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John Powell with contributions by Phil Andrews, Lorraine Mepham, L Higbee, R H Seager Smith, Imogen Wood and Sarah F Wyles

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ROMANO-BRITISH AND MEDIEVAL SETTLEMENT IN THE VICINITY OF BRENT KNOLL HILLFORT, SOMERSET

JOHN POWELL

with contributions by Phil Andrews, Elina Brook, Lorraine Mepham, L. Higbee, R. H. Seager Smith, Imogen Wood and Sarah F. Wyles

SUMMARY

Excavations carried out in 2013 along the route of a water main diversion between Brent Knoll and East Brent produced evidence of Iron Age, Romano-British and medieval to post-medieval activity. On the eastern lower slopes of Brent Knoll, a large linear feature of Iron Age date probably represents a hollow-way leading up to the hillfort. Romano-British rural settlement in the form of a rectilinear field system, a D-shaped enclosure and a large land division or boundary ditch was concentrated at the lower, northern end of the route, whilst a cluster of medieval ditches and gullies, dated to the 11th-13th century, were recorded towards the southern end. In addition, evidence for medieval to post-medieval ridge and furrow cultivation was visible as earthworks in the majority of fields along the route.

INTRODUCTION

The construction of a new water main by Bristol Water Plc between Brent Knoll (NGR ST 34032 49828) and East Brent (ST 34849 51739) within the Sedgemoor District of Somerset provided the opportunity to excavate archaeological features in close proximity to Brent Knoll hillfort (Fig. 1). The pipeline route crosses the lower eastern slopes of Brent Knoll hill, this section extending for approximately 2.2km, predominantly across farmland consisting of pasture and arable fields. This 2.2km formed part of a wider water pipe scheme, which ran from Brent Knoll to Cheddar, the remainder of the route running north from East Brent was directionally drilled and therefore did not require archaeological monitoring. Pipeline construction in this section of the route involved the

stripping of a 10m wide easement, within which, ten areas of archaeological interest had been previously identified through geophysical survey.

The proposed pipeline route lay 0.5km to the east of the Iron Age hillfort of Brent Knoll within an area of known Romano-British activity. This was highlighted in an archaeological desk-based assessment (Wessex Archaeology 2013a), which was followed by detailed gradiometer survey (Wessex Archaeology 2013b) and subsequent excavation (Wessex Archaeology 2013c). These identified archaeological features date from the Iron Age to the post-medieval periods reflecting rural settlement over two millennia.

Topography and geology

The southern and northern parts of the route are situated within the Somerset Levels, at an elevation of approximately 5m above Ordnance Datum (OD). The central section lies on the east facing slopes of Brent Knoll hill at an elevation of up to 20m OD, the summit of the hillfort being at 139m OD. The underlying geology of the southern and northern sections of the route comprises Jurassic mudstone of Charmouth Mudstone Formation, which is overlain by tidal flat deposits of clay, silt and sand. Within the central part of the route, the recorded geological deposits include Jurassic mudstone of the Dyrham and Charmouth Formations (British Geological Survey Online Viewer).

Archaeological background

The low-lying Somerset Levels have been subject to continual cycles of sea regression and transgression throughout prehistory. However, from the Mesolithic to the Iron Age they are known to have been utilised as seasonal pasture (Bell 2000). Evidence of Bronze Age activity in the form of worked flints and a

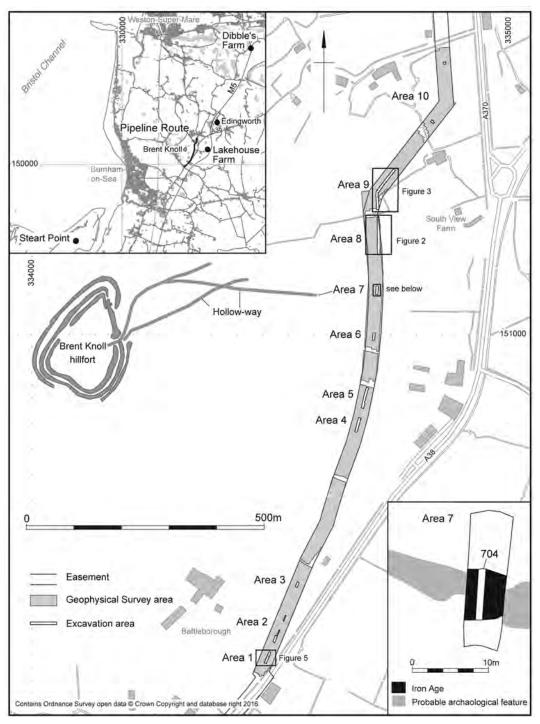


Fig. 1 Site location plan, with inset of Iron Age hollow-way in Area 7

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possible barrow has been recorded at Highbridge and Burnham-on-Sea to the south of the pipeline route (Gathercole 2002). In the Iron Age, Brent Knoll became a focus of activity and a large (1.6 ha) oval univallate hillfort was constructed (see Fig. 1), which served as a centre of redistribution for local communities. The hillfort apparently comprises an outer ditch and bank, with remains of a second bank, the defences strengthened in places by scarping of the slope. A hollow-way or trackway leads into the hillfort from the north-east and is visible as an earthwork crossing the hillside, with at least two branches of this recorded. Although one or more of these are likely to be later quarry access tracks, they may follow the original approach to the hillfort. Earthworks at the entrance are similar to those recorded at other hillforts in Somerset, such as Cadbury Congresbury (Rahtz et al. 1992), and may represent gatehouses.

During the Romano-British period, the area between the former River Siger to the south of the pipeline route and the River Axe to the north was subject to land reclamation, and there is evidence for scattered settlements and agricultural fields within the pipeline route and in the wider surroundings (Rippon 2000). A number of wealthy rural settlements of Romano-British date have been recorded between the palaeo-river Siger and the River Axe and four sites were recorded in the vicinity during construction of the M5 motorway, 1.6km to the east of the pipeline route (Rippon 1997; Dawson et al. 2001). The most substantial site investigated was at Lakehouse Farm, 700m east of Brent Knoll, where a possible villa is indicated by a range of building materials including dressed stone blocks and slabs, sandstone roofing tiles, ceramic roof tiles, box-flue and hypocaust tiles, painted wall plaster and window glass. The building remains extended beneath the motorway, and associated pottery indicates a 1st-4th century date range (Dawson et al. 2001, 43). The village of East Brent (250m to the north-west of the route) was established in an area of earlier Iron Age and Romano-British occupation, the Romano-British evidence here included further building material and pottery, while a little further away at Edingworth, approximately 1km to the northeast of the route, was a series of ditches containing pottery of possibly 2nd-3rd century date (ibid.). Finally, excavation during the 19th century within the hillfort on Brent Knoll recorded evidence of a Roman building, which has been interpreted as a possible temple site (Rippon 1997).

Within the village of Brent Knoll, excavations have recorded a small assemblage of residual late Roman pottery, a series of ditches and gullies radiocarbon dated to the 7th–10th centuries AD, a Saxo-Norman sunken-floored building and a 12th century boundary ditch (Young 2008).

Medieval strip lynchets and field banks immediately below the hillfort are particularly evident to the north and south as well as the west. More than one phase is represented, these agricultural earthworks in places cut by probable late medieval–post-medieval limestone quarries.

EXCAVATION RESULTS

Given the potential for archaeological features along the route, in part demonstrated by the geophysical survey (Wessex Archaeology 2013b; the principal results are outlined below and shown in Figs 1–4), ten areas were identified for detailed archaeological mitigation and were subject to strip-map-and-record excavation (Fig. 1). Of these sites, Areas 1, 7, 8 and 9 produced significant archaeological remains. Area 1 (centred on ST 34495 50320) was located east of Battleborough, on the low-lying fringes of the Somerset Levels, at a height of approximately 5m OD. The geophysical survey in Area 1 was not as successful at identifying archaeological features, which was probably related to the underlying alluvial soils. Topsoil and subsoil overlay the natural geology, recorded at approximately 0.50m below ground level, consisting of mid-blue grey silty clay with green mottles. Areas 7, 8 and 9 were located on the lower eastern slopes of Brent Knoll hill, to the west of South View Farm (between ST 34725 51092 and ST 34728 51302) at a height of 18m OD. The topsoil and subsoil was between 0.25m and 0.50m deep and the underlying geology was a mid-yellowbrown clay or sandy clay with common sub-angular sandstone inclusions.

Iron Age

In Area 7 was a wide, east to west aligned feature, 704, probably a hollow-way (Fig. 1). Feature 704 had moderate to steep, concave sides and measured approximately 6.7m wide. It was handexcavated to a depth of 1.3m, but it was not possible to fully excavate the feature due to the rapid ingress of ground water; augering showed it to be approximately 1.6m deep. Feature 704 probably silted up fairly slowly and contained four naturally deposited primary and secondary fills. Middle–

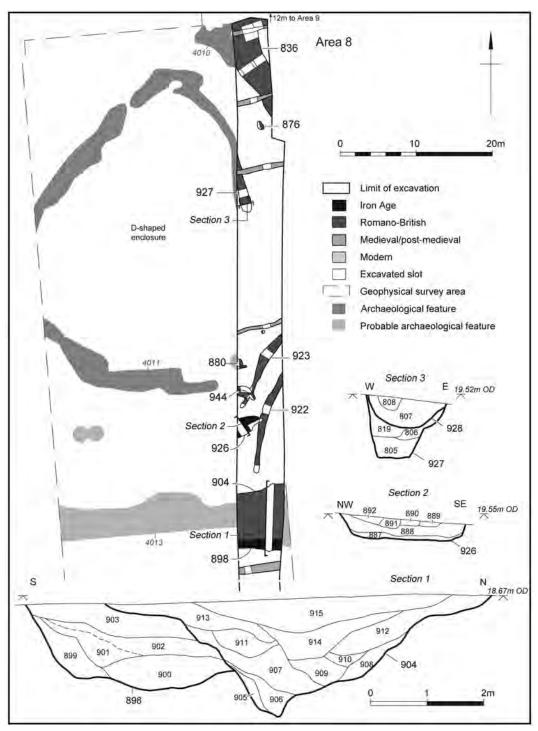


Fig. 2 Plan of prehistoric and Roman-British features in Area 8

Late Iron Age pottery came from the lower fills and Romano-British pottery from the uppermost fill, whilst some animal bone, fired clay and fuel ash slag were also recovered. The lowest visible fill, deposit 708, had the distinctive blue grey colour characteristic of gleyed deposits. Moderate quantities of charred cereal remains and a small amount of weed seeds were recovered from one of the fills.

