretations based on research themes 1-6 in the wider context.

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Appendix 3: ENVIRONMENTAL EVIDENCE by Inés López-Dóriga

2018 Assessment of Environmental Evidence (210431.1)

Acknowledgements
The samples were processed by Jenny Giddins and Jenna Jackson. The flots were sorted by Nicki Mulhall and assessed by Inés López-Dóriga. This report was written by Inés López-Dóriga with contributions from Sam Rogerson and Nicki Mulhall.

1.1 Introduction

1.1.1 The flots from four bulk sediment samples were processed and assessed for environmental evidence. The samples have provided well-preserved assemblages of environmental remains, comprising plant macrofossils preserved by carbonisation and mineralisation, wood charcoal, insects, terrestrial molluscs, small animal and fish bones. Some of this evidence, such as the plant macrofossils and the animal bone, merits further analysis to inform about the activities undertook in the settlement and resources exploited.

1.2 Materials and Methods

1.2.1 Four bulk sediment samples taken from two pits of Medieval chronology were processed for the recovery and assessment of the environmental evidence. Three of the bulk sediment samples were 40 litres in volume and one was 20 litres. The samples were processed by standard flotation methods on a Siraf-type flotation tank; the flot retained on a 0.25 mm mesh, residues fractionated into 5.6 mm and 0.25 mm fractions. The coarse fractions of the residues (>5.6 mm) were sorted by eye and discarded. The fine fractions of the residues have been retained for further conditional analysis, based on the results of this assessment. The flots were scanned using a stereo incident light microscopy (Leica MS5 microscope) at magnifications of up to x40 for the identification of environmental remains. The presence of bioturbation indicators and the preservation and nature of the environmental evidence (plant remains and wood charcoal, molluscs, animal bone and insects), was recorded. Preliminary identifications of dominant or important taxa are noted below, following the nomenclature of Stace (1997) for wild plants, and traditional nomenclature, as provided by Zohary and Hopf (2000, Tables 3, page 28 and 5, page 65), for cereals. Abundance of remains is qualitatively quantified (A*** = exceptional, A** = 100+, A* = 30-99, A = >10, B = 9-5, C = <5) as an estimation of the minimum number of individuals and not the number of remains per taxa. Mollusc nomenclature follows Anderson (2005).

1.3 Results

1.3.1 The flots were generally small (Table 1: Assessment of the macrofossil environmental evidence) and there were low numbers of roots and modern seeds and moderate numbers of the burrowing snail *Cecilioides acicula* that may be indicative of some stratigraphic movement and the low possibility of contamination by later intrusive elements. Preservation of plant remains was predominantly by charring but some mineralised material was recovered, both comprised varying degrees of preservation. Wood charcoal was noted in generally small quantities and was mainly from mature wood, with roundwood noted in one sample. Remains of terrestrial molluscs and small animal bones were also present. Fish bones, scales and mineralised insect remains were present in some

samples. No other environmental evidence was preserved. Industrial waste was noted in one sample.

1.3.2 The samples from both deposits from pit 804 were dominated by charred cereal remains including *Triticum aestivum/turgidum* (naked wheat) grains and rachis internodes, *Hordeum vulgare* (barley) and large seeded (probably cultivated) *Avena* sp. (oats). Deposit 837 also contained a Triticeae (cereal, further identification not possible) culm node and culm base whilst deposit 846 contained cereal awns. Both deposits produced charred and mineralised remains of other taxa. Deposit 837 contained charred Vicieae (vetches, including a tentatively identified *Vicia faba* (broad bean)), *Corylus avellana* (hazel) nut shell fragments, and seeds of *Malva* sp. (mallow), *Galium* sp. (bedstraw), *Anthemis cotula* (stinking chamomile), Cyperaceae (sedges), *Polygonum* sp. (knotgrass) and *Rumex* sp. (dock). Mineralised remains included Brassicaceae (mustard family) and *Sambucus* sp. (elder) seeds. Terrestrial molluscs and fish scales were also recorded. The plant remains from deposit 846 included seeds of *Fumaria* sp. (fumitory), *Veronica hederifolia (*ivy-leaved speedwell), Poaceae (grasses, including *Bromus* sp. (brome)), Chenopodiaceae (goosefoot), *Linum usitatissimum* (flax), vetches (including large seeded), docks, and sedges, tubers (including *Arrhenatherum elatius* ssp. *bulbosum* (onion couch grass)), and hazel nut shell. Mineralised elder and *Silene* sp. (campion) were also noted as were terrestrial molluscs, small animal bones and fish bones and scales. Preservation was variable for both assemblages and mature wood charcoal was present in small quantities.

1.3.3 Both the samples from pit 1002 were dominated by poorly-preserved charred cereal remains that included naked wheat, barley and large seeded oats. The assemblage in deposit 1013 was larger and also contained a culm node from an unidentified cereal species. Both deposits also produced charred and mineralised remains from other species. Charred remains from deposit 1013 included hazel nut shell and seeds of Asteraceae (daisy family, including stinking chamomile), bedstraw, vetches and docks. Mineralised seeds included elder and Lamiaceae (mint family). Deposit 1012 contained charred hazel nut shell, vetches, bedstraw, goosefoot, grasses and unidentified parenchymatic tissue fragments, as well as mineralised seeds from the mustard family (tentatively identified due to poor preservation). Terrestrial molluscs, small animal bones, fish bones and scales and mineralised insect remains were recorded in both deposits. Mature wood charcoal was present in small quantities with roundwood noted in deposit 1013.

1.4 Discussion

1.4.1 The nature and preservation of the environmental evidence retrieved from the samples, particularly the presence of fish scales and bones, insects, and mineralised plant remains, suggest some degree of anaerobic conditions, and together with the presence of charred plant remains and wood charcoal, is consistent with the interpretation of the deposits as middens with domestic waste originating from different consumption activities.

1.4.2 The charred remains of cereals (barley, wheat and possibly oats) and other domestic plants, such as broad bean and flax, are indicative of a standard consumption and there are no elements particularly suggestive of access to urban products such as high-status foods (i.e. exotic products). The presence in the assemblage of cereal chaff (culm nodes and bases, rachis segments and awns) and wild plant seeds, potential weeds from agricultural fields, indicates that some of the stages of crop-processing took place on the settlement, these activities being characteristic of a rural settlement. Some of the potential weeds, such as stinking chamomile, an archaeophyte introduced in the Iron Age, points to the cultivation of local light soils over chalk. Hazelnut and elder remains indicate the exploitation of hedgerow or woodland edge resources.

1.4.3 The assessment has recorded the presence of insects, small animal bones and fish remains, which are likely to provide information on the aquatic resources exploited as well as on the sanitary conditions on site and the existence of domestic pests.

1.4.4 The environmental remains in the samples have potential for full quantification and interpretation to further inform on the nature of the settlement, its environment and local resource exploitation practices. The presence of mineralised matter in the flots warrants the examination of the fine residues for full extraction of remains that may not have floated. Thus the taxonomic list provided in the assessment below is provisional and cannot be considered complete until full analysis has been undertaken. For the analysis, all macrofossils will be extracted from the <5.6mm residues and the flot. The analysis will involve the full quantification of the remains and their taphonomic assessment. Once extracted, the residues are recommended for discard.

1.4.5 The analysis of the wood charcoal could provide some information on the species composition and management of the local woodland resources but on account of the low quantities of charcoal recovered, the analysis of these samples is not considered to be able to provide significant data.

1.4.6 The remains of terrestrial molluscs could also have some palaeoenvironmental value but due to the nature of the deposits as mixed midden, their value is hardly significant, particularly as the assemblage is dominated by burrowing snails which may be modern intrusions.

1.5 Task list

1.5.1 The following tasks are proposed as a follow up on this assessment, with costs provided by separate email.

Table 1: Task list table

Task ID	Task
1	Extraction of Charred Plants and Wood Charcoal (4 samples)
2	Analysis of Charred Plant Remains (4 samples)
3	Analysis of small animal and fish bones
4	Overview and Palaeo-environmental Summary
5	Environmental Management