Feature 704 probably represents the remains of a silted-up hollow-way which led to the entrance of the Brent Knoll hillfort to the east. Evidence from earthworks and aerial photographs suggest the hollow-way began at least 50m to the east of Area 7, continuing westwards up the slope of Brent Knoll before gradually curving to the south-west where it enters the hillfort.

A large Iron Age ditch (898), which was aligned east-west and corresponded with geophysical anomaly 4013, was recorded in Area 8 (Fig. 2). The ditch had steep, concave sides and a concave base, and measured 3m wide and 1.5m deep. Its northern edge was cut by Romano-British ditch 904. Ditch 898 contained five fills, the primary fill consisting of grey brown silty clay, probably eroded from the southern edge of the ditch. Above this was a deposit of dark brown grey silty clay (900), which contained Middle-Late Iron Age pottery, animal bone and a piece of fired clay oven/hearth furniture or loomweight, along with a number of sub-angular sandstone fragments. This deposit had probably formed through a mixture of natural silting and discrete dumps of domestic material into the ditch, which included a similar charred cereal and weed seed assemblage to that in hollow-way 704. The remainder of the fill sequence consisted largely of naturally silted secondary deposits, formed after the initial stabilisation of the ditch's profile. Ditch 898 probably represents a boundary associated with the hillfort on Brent Knoll, defining land to the north and south and perhaps running between the hillfort and the Levels to the east.

Feature 926, perhaps a shallow pit, a short distance to the north of ditch 898, was partially exposed along the western edge of the area (Fig. 2). Feature 926 had a wide, flat-bottomed profile (0.25m deep) and its lower fill contained three groups of fragments from a perforated oven plate of probable Iron Age type (Object Numbers (ONs) 3, 4 and 5). The presence of these fragments, along with that from ditch 898, suggests that the feature may be related to nearby settlement.

Romano-British

Romano-British activity was recorded within Areas 8 and 9 (Figs 2 and 3) and it is probable that the main area of settlement lies to the west of the route. At the southern end of Area 8, a substantial east to west aligned ditch (904) was cut into the northern edge of Iron Age ditch 898. Ditch 904 measured 6.8m wide and 2.1m deep, and had an asymmetrical V-shaped profile with steep, somewhat irregular sides (Fig. 2). The lower fills of the ditch were derived from natural erosion of the feature's edges. Above these, deposit 909, a dark brownish grey silty clay, contained some middle-late Romano-British pottery including several large and unabraded sherds, fired clay and large sub-angular limestone and sandstone inclusions, perhaps building debris. This deposit may have been deliberately dumped into the partially silted-up ditch, which also included a moderately rich assemblage of charred plant remains dominated by cereals. The upper fills of the ditch contained both Iron Age and Romano-British pottery, fired clay and animal bone, and probably accumulated relatively slowly, largely through natural silting, once the ditch had fallen out of use.

Immediately to the north of ditch 904 were two parallel, north-east to south-west aligned ditches (923 and 922) that may represent part of an enclosure. Both ditches were curvilinear in plan with concave profiles; they measured between 1m and 1.35m wide and were up to 0.35m deep. Romano-British pottery and animal bone were recovered from their fills; the pottery is mainly undiagnostic but that from fill 811 (in ditch 923) indicates an early Romano-British date for this deposit.

A terminal of the D-shaped enclosure (4011), identified by geophysical survey was recorded towards the northern end of Area 8 (Fig. 2). Ditch 927 was 1.4m wide and 0.65m deep with a U-shaped profile. The terminal was rounded in plan, but at 1.1m deep was substantially deeper than the remainder of the ditch. The sides here were steeply sloping to a flat base and it appears that a deeper pit had been dug at the ditch terminal, though this seems unlikely to have been a waterhole. The sequence of deposits within this feature indicates that the pit was contemporary with the ditch and had been cut as a single event, and both the ditch and the pit had then been allowed to silt up naturally, with pottery from the bottom of the pit being exclusively of early Romano-British date. The partially infilled ditch was subsequently re-cut, which re-defined the

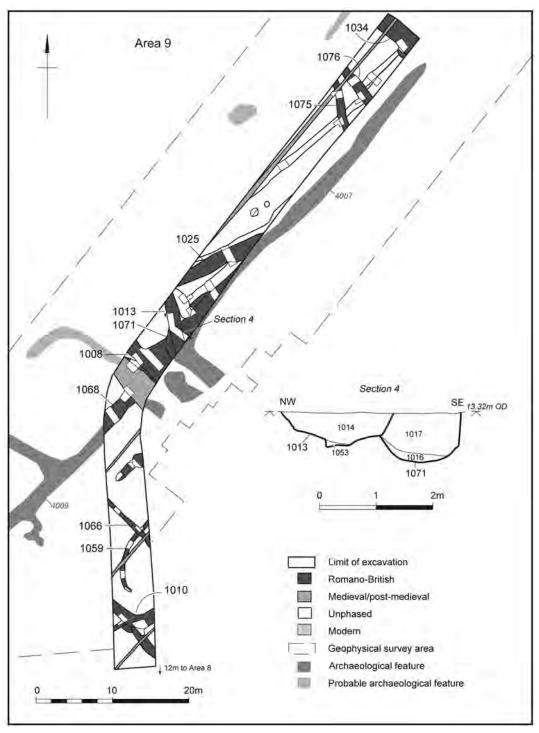


Fig. 3 Plan of Romano-British features in Area 9

D-shaped enclosure, at least in this area. The re-cut, 928, was filled with a deliberate backfill consisting of dark brownish grey silty clay containing a large quantity of late Romano-British pottery, fired clay and animal bone. These deposits may indicate abandonment of the D-shaped enclosure and any associated settlement.

At the northern end of Area 8, a sequence of ditches (836) crossed on a north-west to south-east alignment. These correspond with two geophysical anomalies (4009 and 4010) located to the north-west and represent a continuation of the field/enclosure system partially exposed within Area 9 to the north (Fig. 3). Three ditches were evident in the excavated section and are considered to represent multiple phases of the same boundary. The latest ditch in the sequence contained 2nd–4th-century Romano-British pottery, animal bone and fired clay.

An apparently isolated, sub-circular pit (880) was partially exposed below the western edge of

Area 8. The pit, 0.5m deep, contained several fills from which Romano-British pottery was recovered and was also notable for a relatively rich charred plant remains assemblage which may derive from malting. The remains of a possible oven (876) were recorded towards the northern end of the area, but the feature only survived to a depth of 0.04m and produced just two, abraded sherds of Romano-British pottery.

The rectilinear field/enclosure system recorded during the geophysical survey (features 4007 and 4009) corresponded closely with some of the excavated archaeological features in Area 9 (Fig. 3). Ditches 1068 and 1071, aligned north-east to southwest, were up to 2.1m wide and 1.1m deep, were U-shaped and had steep concave sides and concave bases (Fig. 4). The upper fills consisted of dark to mid-brownish grey silty clay loams containing late Romano-British pottery, animal bone, fired clay, a small fragment of shale bracelet and a few



Fig. 4 Excavation of Romano-British ditches in Area 9 (looking towards lower ground to north-east)

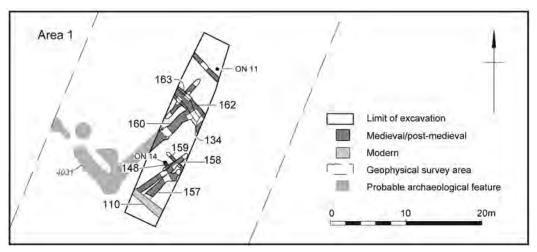


Fig. 5 Plan of medieval features in Area 1

metal finds (including a coin and 23 dome-headed nails, perhaps furniture nails rather than hobnails). The lower fill of ditch 1071 was mid-grey silty clay which is thought to have formed in standing water within the base of the ditch. High numbers of cereal remains, including barley and hulled wheat, and weed seeds were recovered from this deposit and are indicative of nearby settlement and field margins.

The geophysical survey indicated that ditches 1068 and 1071 both turned through 90°, to a northwest to south-east alignment, forming a possible 6m-wide entrance just beyond the south-eastern edge of Area 9 (Fig. 3). A shallow feature (1008) between the two ditches may represent a hollowway formed in the entrance area, all three of which were shown to continue to the south-east by the geophysical results, perhaps defining a trackway.

Shallow, curvilinear gully 1059 lay within the southern half of Area 9 and may represent the truncated remains of a roundhouse drip gully, with a projected maximum diameter of approximately 12m. The gully, 0.55m wide and up to 0.2m deep, had a rounded terminal on the south-western side but no opposing terminal was exposed within the stripped area. Two sherds of Romano-British pottery were recovered from the gully.