Table 2: Assessment of the macrofossil environmental evidence

Feature	Context	Sample	Vol (l)	Flot (ml)	Bioturbation proxies	Grain	Chaff	Cereal Notes	Other	Other Notes	Charcoal > 2mm (ml)	Charcoal	Other
804	837	1	20	60	5%, A, E, I, *Cecilioides acicula* (A*)	A***	C	*Triticum aestivum/turgidum*, *Hordeum vulgare*, *Avena* sp. (large seeded), Triticeae culm node and base	A	**Charred** - Vicieae (inc. cf. *Vicia faba*), *Corylus avellana*, *Malva* sp., *Galium* sp., *Anthemis cotula*, Cyperaceae, *Polygonum* sp., *Rumex* sp. **Mineralised** - (C) Brassicaceae, *Sambucus* sp. **Charred** - Poaceae (inc. *Bromus* sp.), *Corylus avellana*, Vicieae (inc. large seeded), *Rumex* sp., Cyperaceae, *Fumaria* sp., *Veronica hederifolia*, *Anthemis cotula*, Chenopodiaceae, *Linum usitatissimum*, tubers (inc. *Arrhenatherum elatius* ssp. *bulbosum*). **Mineralised** - (C) *Silene* sp., *Sambucus* sp. **Charred** - *Corylus avelana*, Vicieae, *Galium* sp., Chenopodiaceae, indet. parenchymatic tissue, Poaceae. **Mineralised** (C) - cf. Brassicaceae **Charred** - *Anthemis cotula*, *Corylus avellana*, Asteraceae, *Galium* sp., Vicieae, *Rumex* sp. **Mineralised** (C) - *Sambucus* sp., Lamiaceae	10	Mature	Moll-t, fish scale
804	846	2	40	110	1%, B, E, I, *Cecilioides acicula* (A*)	A***	B	*Triticum aestivum/turgidum* grains and rachis internodes, *Hordeum vulgare* grains, *Avena* sp. grains (large seeded), Triticeae awns	A		15	Mature	Moll-t, Sab, fis bone and scales
1002	1012	3	40	100	20%, B, E, I *Cecilioides acicula* (A*)	A*	-	*Triticum aestivum/turgidum*, *Hordeum vulgare*, cf. *Avena* sp. (large seeded)	A		5	Mature	Moll-t, Sab, fis scale, Insects (mineralised)
1002	1013	4	40	60	20%, A, E, I *Cecilioides acicula* (A*)	A**	C	*Triticum aestivum/turgidum*, *Hordeum vulgare*, *Avena* sp. (large seeded), Triticeae culm node	A		15	Mature + roundwood	Moll-t, Sab/f, industrial waste, insects (mineralised)

Key: Scale of abundance: A*** = exceptional, A** = 100+, A* = 30-99, A = >10, B = 9-5, C = <5; Bioturbation proxies: Roots (%), Uncharred seeds (scale of abundance), F = mycorrhiza earthworm eggs, I = insects; Sab = small animal bones, Moll-t = terrestrial molluscs.

2019 Assessment of Environmental Evidence (210431.2)

1.1 Introduction

The flots from four bulk sediment samples were processed and assessed for environmental evidence. The samples have provided well-preserved assemblages of environmental remains, comprising plant macrofossils preserved by carbonisation, wood charcoal, terrestrial molluscs and small animal bones. Some of this evidence, such as the plant macrofossils, merits further analysis to inform about the activities undertook in the settlement and resources exploited.

1.2 Materials and Methods

Four bulk sediment samples were taken from deposits of possible medieval chronology and were processed for the recovery and assessment of the environmental evidence. The samples were on average 27 litres in volume and were processed by standard flotation methods on a Siraf-type flotation tank; the flot retained on a 0.25 mm mesh, residues fractionated into 4 mm and 0.25 mm fractions. The coarse fractions of the residues (>4 mm) were sorted by eye and discarded. The fine fractions of the residues have been retained for further conditional extraction and analysis, based on the results of this assessment. The flots were scanned using a stereo incident light microscopy (Leica MS5 microscope) at magnifications of up to x40 for the identification of environmental remains. The presence of bioturbation indicators and the preservation and nature of the environmental evidence (plant remains and wood charcoal, molluscs, animal bone and insects), was recorded. Preliminary identifications of dominant or important taxa are noted below, following the nomenclature of Stace (1997) for wild plants, and traditional nomenclature, as provided by Zohary and Hopf (2000), for cereals. Abundance of remains is qualitatively quantified (A*** = exceptional, A** = 100+, A* = 30-99, A = >10, B = 9-5, C = <5) as an estimation of the minimum number of individuals. Mollusc nomenclature follows Anderson (2005).

1.3 Results

1.3.1. The flots were generally small moderate to large (Table 3: Assessment of the macrofossil environmental evidence) and there were low numbers of roots and modern seeds and moderate numbers of the burrowing snail *Cecilioides acicula* that may be indicative of some stratigraphic movement and the low possibility of contamination by later intrusive elements. Preservation of plant remains was predominantly by charring with a very small amount of possible mineralised material recovered from one sample, both comprised varying degrees of preservation. Wood charcoal was noted in generally small to moderate quantities and was from mature wood. All samples contained the remains of terrestrial molluscs and small animal bones. No other environmental evidence was preserved.

1.3.2. The charred plant remains in all four samples were dominated by cereal grains. The preservation of the barley grains in one of the samples was sufficiently good to identify the dense-eared or six-rowed variety of barley. The identification of the naked wheat species in two of the samples was possible due to the preservation of chaff (rachis nodes). Wheat grains morphologically resembling spelt were identified in one of the samples. The cultivation of oats at the site in not possibly ascertained in the absence of diagnostic chaff (lemma bases).

1.3.3. The sample from Trench 11 (deposit 1103) produced grains of *Triticum aestivum/turgidum* (naked wheat) and *Hordeum vulgare* (barley). Other taxa present included charred *Corylus avellana* (hazel) nut shell fragments and seeds of Poaceae (grasses), Vicieae (vetches), Cyperaceae (sedges) and *Sherardia arvensis* (field madder). Small quantities of uncharred, possibly mineralised seeds of *Sambucus* sp. (elder) were also noted.

1.3.4. The sample from Trench 15 (deposit 1503) was dominated by *Triticum aestivum* (bread wheat) but also contained grains and rachis nodes of *Hordeum vulgare* var. *hexastichum* (dense-eared or

six-rowed barley) and tentatively identified *Triticum* cf. *spelta* (spelt) grains. Also present were hazel nut shell fragments, and seeds of *Avena* sp. (oats) and vetches.

1.3.5. Trench 13 produced two samples. Deposit 1309 contained grains and rachis nodes of bread wheat, barley grains and *Secale cereale* (rye) rachis nodes. A moderately rich group of other taxa included Vicieae (including *Vicia faba* (broad bean) and *Pisum sativum* (pea)), grasses (including oats), hazel nut shell fragments, sedges, and Asteraceae (the daisy family including *Anthemis cotula* (stinking chamomile) and *Centaurea* sp. (thistle/cornflower)). This deposit also contained a moderate amount of mature wood charcoal. Deposit 1308 was dominated by grains of naked wheat but also contained barley and tentatively identified rye grains. Other taxa present were oats, hazel nut shell fragments, *Fumaria* sp. (fumitory), stinking chamomile (tentatively identified), Chenopodiaceae (goosefoot) and *Odontites vernus* (red bartsia).

1.4 Discussion

1.4.1. The assessment of the samples suggests the preservation of the environmental evidence in the area is positive, particularly favourable for charred plant remains and terrestrial molluscs, with smaller amounts of small animal bones and wood charcoal. An uncharred, potentially mineralised, seed was identified in one of the samples.

1.4.2. A large proportion of the terrestrial molluscs were identified as *Cecilioides acicula*, a burrowing snail, therefore intrusive and of no palaeoenvironmental significance. The most significant evidence in the samples is that of the charred plant remains. The composition of this charred plant remain assemblage is consistent with domestic waste originating from different processing activities in a rural settlement.

1.4.3. The nature of this assemblage is notably different from that previously obtained as part of OSLP18, where important mineralised deposits comprising fish scales and bones, insects, and plant remains, suggested cess or midden formation processes, often associated to urbanised settlements. However, similarly to the plant remains preliminary identified in OSLP18, all resources exploited is OSLP19 could have been cultivated locally and no evidence of exotic or luxurious products was observed.

1.4.4. The assemblage suggests the cultivation and preparation of food based on cereals (barley, bread wheat, rye; and, possibly, oats and spelt) and pulses, such as broad bean and garden pea. Differences across the samples may correspond to chronological changes or different processing areas or households. For example, wheat grains tentatively identified as spelt were present in one of the samples; the cultivation of spelt is often associated to late prehistoric or Roman chronologies; but bread wheat, rye and oats become widespread crops in Saxon or medieval times. The presence of both types of wheat in a sample could suggest a transitional agricultural period.