Towards the southern end of Area 9, late Romano-British ditches 1010 and 1066 probably represent further parts of a field/enclosure system. Ditch 1010 formed the south-western corner of an enclosure and had steep concave sides and a flat base. It was cut through an earlier gully, pit and ditch, probably also of Romano-British date, and contained a large socketed knife or cleaver. Ditch 1066 cut curvilinear gully 1059, and was aligned north-west to south-east and had a shallow, concave profile; this ditch may represent an internal division within the field system.

At the north-eastern limit of Area 9, three broadly parallel ditches (1034, 1075 and 1076) represent further elements of the rectilinear field/enclosure system. Ditch 1034 extended beyond the excavated area, and had a U-shaped profile; it contained late Romano-British pottery. Ditches 1075 and 1076 had similar U-shaped profiles (0.55m deep); the fills produced Romano-British pottery.

A later phase of Romano-British activity was represented by ditches 1013 and 1025 which cut ditch 1071. The ditches appeared to form the northern corner of a rectilinear enclosure on a slightly different orientation which extended to the south of the stripped area. Ditches 1013 and 1025 had steep, concave sides and flat bases and were up to 0.75m deep; both had filled naturally and contained late Romano-British pottery, with no finds to indicate a post-Roman date.

Medieval

A sequence of intercutting medieval ditches and gullies was recorded in Area 1 (Fig. 5, Fig. 8, 1 and 2). A relatively large assemblage of 12th- to 13th-

century pottery was recovered and it is possible that the site of a medieval settlement is located close to the excavated area. The features mainly comprised ditches and gullies forming part of a rectilinear field system; stratigraphic relationships existed between the various ditches but they were probably broadly contemporary and indicate successive phases of enclosure/drainage. A sequence of shallow (0.3m deep) gullies (157, 158 and 159) with U-shaped profiles produced medieval pottery and animal bone. Approximately 8m to the north was a further group of similarly aligned ditches and gullies that contained moderate assemblage of medieval pottery. Ditches 160 and 163 formed part of a rectilinear enclosure corresponding with geophysical anomaly 4031. These ditches had wide, U-shaped profiles and were filled with naturally silted deposits containing medieval pottery and animal bone. Ditch 163 had been re-cut by shallow gully 162 and both were subsequently cut by pit 134, which contained medieval and a single sherd of post-medieval pottery.

Two complete or almost complete 13th-century pottery vessels (ON 11 and 14) were recovered (Fig. 5). One, in fragmentary condition, was found inverted in shallow pit 148 (ON 14); the other (ON 11) had apparently been 'set' into the natural alluvium (context 114), in an act of deliberate deposition, as no cut was visible.

Below ground remains of ridge and furrow cultivation were recorded along the entire route in the form of evenly spaced ditches and gullies; although undated these features have been phased to the medieval to post-medieval period. Ridge and furrow cultivation was visible across the surface of the adjacent fields as low earthworks and in the results of the geophysical survey (Wessex Archaeology 2013b).

POTTERY

Prehistoric

by Elina Brook and R. H. Seager Smith

Introduction

The later prehistoric pottery assemblage (118 sherds, 1057g) is predominantly dated to the Middle/Late Iron Age. The majority of sherds were recovered from ditches and gullies within Areas 7 and 8 (96% by sherd count), with a handful of sherds from Area 9 (4%). Ten features contained

prehistoric ceramics, but just two (hollow-way 704 and ditch 898) contained more than 25 sherds, whilst seven features produced five or less. Most sherds are small to medium in size, reflected by a mean sherd weight of 9.0g, and a significant quantity had suffered severe surface abrasion and edge damage. Relatively few featured sherds are present and, as a result, many pieces could only be tentatively dated on their fabric and general appearance alone.

Methodology

The collection has been subjected to detailed fabric and form analysis, in accordance with the current guidelines for later prehistoric pottery (Morris 1994; Prehistoric Ceramic Research Group (PCRG) 2010). Each sherd was examined using a x10 power binocular microscope and assigned to a fabric group based on the most frequent or most obvious inclusion type. Where possible, featured sherds were assigned a form type and other variables (e.g. surface treatment, decoration, firing and evidence of use) were also recorded.

Fabrics

Thirteen fabric groups were identified. The breakdown of ceramics by fabric group is given in Table 1 with detailed fabric descriptions in Appendix 1.

The calcareous fabrics, containing varying proportions of limestone (fabrics C1 and C3-C5) and calcite (fabrics C2 and C6), comprise the majority of the assemblage (Table 1). Similar fabrics are known from Whitegate Farm, Bleadon (Woodward 2007, 43, fabrics 1 and 2) and Dibble's Farm, Christon (situated just 8km to the northwest of Cheddar), where they dominate the assemblage (Morris 1988, fabrics 1-4 and 10-12, table 1). Fabric C3 is comparable to a Palaeozoic limestone-tempered ware recorded within the assemblage from the Churchdown to Coombe Hill water pipeline and is thought to originate from the Woolhope Hills in Gloucestershire (Timby 2016, fabric MAL RE B). The limestone-tempered ware, C4, is similar to a calcareous fabric recorded from Steart Point (Brook 2017; fabric C1).

Fabric code	No. of sherds	Weight (g)	% sherds	MSW (g)
Calcareous			1	
C1	27	214	22.9	7.9
C2	2	44	1.7	22
C3	1	12	0.8	12
C4	8	58	6.8	7.3
C5	9	59	7.6	6.6
C6	18	123	15.3	6.8
Rock				
R1	16	78	13.6	4.9
R2	6	62	5.1	10.3
R3	3	86	2.5	28.7
R4	2	37	1.7	18.5
Quartz sand	· · ·			
Q1	15	137	12.7	9.1
Q2	9	109	7.6	12.1
Other				
I1	2	38	1.7	9.1
Total	118	1057	100	9.0

TABLE 1 – QUANTIFICATION OF PREHISTORIC POTTERY FABRIC TYPES BY NUMBER AND WEIGHT (G)

The rock-tempered wares contain a range of rock fragments such as sandstone (fabric R2) and redbrown argillaceous particles (fabric R1), whilst two plain body sherds were recorded in a very mixed fabric (R4) containing detrital fragments of rock, grog, sand and unidentifiable calcareous flecks. These are all probably derived from a variety of relatively local sources, a surmise broadly confirmed by petrographic (thin-section) analysis of fabric R1 by Dr Imogen Wood (see Appendix 2). This was not entirely successful, as the sample sherd was rather small and friable; the only minerals identifiable were heat-affected polycrystalline quartz and red sandstone. However, fabric R3, is similar to a distinctive rock-tempered ware that originated from the Malvern Hills (Timby 2016; fabric MAL RE A). A small quantity of sand (fabric Q1) and sand and grog-tempered (Q2) wares were also present, along with two sherds containing ironoxides and sand (fabric I1), which are also likely to be of local origin.

Forms

Nine rim forms were defined; the quantities recorded by fabric type are presented in Table 2. Most appear to be from jars in a range of sizes, although no complete profiles were present and the sherds were often broken at the shoulder or just below the rim. Only seven rims preserved more than 5% of the diameter.

Rim fragments that were not large enough to identify to a more specific type were placed in a general category (form R1). The earliest datable form was a very small fragment of an upright, flat-topped jar rim in fabric R1 from ditch 1067. It is possibly of Late Bronze Age/Early Iron Age date, but due to its abraded condition is thought to be residual. Bead rim jars were the most common (forms R2, R3, R5 and R7), varying in shape but including examples with slightly inturned (Fig. 6.1) and flat (Fig. 6.2) rims. Upright and necked jar/ bowl forms were also present (forms R4 and R6) (Fig. 6.3), including the two vessels from ditch 898

Vessel fo	orm	C1	C4	C6	Q1	Q2	R1	R2	Total
R1	Rim, uncertain form	1		1	1		1		4
R2	Bead rim, upright		4						4
R3	Bead rim, rounded	5						1	6
R4	Upright, necked				1			3	4
R5	Bead rim, inturned				1				1
R6	Upright, plain rim	1							1
R7	Bead rim, flat	3							3
R8	Rounded rim	1							1
R9	Triangular rim, flat					1			1
Total		11	4	1	3	1	1	4	25

TABLE 2 - PREHISTORIC POTTERY VESSEL FORMS BY FABRIC (NO. OF RIM SHERDS)

(Figs 6.4 and 6.5). Both are comparable to forms from Cadbury Castle (Woodward 2000, types JD3 or BD6), as are fragments of a large, probable storage jar with flattened, triangular bead rim (Fig. 6.6) from Romano-British ditch 904 (*ibid.*, 336, fig. 154, type JC4). One example of a rounded, slightly out-turned rim (form R8; Fig. 6.7) was found in ditch 904. Where, present, bases were flat. All these forms belong within the 2nd–1st centuries BC, perhaps continuing into the 1st century AD.

Surface treatments are limited to burnishing on the exterior of vessels, whilst just five sherds are decorated. These include a poorly preserved, residual Iron Age sherd in a limestone-tempered fabric (C1) from ditch 1071, which is decorated with multiple impressed dots. Four of the decorated sherds were found within ditch 898 (layer 900). One was a small sherd in a calcite-tempered fabric (C6), decorated with incised line and pendant ring-anddot motifs (Fig. 6.8). This may be from a Southwestern or Glastonbury-style ware vessel of the 2nd-1st centuries BC. Two sherds (sandy fabric Q1; rock-tempered fabric R2) had burnished diagonal lines at the shoulder/neck junction (Fig. 6.5), whilst the fourth sherd (sandy fabric Q1) had lattice decoration comparable with a 1st-century BC piece from Cadbury Castle (Alcock and Woodward 2000, fig. 55, K565, 12.1).

Sherds from a bead rim jar in a limestonetempered fabric (C4; hollow-way 704) display evidence of having been repaired in antiquity with an adhesive probably derived from birch bark tar (Fig. 6.9). This is currently the most westerly example of this type of repair, but increasing numbers of glue-repaired pots are now known from sites spread widely across southern Britain, extending from at least the Late Bronze Age/Early Iron Age (Seager Smith 2015, 222–5) through until the end of the Romano-British period (Marter Brown and Seager Smith 2012, 5). Other sherds display traces of sooting, mostly on the exterior surfaces, suggesting cooking or the preparation of foodstuffs or other materials.

Discussion

The small prehistoric pottery assemblage reflects the Middle/Late Iron Age ceramic traditions of the region. Some of the fabrics and forms find close parallels with those from Dibble's Farm, Christon (Morris 1988), Whitegate Farm, Bleadon (Woodward 2007), Cheddar Reservoir (Wessex Archaeology 2013d) and Steart Point (Higbee and Mepham forthcoming). Other sites slightly further afield that also contain comparable material include Huntworth (Mepham 2008) and Yeovilton (Seager Smith 2005). The presence of at least two non-local fabrics (R3 and C3) suggests limited access to wider networks of trade and exchange.

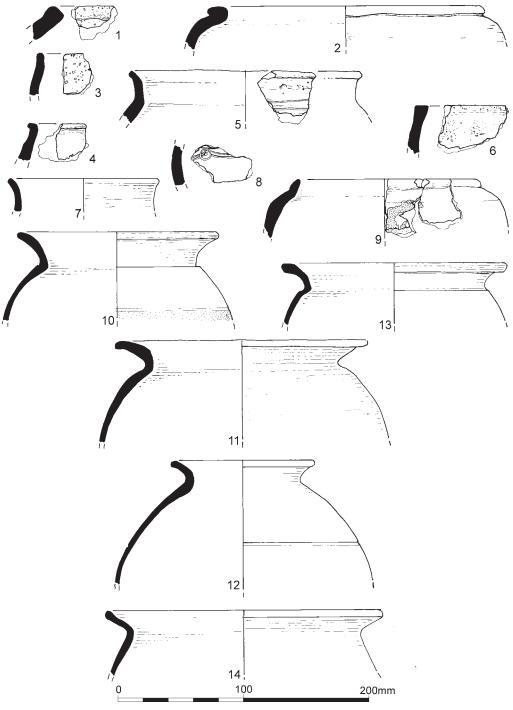


Fig. 6 Iron Age pottery (nos 1–9) and Romano-British pottery (nos 10–14)

Appendix 1. Prehistoric pottery fabric descriptions

C1: Moderately hard fabric containing quite fine, predominantly leached, sparse (7%), poorly sorted, sub-angular limestone pieces (1–2mm) with sparse (7%) sub-rounded quartz sands (0.5–1mm) and rare (2%), sub-rounded pieces of unidentified laminar rock (<2mm)

C2: Moderately hard fabric containing moderate (10%), poorly sorted, angular beef calcite (1–12mm) with sparse (3%), poorly sorted, sub-rounded quartz sands (<1mm)

C3: Palaeozoic limestone-tempered ware (MAL RE B) – see Timby 2016; Peacock 1968, Group B1

C4: Moderately soft, coarse fabric containing common (20%), moderately sorted sub-angular limestone (<2mm across), and moderate (10%) quantities of rounded quartz sands (<0.5mm)

C5: Moderately soft, coarse fabric containing sparse (7%), poorly sorted, sub-angular limestone (2–4mm) with rare (2%) poorly sorted, sub-rounded pieces of unidentified laminar rock (1–2mm) and rare (1–2%) quartz sands (<0.5mm)

C6: Hard, coarse fabric containing moderate (15%), moderately sorted, angular calcite pieces (<3mm) with sparse (7%), moderately sorted, sub-rounded quartz sands (<1mm)

I1: Hard fabric containing moderate (15%), poorly sorted, sub-rounded iron oxides (1–3mm) with moderately sized, moderately sorted, sub-rounded quartz sands (<1mm)

Q1: Hard fabric containing moderate quantities of poorly sorted, sub-rounded quartz sands (<0.5mm) and rare (2%) poorly sorted, sub-rounded quartz sands (1–2mm)

Q2: Hard fabric containing moderate quantities (10%) of moderately sorted, rounded quartz sands (0.25–0.5mm) along with sparse (5%), poorly sorted grog (0.5–1mm)

R1: Moderately soft, coarse fabric containing moderate (10%), poorly sorted, sub-rounded argillaceous particles (1–2mm), sparse (3%) sub-rounded quartz sands (0.5–1mm) and sparse (3%), poorly sorted, rounded pieces of unidentified laminar rock (<2mm) (see Appendix 2 for a description of the thin-section).

R2: Hard, coarse fabric with common (10%), moderately sorted, sub-angular sandstone (2–4mm) and rare (2%) quantities of poorly sorted, sub-rounded black/ metasediment pieces (<2mm).

R3: Malvernian rock-tempered ware (MAL RE A), see – Timby 2016; Peacock 1968, fabric group A; Tomber and Dore 1998, 147.

R4: Moderately hard, very mixed temper containing detrital/rare (1%) miscellaneous rock, grog, quartz sand and calcareous inclusions, poorly sorted, <0.5mm.

Romano-British

by Elina Brook and R. H. Seager Smith

The Romano-British assemblage consists of 1327 sherds (11,611g). The assemblage spans the entire Roman period, although there is an emphasis on late Roman (3rd–4th century AD) forms within the groups from Areas 8 and 9. With an average sherd weight of 8.7g, this material is generally in poor condition, although there is a range of fabrics represented. Many of the sherds are small and abraded, and no complete profiles could be reconstructed. Most rims were broken at the neck/ shoulder junction, meaning that vessel forms were not fully identifiable. Quantification of the assemblage by fabric types is presented in Table 3.

Fine and specialist wares

Imported table wares and amphora represent 1.8% of the overall number of sherds. The samian is from Central Gaul and dates to the 2nd century AD. Although the average sherd weight (9g) is slightly higher than that of the assemblage as a whole, many of the sherds are worn, abraded and had lost most of their surfaces. Vessel forms are limited to cups (form 33), dishes and bowls (forms 18/31 or 31 and 37), although the decorated sherds are poorly preserved with little of their original surfaces surviving.

Amphorae are also very poorly represented, limited to seven pieces of Dressel 20 amphora from southern Spain, from ditches and a pit in Area 8, and a single unsourced amphora sherd from ditch 1071 (Area 9). Dressel 20 amphora were imported from the 1st to at least the 3rd century AD (Peacock and Williams 1986, 136), but once empty, they were widely traded as containers in their own right.

Tablewares from the regional British industries similarly account for a very small percentage of the Roman ceramic assemblage (3.2% combined by sherd count). They are dominated by Oxfordshire colour-coated ware and include pieces from at least two bowls (Young 1977, 158, type C45 and 160, type C51), both types made throughout the life of the industry c AD 240–400+. A single fragment from a 4th-century (Young 1977, 132), brown colour-coated ware vessel decorated with a stamped rosette motif was found in ditch 1034. The New Forest industry was represented by a single,

Ware type	No. of sherds	Weight (g)	% sherds	MSW (g)
Imported wares				
Central Gaulish samian	16	145	1.2	9.1
Dressel 20 Amphora	7	283	0.5	40.1
Amphora	1	39	0.1	39
Sub-total	24	467	1.8	
British finewares			· · ·	
Oxfordshire colour-coat	35	183	2.6	5.2
New Forest colour-coat	1	7	0.1	7
Oxfordshire whiteware mortaria	5	112	0.4	22.4
British mortaria	1	36	0.1	36
Sub-total	42	338	3.2	
Coarsewares			·	
Oxidised ware	107	710	8.1	6.6
South-east Dorset BB1	345	2911	26.0	8.4
Southwestern greyware A	8	350	0.6	43.8
Greyware	765	6340	57.6	8.3
Sandy ware	15	132	1.1	8.8
Grog-tempered ware	8	317	0.6	39.6
Calcareous ware	8	19	0.6	2.4
Sand and grog-tempered ware	4	22	0.3	5.5
Sandstone-tempered ware	1	5	0.1	5
Sub-total	1261	10,806	95.0	
Total	1327	11,611	100	8.7

TABLE 3 - ROMANO-BRITISH WARE TYPES BY NUMBER AND WEIGHT (G)

quite thick-walled, plain body sherd from a colourcoated ware beaker found within ditch 1075.

Of the six fragments of mortaria, one was a single body sherd in a hard, fine oxidised fabric with white quartzite trituration grits found in ditch 928. This could be from south Wales or of local origin (e.g. Hartley 2001, 130–1). The remaining mortaria sherds were products of the Oxfordshire region and include body sherds from two whiteware vessels (ditches 929 and 1071) probably of later 3rd or 4th-century AD date. Both Oxfordshire and South Wales mortaria have also been found at Steart Point (Brook 2017).