1.4.5. The presence of cereal chaff (rachis nodes and segments) and wild plant seeds that could have grown as weeds (stinking chamomile, possible cornflower) in agricultural fields, indicates that some early stages of crop-processing (threshing) took place on the settlement, therefore suggesting that agricultural fields may have been nearby. Stinking chamomile points to the cultivation of light soils over chalk; and sedges, red bartsia, fumitory, and possible knapweed/star-thistle are indicative of grassland. Hazel nutshell remains indicate the exploitation of hedgerow or woodland edge resources.

1.5 Recommendations

1.5.1. Some of the environmental remains in the samples have potential for full quantification and interpretation to further inform on the nature of the settlement, its environment and local resource exploitation practices. The specific analysis recommendations for the different types of environmental materials are given below. Very little information exists for deposits of this kind in the area, and any information obtained from these samples will provide an interesting comparison with

that existing for other nearby towns such as Salisbury or Wilton. Contextual information is necessary for the full analysis of these samples.

1.5.2. The charred plant remains in all four OSLP19 samples is considered to warrant further analysis. This would provide complementary information to that provided by the four samples obtained in OSLP18, also recommended for analysis.

1.5.3. The analysis of the wood charcoal could provide some information on the species composition and management of the local wood resources; however, only one sample in OSLP19 has significative quantities of charcoal and is therefore of little comparative value.

1.5.4. The terrestrial molluscs are also considered of little significance in samples from both OSLP18 and OSLP19, as the assemblage is dominated by burrowing snails likely to be modern intrusions.

1.5.5. No analysis of small animal or fish bones is suggested on the OSLP19 samples, due to the small number of remains recovered. However, these remains were significant in the four samples from OSLP18, which were recommended for further analysis.

1.5.6. For the analysis, macrofossils will be extracted from the <5.6mm residues and the flot. The analysis will involve the full quantification of the remains and their taphonomic assessment. Once extracted, the residues that have so far been retained are recommended for discard, whilst the flots and extracted materials are recommended for retention and deposition in suitable receiving museum.

1.6 Bibliography

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Table 3: Assessment of the macrofossil environmental evidence

Context	Sample	Vol (l)	Flot (ml)	Bioturbation proxies	Grain	Chaff	Cereal Notes	Charred Other	Charred Other Notes	Charcoal >2 mm	Other	Preservation
1103	OSLP 19_1	30	225	80%, C, E, I, *Cecilioides acicula* (A*)	A**	-	*Hordeum vulgare* grains (A), *Triticum aestivum/turgidum* grains (A*)	B	**Charred** - *Corylus avellana,* Poaceae, *Sherardia arvensis,* Cyperaceae, Vicieae **Uncharred, mineralised?** (C) - *Sambucus* sp.	3 ml, Mature	Moll-t (A), Sab (C)	Heterogeneous.
1503	OSLP 19_2	28	500	80%, C, E, I, *Cecilioides acicula* (A*)	A**	C	*Hordeum vulgare* var. *hexastichum* grains (A), *Triticum aestivum* grains (A*) and rachis nodes, *Triticum* cf. *spelta* grains	B	*Avena* sp., *Corylus avellana,* Vicieae	4 ml, Mature	Moll-t (A*), Sab (C)	Heterogeneous.
1308	OSLP 19_3	24	100	15%, C, I *Cecilioides acicula* (A*)	A**	-	*Hordeum vulgare* grains (A), *Triticum aestivum/turgidum* grains (A*), cf. *Secale cereale* grains (C)	B	*Avena* sp., *Corylus avellana, Fumaria* sp., *Anthemis* cf. *cotula*, Chenopodiaceae, *Odontites vernus*	4 ml, Mature	Moll-t (A), Sab (C)	Heterogeneous.
1309	OSLP 19_4	24	160	<1%, C, E *Cecilioides acicula* (A*)	A**	C	*Hordeum vulgare* grains (A), *Triticum aestivum* grains (A*) and rachis nodes (C), *Secale cereale* rachis nodes (C)	A*	Vicieae (inc. *Vicia faba* and *Pisum sativum*), Poaceae (inc. *Avena* sp), *Corylus avellana,* Asteraceae (inc. *Anthemis cotula* and *Centaurea* sp.), Cyperaceae	50 ml, Mature	Moll-t (A*), Sab (C)	Heterogeneous.

Key: Scale of abundance: A** = 100+, A* = 30-99, A = >10, B = 9-5, C = <5; Bioturbation proxies: Roots (%), Uncharred seeds (scale of abundance), E = earthworm eggs, I = insects; Sab = small animal bones, Moll-t = terrestrial molluscs.