Coarsewares

The coarseware fabrics dominate the Romano-British assemblage (Table 3) and were present in a range of utilitarian vessel forms, mainly jars, along with smaller numbers of straight-sided bowls/ dishes, tankard, jug/flagon and beaker forms. The minority fabrics (the calcareous wares, sandy wares, sand and grog-, grog- and sandstone-tempered fabrics) together amount to just 2.7% of the total sherd count and are likely to be of early Roman date (1st century AD), representing a continuation of the Iron Age ceramic traditions of the area.

A small quantity of extremely worn and abraded oxidised coarsewares (107 sherds, 710g) was recovered. Featured sherds were scarce and include a bead rim form, a small number of flagon sherds and base fragments from at least two Severn Valley ware tankards.

The predominant Greyware group encompasses a wide and highly variable range of fabrics from more than one source, although probably all of relatively local origin. Most contain white or translucent quartz, white mica, black and red ferrous particles and other rock fragments or common to abundant quantities of quartz sand. Grey Severn Valley wares and products of a series of related industries in Somerset and east Devon (Holbrook and Bidwell 1991, 19) are likely to be included in this group, with other potential sources including Shepton Mallet (Swan 1984, mf5.594; Evans 2001, 111), Congresbury (Swan 1984, mf4.584-5), the Huntspill cut area of the Brue valley (Leech 1982, 153), the Yeo valley and possibly Ilchester (Leach 1982, 141-2). These wares predominantly date from the later 2nd-4th centuries AD. Forms included everted, necked and collared rim jars (Fig. 6.10-14 and Fig. 7.15-17) as well as flat flanged bowls/ dishes and one tankard (Fig. 7.18). The storage jars in the distinctive South-western greyware A fabric from the area around Norton Fitzwarren (Timby 1989, 54) are also of 2nd-4th-century AD date.

Products of the South-east Dorset Black Burnished ware industry represent approximately 26% of all the Romano-British sherds. Vessel forms include the common and most widely distributed types characteristic of the mid-/late 2nd-4th centuries AD – everted rim jars, shallow, plain rimmed dishes, flat-, grooved- and droppedflange bowls/dishes (Seager Smith and Davies 1993, 231–5, WA types 2, 3, 20, 22, 24, 25 and 26) – although a numerical emphasis on the late 3rd to 4th-century AD types (WA 3, 20 and 25; Fig. 7.19) along with late surface treatments, such as coarse wiping on internal and external surfaces, highlights the predominantly Late Roman nature of the assemblage from Areas 8 and 9. Less common types include lids (WA 26; ditch 928), a cupmouthed flagon (WA 29; ditch 1071) and an oval 'fish-dish' (WA 21; ditch 928; Fig. 7.20), the latter most often of 4th-century AD date. The proportions of this fabric are akin to those from Cambria Farm and Crandon Bridge (Timby 2008).

Distribution

The pottery derived from 38 features, but only 13 contained more than 25 sherds. With the exception of 35 fragments (284g) from four pits and one posthole, all of this material derived from ditch deposits and hollow-way 704. Approximately 50% (by weight) of the total Romano-British assemblage came from Area 8 with a further 47% (by weight) found within Area 9.

The largest group of pottery found within Area 8 came from D-shaped enclosure ditch 927 and its re-cut 928 (239 sherds, 3211g). With an average sherd weight of 13.4g, this material was considerably larger than the Romano-British assemblage as a whole (8.7g) and it survived in a moderate condition. There is some indication of a chronological sequence apparent from the ceramics recovered from these features. The lower deposit (805) of the original enclosure ditch 927 contained

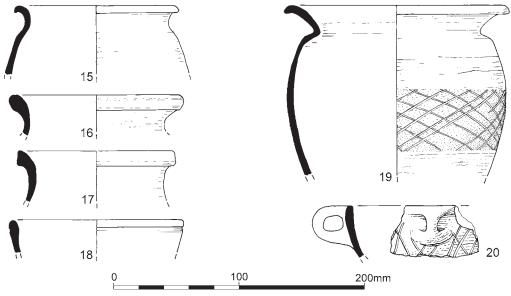


Fig. 7 Romano-British pottery (nos 15-20)

two residual Middle/Late Iron Age sherds along with pieces from an upright necked greyware jar and an oxidised tankard rim, both likely to be of early Roman date. Re-cut 928, however, contained residual material of 2nd–early 3rd-century AD date (Dressel 20 amphora, burnt fragments from two Central Gaulish samian dishes and the British mortaria), alongside a number of Late Roman vessels/forms including collared jars, a Southeast Dorset Black Burnished ware everted rim jar (Fig. 7.19) with decoration known to date from AD 235/245 onwards, and an oval 'fish dish' (WA 21; ditch 928; Fig. 7.20) of 4th-century AD date.

The only non-ditch feature within Area 8 to contain diagnostic material was pit 880. It contained 13 sherds weighing 129g that included a greyware upright necked jar/bowl along with a possible ceramic counter in a fine grained fabric that had been trimmed to form a disc, approximately 30mm in diameter.

The assemblage from Area 9 was derived from a similarly restricted range of feature types (i.e. ditch deposits). The largest group came from ditch 1071 (364 sherds, 2275g) and contained a comparable range of material to that from Area 8. The average sherd weight for all of the Area 9 groups (6.7g) is considerably lower than that for Area 8 (see above), although it is more akin to the overall Romano-British average (8.7g), ranging from 5.4g (ditch 1070) to 11g (ditch 1068), which contained a complete greyware jar rim (Fig. 6.12).

Discussion

These groups of material, particularly those from ditches 927 and 928, typify the nature of the Romano-British ceramic assemblage from the route, with residual Iron Age material present in small quantities in the early deposits, a small proportion of sherds datable to the early Roman period, followed by secondary ditch deposits containing larger amounts of ceramics belonging within the later 2nd-4th centuries AD. The abraded nature of the majority of the sherds, reflected in their low average sherd weight (8.7g), is typical of material recovered from ditches. Such groups are only rarely linked to the use of the ditch itself, tending, rather, to represent stray finds, often spanning a wide date range, present in the area but only entering the ditch once it has gone out of use and is filling up. The speed and frequency with which ditches in this damp, low-lying area probably silted up and were cleaned out or recut perhaps over extended periods of time, further exacerbate

the problems of deposition, re-deposition and re-working seen amongst ceramic groups from features of this type. It is nevertheless likely that small-scale occupation occurred in the vicinity, but not necessarily within the confines of the pipeline route, throughout the Romano-British period. The differences in the average sherd weight and condition of the Romano-British assemblages from Area 8 and the other excavated areas, indicates that the former is likely to have been closest to the original focus of settlement.

In general, the composition of the assemblage is consistent with domestic debris from rural settlements, with limited access to continental and regionally imported goods although predominantly reliant on local coarsewares. Although imports are scarce, the quantity and range of samian forms and amphora are consistent with those found elsewhere in the locality, such as at Steart Point (Brook 2017) and Crandon Bridge (Wild 2008). Overall, locally similar assemblages, in terms of both date and ceramic composition, are known from the Cheddar Reservoir sites (Wessex Archaeology 2013d), at Winscombe (Matthews 2000; Matthews 2006), and others along the Parrett river (Seager Smith 2003; Rippon 2008), as well as more generally in north-west Somerset (e.g. Leach 1982; Leech 1982; Bennett 1985).

List of illustrated vessels

Figure 6. Prehistoric (1–9) and Romano-British pottery (10–14)

- 1. Bead rim jar (R5); fabric Q1; PRN 30, context 900, ditch 898
- 2. Flat-topped bead rim jar (R7); fabric C1; PRN 40, context 906, ditch 904
- 3. Plain, upright jar rim (R6); fabric C1; PRN 55, context 903, ditch 898
- 4. Upright, necked jar/bowl rim (R4); fabric R2; PRN 26, context 900, ditch 898
- 5. Upright, necked jar/bowl rim (R4); fabric R2; decorated; PRN 27, context 900, ditch 898
- Flattened bead/triangular jar rim (R9); fabric Q2; PRN 45, context 908, ditch 904
- 7. Slightly out turned, rounded jar/bowl rim (R8); fabric C1; PRN 42, context 907, ditch 904
- Decorated body sherd, incised with pendant ringand-dot motif; fabric C6; PRN 24, context 900, ditch 898

- Bead rim jar (R2); fabric C4; traces of glue present; PRN 37, context 707, hollow-way 704
- 10. Everted rim jar; Greyware; context 807, ditch 928
- 11. Everted rim jar; Greyware; context 807, ditch 928
- 12. Everted rim jar; Greyware; context 957, ditch 1068
- 13. Everted rim jar; Greyware; context 1044, ditch 1071
- 14. Everted rim jar; Greyware; context 1044, ditch 1071

Figure 7. Romano-British pottery (15–20)

- 15. Necked jar; Greyware; context 883, pit 880
- 16. Collared jar; Greyware; context 851, ditch 928
- 17. Collared jar; Greyware; context 851, ditch 928
- 18. Tankard rim; Greyware; context 851, ditch 928
- Everted rim jar (WA 3); South-east Dorset Black Burnished ware; context 851, ditch 928
- Oval, 'fish dish' (WA 21); South-east Dorset Black Burnished ware; context 807, ditch 928

Medieval

by Lorraine Mepham

The medieval assemblage amounts to 327 sherds (3662g), recovered mainly from contexts in Area 1. These have been analysed following the standard Wessex Archaeology recording system (Morris 1994), which accords with national guidelines for the analysis of post-Roman pottery (Medieval Pottery Research Group (MPRG) 2001). Ten fabrics have been defined, three of them of known type, the other seven defined and coded on the basis of the range of macroscopic inclusions (Group R, rocktempered wares, and Group Q, sandy wares). Fabric analysis has been supplemented by a programme of petrographic (thin-section) analysis of four of the fabrics, three rock-tempered and one sandy, by Dr Imogen Wood. Her full report is included here as Appendix 2, and a summary of her results is incorporated into the discussion below. The twelve fabrics fall into four groups, based on dominant inclusion type and/or known or potential sources/ source areas. Table 4 gives the full quantification by fabric type (number and weight of sherds), together with summary descriptions.

Sandstone-rich coarsewares (R400-R404)

These coarsewares dominate the medieval assemblage (83% by weight of the total). Their predominance suggests a local source (or sources), and these sandstone-rich fabrics are now recognised as forming a ware tradition across west Somerset. Parallels can be found, for example, in the assemblages from Cheddar (Rahtz 1979, fabrics H, M), Shapwick (Gutierrez 2007, fabrics U3, U6), Brent Knoll (Gutierrez 2008, fabrics 2–4) and Steart Point (Mepham 2017, fabrics R400–R405). Sources have been suggested in the Mendips and/ or the Quantocks. Their date range appears to focus on the 11th and 12th centuries, possibly extending into the 13th century.

In this instance, the lack of limestone and chert inclusions in these fabrics rules out the Mendips as a source, and thin-section analysis of fabrics R400, R401 and R402 suggests that they fall into two groups: those with a Red sandstone-derived clay (R402), and those with a Mudstone clay (R400, tempered with sand, and R401). It is reasonable to assume that fabric R402 is derived from a suite of rocks and minerals consistent with the Quantock Hills area, most likely the alluvium in river valleys leading off this geology. This is consistent with one of the medieval fabrics previously identified at Brent Knoll Village, and for which the Devonian sandstones and siltstones are suggested as the nearest source of sand for use as a tempering material (Taylor 2008, 119, fabric 2). The wide range of minerals and rock fragments in the sand, and degree of abrasion suggests a riverine source with a large catchment area. An equivalent fabric has been identified at Steart Point, approximately 8km to the south-west (Mepham forthcoming, fabric R403).

The mudstone-derived clay identified in R401 has a higher proportion of Limonite and Mudstone inclusions, and is most probably locally derived. This poor quality waterlogged clay would have been readily available in the immediate area. The lack of obvious processing in production and minimal distance in acquiring the clay suggests household production motivated by demand.

One complete jar profile is present, in fabric R402 (Fig. 8, 1), and other diagnostic sherds derive almost equally from jars (Fig. 8, 2) and bowls or dishes (Fig. 8, 3). In this respect it differs from the assemblages from Steart Point and Brent Knoll, which consisted almost exclusively of jars, but the assemblage is too small to draw any conclusions from this.

Fabric Code	Fabric Description	No. sherds	Weight (g)
E484	Redcliffe ware (Bristol fabric BPT118)	5	16
E485	Donyatt medieval ware: hard, fine sandy fabric; fine, well sorted quartz; flecks black carbonaceous material; rare iron oxides; oxidised brown-orange surfaces with pale grey core; patchy glaze	3	41
E531	Merida-type ware: fine, visibly micaceous fabric with smooth feel, oxidised (orange); moderate, fairly well sorted subangular/ subrounded quartz <0.25mm; rare iron oxides	1	7
Q401	Hard, sandy fabric, slightly micaceous; moderate, poorly sorted, subangular/ subrounded quartz <0.5mm; rare rock fragments and iron oxides	7	146
*Q402	Hard, sandy fabric, pale-firing (buff-cream); moderate, poorly sorted, sub- angular/sub-rounded quartz <0.5mm; smoothed surfaces and patchy glaze	29	403
*R400	Hard, slightly micaceous fabric; sparse sub-angular/sub-rounded quartz <0.5mm; rare rock fragments <4mm	17	226
*R401	Hard, micaceous fabric with a silty matrix; sparse, poorly sorted rock fragments <4mm; rare subangular/ subrounded quartz <0.5mm; flecks of carbonaceous material	17	240
*R402	Hard fabric, slightly micaceous, smoothed surfaces; sparse, poorly sorted, sub-angular/ sub-rounded quartz <0.5mm; sparse sub-rounded rock fragments <1mm; rare iron oxides	226	2396
R403	Hard, slightly micaceous fabric; sparse, poorly sorted, subangular rock fragments <4mm; sparse, poorly sorted, subangular/ subrounded quartz <0.5mm; rare iron oxides	7	84
R404	Hard, sandy fabric, micaceous; sparse, poor sorted, subangular/ subrounded quartz, some iron-stained, <0.5mm; sparse coarse iron oxides	15	103
	TOTAL	327	3662

TABLE 4 – MEDIEVAL POTTERY TOTALS BY FABRIC TYPE *Fabrics sampled for petrographic (thin-section) analysis

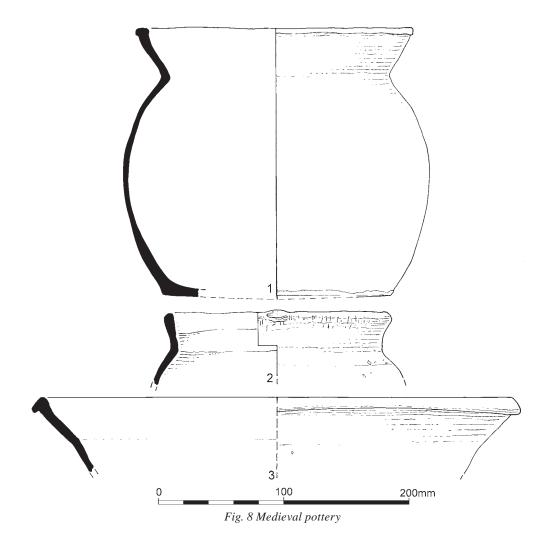
Sandy coarsewares (Q401, Q402)

These two fabrics make up 15% of the medieval assemblage by weight. Again, parallels can be found at other sites in west Somerset, such as Steart Point (Mepham 2017, fabrics Q401–Q403) and Bridgwater (J. Allan pers. comm.), and possibly also at Shapwick (Gutierrez 2007, fabric Y). There may also be an overlap with 'North Devon coarsewares' as described, for example, at Cleeve Abbey (Allan 1999, 58). They appear to have a date range of 13th to 14th century (Allan 1994, 142–4), and are considered to have a source (or sources) somewhere in Exmoor or the Quantocks (J. Allan pers. comm.). Thin-section analysis of fabric Q402

identified a mudstone-derived clay (as for R400 and R401), probably locally accessible; there is little apparent degree of processing in production. There are only two diagnostic forms here, a jar (in Q401) and a bowl (in Q402).

Fine glazed wares

Five sherds of glazed Redcliffe ware (late 13th–15th century) from Bristol and three sherds of glazed ware of medieval Donyatt type (14th–16th century) are present. None are diagnostic.



Import

One sherd in a micaceous redware fabric has been identified as probable Merida-type ware (Gerrard *et al.* 1995, 288). These wares were imported into Britain from the medieval period, but are more common in the post-medieval period. The associations here suggest a medieval date for this sherd. Its presence here is not unsurprising, given the proximity to the coast, and the relatively high number of findspots of the ware in the Bristol area and south Wales (*ibid.*, fig 10.5c). Sherds were also identified at Steart Point (Mepham 2017).

Distribution

Most of the medieval pottery (323 sherds) came from contexts in Area 1, mainly from ditches and gullies forming part of a rectilinear field system (features 157, 158, 159, 160, 161, 162, 163); the homogeneity of the assemblage from these various intercutting features suggests that they represent activity over a relatively restricted timespan, perhaps focusing on the 11th to 13th century, although all three sherds of late medieval Donyatt ware also came from field system ditch fills. Scattered sherds also derived from contexts in Areas 3, 4, 8, 9 and 10.

List of illustrated vessels

Figure 8. Medieval pottery (1–3)

- 1. Jar profile, fabric R402. Area 1, context 114, natural alluvium.
- 2. Jar rim, fabric R402; single finger impression on rim. Area 1, context 149, pit 148.

3. Flanged bowl rim, fabric R400 (full diameter not shown). Area 1, context 103, natural alluvium.

Appendix 2: Petrographic report of thin-section analyses

By Dr Imogen Wood

AIMS OF ANALYSIS

Four covered thin-section (TS) slides were produced for petrographic analysis, selected to determine the character and/or validity of variations observed within the macroscopically classified 'rock-tempered' and 'Sandy' medieval fabric groups (TS1–3, TS5). A secondary consideration of this analysis was to establish if any similarities could be found between the fabrics at Brent Knoll and those of the nearby site at Steart Point, which also produced medieval rock-tempered fabric types. A single prehistoric sherd (TS 6) was also thought to be a 'rock-tempered fabric'.

Brent Knoll is a geological island as a result of denudation of Jurassic rocks. It is formed of the Beacon Limestone Formation, located within the silicilastic argillaceous rocks of the Charmouth Mudstone Formation that form the basin that defines the surrounding landscape.

METHODOLOGY

The thin sections were analysed using a polarizing petrographic microscope (Zeiss Axioskop 40), using a range of 50–100x magnification. The minerals and rock fragments listed below are in order of frequency within the matrix, from *abundant* to *rare*.

RESULTS

Thin section 1

Macroscopic fabric type Q402

Microscopic description: oxidised fabric with reduced core; temper 10%

- Quartz, common, angular to sub-angular 0.5-0.1mm
- Limonite/clay pellet, common, reddish-brown pieces, partially opaque in thin section, grains of quartz visible, shape varies from rounded to oblong suggesting some degree of plasticity when added, generally rounded but in varying size, 1.9–0.2mm
- Red Sandstone, scatter, composed of fine quartz grains of varying size and rare Biotite mica in a dark matrix with leached clay minerals, sub-rounded, 1.4mm

Matrix: Very fine, few visible inclusions in an opticallyanisotropic clay

This is a Red Sandstone and quartz-rich fabric in a matrix of fine estuarine locally-sourced clay. The common inclusions of iron-rich clay pellets suggest this was a waterlogged clay containing degraded Red Sandstone and angular quartz. There is little apparent degree of processing in production.

Thin section 2

Macroscopic fabric type R400

Microscopic description: reduced fabric; temper 20%

- Quartz, common, angular, 0.4mm
- Quartz, common, polycrystalline well-rounded grains, 0.5mm
- Red sandstone, coarse, scatter, quartz-rich with alteration minerals in dark brown matrix, leaching weathered minerals, sub-rounded, 2.0–0.6mm
- Red sandstone, fine, scatter, fine quartz grains in a dark brown iron-rich matrix, rounded, 1.4–0.7mm
- Limonite, rare, some contain quartz grains, well-rounded, 1.3mm
- Mudstone/slate, rare, laminated structure visible, rounded oblong pieces, 2.5mm
- Strained quartz, rare, sub-rounded, oblong in shape, 1.2mm
- Mudstone, rare, well-rounded, 0.7mm

Matrix: Abundant rounded quartz grains in an opticallyanisotropic clay

The clay matrix has a significantly different composition containing polycrystalline well-rounded quartz grains and strained quartz. These characteristics were not observed in the other fabrics thin sectioned. The abrasion and rounding of the larger mudstone and coarse Red Sandstone grains suggests the addition of sand as a tempering material. All of the minerals are locally derived.

Thin section 3

Macroscopic fabric type R402

Microscopic description: reduced fabric; temper 20%

- Quartz, common, angular to sub-angular in shape, 0.5–0.1mm
- Red Sandstone, coarse, common, quartz in altered matrix leaching clay minerals, sub-rounded, range of sizes, 1.6–0.4mm
- Limonite, iron oxide, sparse, dark red soft rounded pellets, nearly opaque in thin section, some contain grains of quartz, well-rounded in shape with a range of sizes, 0.5–0.2mm
- Red sandstone, fine, rare, very fine quartz grains, well-rounded in shape, 3.0–0.2mm

Matrix: fine quartz-rich optically-anisotropic clay

This fine-grained fabric is dominated by Red Sandstone and quartz inclusions. The angularity of the quartz and similar size Limonite grains suggest this was a derived clay with little need for temper. The quantity of Red Sandstone would suggest a source area closer to the Quantocks.

Thin section 5

Macroscopic fabric type R401

Microscopic description: oxidised fabric; temper 5-10%

- Limonite, iron oxide, scatter, dark red, nearly opaque in thin section with occasional quartz grains, rounded, in wide range of sizes, 1.5–0.4mm
- Quartz, scatter, angular, 0.3–0.1mm
- Quartz, scatter, rounded, 0.3mm
- Red Sandstone, fine, rare, rounded, 1.4mm
- Mudstone, rare, laminated structure visible, generally oblong in shape with rounded edges, 0.3mm

Matrix: Abundant angular quartz grains in an opticallyanisotropic clay

The predominantly common clay minerals of Limonite and quartz make this a difficult fabric to locate. The rare mudstone and Red Sandstone do not offer any conclusive evidence of tempering material. This fabric is most likely derived from poor quality waterlogged clay deposits in a broadly local area.

Thin section 6

Macroscopic Fabric type R1 Context (707)

- Moderately soft, coarse fabric containing moderate (10%) poorly sorted, sub-rounded argillaceous particles (1–2mm), sparse (3%) sub-rounded quartz sands (0.5–1mm) and sparse (3%) poorly sorted, rounded pieces of unidentified laminar rock (<2mm)
- Microscopic description; Reduced fabric; Temper 10% Quartz polycrystalline, sparse, angular, 2.5mm Red Sandstone, coarse, sparse, quartz rich with mica and alteration minerals in dark brown matrix leaching weathered minerals, sub-rounded, 1.2mm

Matrix: optically-anisotropic clay

The pottery submitted for thin section was rather small and, despite consolidation, only a small part of the sherd was able to be mounted. The deeply-reduced fabric made it even more difficult to identify minerals, even in plain polarized light. The only observable minerals were quartz and Red Sandstone, the latter being considerably altered.

DISCUSSION

The results of the analysis of TS6, on a prehistoric sherd, is limited but suggests a locally-derived source with rounded Sandstone and angular quartz. The quartz had been heat affected prior to its addition as temper, perhaps suggesting a specific production technique to weaken the quartz prior to being crushed for temper. It can only be concluded that, as these minerals are widely available in this area, the pottery was locally produced. Thinsection analysis of larger sherds would be required for more secure identifications.

The results of the remaining thin-section analyses suggest there is some variability in the sourcing of clays and the production techniques employed. Looking at the geology of the local area, the lack of limestone and chert inclusions rule out the Mendips as a source area. The fabrics fall into two main groups: those with a Red sandstonederived clay (TS3), and those with a Mudstone clay (TS1-2 and TS5; TS2 tempered with sand). It is reasonable to assume that the sandstone clay fabric TS3 is derived from a suite of rocks and minerals consistent with the Quantock Hills area, most likely the alluvium in river valleys leading off this geology. This is consistent with Fabric 2 identified by Roger Taylor (2008) from medieval pottery found at Brent Knoll Village. He suggests that the Devonian sandstones and siltstones are the nearest source of sand for use as a tempering material (Taylor 2008, 119). The larger coarse Red Sandstone inclusions identified in some of the pottery is not distinctively red in macroscopic analysis due to the leaching of iron oxides and alteration of the matrix; this has resulted in making the quartz grains more visible, presenting as a highly-reflective friable rock fragment. In thin section the coarse Red Sandstone has abundant guartz and some mica in an iron-rich matrix with leached clay minerals. Some fragments of quartz are set in a recrystallized and silicified iron-rich matrix and some fragments have strained and deformed quartz occasionally including Biotite mica.

Some fabrics have a higher proportion of Limonite compared to Taylor's Fabric 2 (2008) and others have less sandstone of varying angularity. The mudstone-derived clays identified in TS1 and TS5 had a higher proportion of Limonite and Mudstone inclusions, and are most probably locally derived. This poor quality waterlogged clay would have been readily available in the immediate area. The lack of obvious processing in production and minimal distance in acquiring the clay suggests household production motivated by demand.

This is in contrast to TS2, where a sand temper was added. The wide range of minerals and rock fragments in the sand and degree of abrasion suggests a riverine source with a large catchment area. This fabric is also found at a medieval site on Steart Point, the sherd TS2 has the same range of rounded minerals. The origin of the sand temper is difficult to establish and would require a programme of sand sampling of nearby rivers such as the Parrett and perhaps beaches.

OTHER FINDS

by Elina Brook and R. H. Seager Smith, with a contribution by Phil Andrews

Ceramic building material

A total of 27 fragments of ceramic building material, weighing 990g, was recovered. With the exception of two pieces (one roof tile and one brick) of medieval/post-medieval date from gully 427, all are of Romano-British date and came from Areas 8 and 9. One flat fragment with combed keying (ditch 1068) is probably from a box-flue tile or voussoir block. Roof tiles are represented by a flake from an *imbrex* (ditch 1066), and a flat fragment (23mm thick; ditch 1008) possibly from a *tegula*. Five other flat fragments, which vary from 33–53mm thick, probably derive from bricks (Area 5 subsoil and ditches 904, 923, 927 and 928).

This material was probably brought to the area as hard core. The quantities are too small and the mean weight (c 36g) of the pieces too low (even a single complete tile would have weighed several kilograms; Brodribb 1987, 11) to provide direct evidence for substantial Romanised structures in the vicinity.

Fired clay

The fired clay amounts to 473 fragments (5717g), the majority of which (82% by weight) were recovered from Area 8. Part of a perforated triangular object, made in a poorly wedged, slightly micaceous, grog-tempered fabric, was found in Iron Age ditch 898. Although traditionally interpreted as loomweights, it is now considered more likely that these objects were used as oven/hearth furniture (Lowther 1935; Poole 1995). They are comparatively common finds, occurring across the whole of southern Britain from the Late Iron Age onwards, remaining current well into the 2nd century AD (Wild 2002, 10).

The remainder of the assemblage consists of small, featureless pieces, some with flattish surfaces, made in a range of fine, almost inclusionfree fabrics or slightly sandy, micaceous fabrics with occasional organic and/or grog inclusions. Most are probably of structural origin (e.g. oven/ hearth lining). The only diagnostic pieces came from possible pit 926 in Area 8. Within this, three groups of fragments (ON 3, 4 and 5) from a perforated oven plate with a central, circular opening (approximately 200mm in diameter) were found. All were made in a predominantly oxidised, fine-grained micaceous fabric with rare organic and grog inclusions; both surfaces are smoothed. Oven plates of this type (Poole 1984, 118, type 2, fig. 4.77; Cunliffe and Poole 1991, 146–9) are wellknown in Iron Age contexts, occurring locally at Cadbury Castle (Poole 2000, 213), for example.

Metalwork and slag

Copper alloy

Four copper alloy items came from ditches in Area 9 and are likely to be of Romano-British date. They comprise a very heavily corroded, unidentifiable coin (ON 22; ditch 1071), a short length of wire (ON 19; ditch 1008) and a small, unidentifiable scrap (ON 33; ditch 1013). The fourth fragment is approximately 25% of a possible wire finger ring, with diameter of c 30mm.

Lead

Three featureless fragments of melted lead were found in Romano-British ditch 1071 in Area 9. The fourth piece of lead is a small, rather twisted fragment of window came from medieval ditch 158.

Iron

The ironwork assemblage comprises 50 pieces, most of them fixings and fittings, including nails, two square-sectioned rod fragments and one other, unidentifiable, corroded item. Tools are limited to part of a large socketed knife or cleaver (Manning 1985, 122, type 2 or 3), probably of Romano-British date, from enclosure ditch 1010 (Area 9), and a post-medieval chisel, punch or wedge with a slightly burred head, from modern gully 110 in Area 1.

A group of 23 dome-headed hobnails or tacks were found in ditch 1071 (Area 9). Although these items are generally interpreted as being from nailed boots or shoes, similar tacks were also used in upholstery and to fix and decorate small items of furniture, such as boxes or chests. Where surviving, the shanks of these nails are straight, perhaps suggesting that they come from furniture rather than a boot/shoe (where the shanks are generally bent over so as not to penetrate the foot of the wearer). Two isolated hobnails also came from ditch 904 and pit 944.

The handmade nails and nail fragments (21 in total) came from Areas 1, 4, 8 and 9, with all from the latter two areas likely to be of Romano-British date. Most have flat, round heads and square-sectioned, tapering shanks, but one (from ditch

1008) has a flattened, T-shaped head (Manning 1985, 135, type 3).

Slag

by Phil Andrews

'Fuel ash slag' was recovered from eight features, but of these, only hollow-way 704 (972g) and ditch 898 (192g), both of Middle–Late Iron Age date, contained more than 100g of debris. No other possible metalworking debris was present.

Most of this material comprises a grey, vesicular, low density, slag-like residue with a frothy appearance. The piece (225g) from hollow-way 704 is reminiscent of post-medieval blast furnace slag, but its context and association with other, low density material appears to rule this interpretation out.

The source of the low density material is unclear. It is frequently recorded on Middle-Late Iron Age and, to a lesser extent, Romano-British sites, but it has no apparent connection with metalworking. Sometimes informally called 'Iron Age grey', this material has recently been considered by Young (2011), who suggests two possible origins, one as a result of the burning of a wattle and daub structure, the second – and perhaps more likely – is that it is the result of a slagging (but not necessarily related to metalworking) process on the edge of a large hearth, particularly where the margins are calcareous. This could be the source of most of the material here, that from the Romano-British contexts possibly residual from Middle-Iron Age deposits.

Struck flint

The struck flint consists of two scrapers, both made on cortical flakes (Area 6 subsoil and gully 997) and three broken flakes (hollow-way 704, ditch 904 and pit 963). All these pieces are residual in the contexts in which they occur, and although none are chronologically distinctive, together they indicate the possibility of low-level prehistoric activity in the vicinity. The small amount of unworked burnt flint came from feature 929 and ditch 1025.

Other worked stone

Only fragments considered to be from portable stone objects were collected and retained. These totalled nine pieces (462g), all from Area 8. They include six small, featureless fragments of Mayen lava stone (ditch 929), probably from a quern, although they are too degraded to be certain. The source of this material is the Middle Rhine. A waterworn pebble from ditch 928 may have been utilised as a rubber/ pounder or grinder, while two sandstone fragments with rounded edges and smoothed surfaces (ditches 898 and 904) may also have been used as rubstones or whetstones, although none of them show any obvious signs of working.

A small piece from a plain, lathe-turned shale bracelet was found amongst the artefacts from ditch 1071 in Area 9. It is probably of later 3rd or 4thcentury AD date as this period witnessed a notable expansion in the fashion of bracelets, with many new types being introduced at that time (Cool 2010, 297).

ANIMAL BONE

by L. Higbee

A total of 1040 animal bone fragments were collected, but once conjoins are taken into account the number falls to 763 fragments (Table 5). Bone was recovered by hand from 67 separate contexts and from the sieved residues of a number of bulk soil samples.

Where applicable, the following information was recorded during assessment (Wessex Archaeology 2013c): species, skeletal element, preservation condition, fusion and tooth ageing data, butchery marks, metrical data, gnawing, burning, surface condition, pathology and non-metric traits. However, detailed information relating to age, biometry and butchery is scarce.

Bone preservation is on the whole quite good and most fragments show little or no sign of physical weathering. Cortical surfaces are intact and surface details such as fine knife cuts are clear and easily observed. Poorly preserved fragments of bone were recovered from a few late Romano-British ditches, and these fragments are assumed to have been reworked and re-deposited from earlier contexts. Only seven gnawed bones were noted in the whole assemblage. This is an extremely low incidence and suggests that scavenging dogs did not have open access to bone waste.

Species	Late Iron Age	Romano-British	medieval/post- medieval	Total
cattle	25	55	2	82
sheep/goat	15	36	9	60
pig	2	7	2	11
horse	3	14		17
dog		19	1	20
red deer		1		1
domestic fowl		7	2	9
amphibian		1		1
total identified:	45	140	16	201
total unidentifiable:	114	421	27	562
Total	159	561	43	763

TABLE 5 - ANIMAL BONE: NUMBER OF IDENTIFIED SPECIMENS PRESENT (OR NISP) BY PERIOD

Iron Age

One hundred and fifty-nine fragments of animal bone were recovered from hollow-way 704 (Area 7) and ditch 898 (Area 8), approximately 28% of which are identifiable to species and skeletal element. Most of the identified fragments belong to cattle (56% NISP) and sheep/goat (33%). Both main livestock species are represented by a range of different skeletal elements including cranial fragments, such as mandibles and horn cores, and post-cranial bones including major limb and foot bones. Other identified species include pig and horse. All three horse bones are from ditch 898; they include a fragment of pelvis, a first phalanx and a loose lower tooth.

Romano-British

A total of 561 fragments of bone were recovered from the fills of 28 separate ditches, and three pits of Romano-British date. The assemblage is quite fragmented and only 25% of fragments were identifiable to species and skeletal element. Cattle bones are common, accounting for 39% NISP, followed by sheep/goat (26%), dog (14%), horse (10%), pig, domestic fowl and red deer. The only other identified species is a single frog/toad bone, most probably the remains of an animal that had fallen in to the open ditch that the bone was recovered from.

Both cattle and sheep/goat are represented by a range of different skeletal elements indicating that

livestock were slaughtered and butchered locally. A small number of calf bones were recovered, indicating that dairying played some part in the local pastoral economy. Also of note were the fragmented remains of a sheep skull and a horn core from ditch 904. The size and shape of the horn core indicate that it is from a mature ram.

Dog bones were recovered from the fills of three ditches, all in Areas 8 and 9. These comprise single bones from ditches 904 and 1071, and a partial skeleton from ditch 923.

The partial remains include the pelvic girdle and hindquarters, and are those of an adult male (os penis present). Horse is represented by loose teeth and foot bones from eight separate ditches. The remains include two deciduous lower molars from a juvenile animal. Pig and domestic fowl bones are comparatively rare in the assemblage, and each accounts for 5% NISP. A sawn piece of red deer antler was also recovered.

Medieval/post-medieval

A small number of bone fragments were recovered from ditches, gullies and pits of medieval and postmedieval date. Identified bones include sheep/goat, cattle, pig, domestic fowl and dog.

CHARRED PLANT REMAINS

by Sarah F. Wyles

Eleven samples from Iron Age and Romano-British features in Areas 7, 8 and 9 were processed and

assessed for the recovery of charred plant remains and wood charcoal; six of which were analysed.

These six samples break down into one from Iron Age hollow-way 704 in Area 7, one from Iron Age ditch 898 in Area 8, one from ditch 904 and one from pit 880, both Romano-British in Area 8, and two from Romano-British ditch group 1071 in Area 9.

Methods

The bulk samples for charred remains were generally of 30 or 40 litres and were processed by standard flotation methods; the flot retained on a 0.5mm mesh, residues fractionated into 5.6mm, 2mm and 1mm fractions. The coarse fractions

(>5.6mm) were sorted for artefacts and ecofacts, weighed and discarded.

At the analysis stage, all identifiable charred plant macrofossils were extracted from the flots, together with the 2mm and 1mm residues. Identification was undertaken using stereo incident light microscope at magnifications of up to x40 using a Leica MS5 microscope, following the nomenclature of Stace (1997) for wild species and the traditional nomenclature as provided by Zohary and Hopf (2000, tables 3 and 5, 28, 65), for cereals and with reference to modern reference collections where appropriate, quantified and the results tabulated (Table 6).

Phase		Iron	Age		Romano	-British	
Area		7		8		9	
Feature type	H'wa	H'way	Ditch	Ditch	Pit	Ditch	
Group							1071
Cut		704	898	904	880	1015	1040
Context		708	900	909	883	1017	1042
Sample		5	7	6	4	10	11
Vol (L)		30	30	30	20	40	40
Flot size		30	80	30	80	200	100
%Roots		10	5	5	60	2	5
Cereals	Common Name						
<i>Hordeum vulgare</i> L. <i>sl</i> (grain)	barley	2	-	1	1	1	2
Hordeum vulgare L. sl (grain) germinated	barley	-	-	-	-	1	-
Hordeum vulgare L. sl (rachis frag)	barley	1	-	-	-	1	1
Triticum dicoccum (Schübl) (glume base)	emmer wheat	1	5	2	9	1	4
<i>Triticum dicoccum</i> (Schübl) (spikelet fork)	emmer wheat	1	-	-	1	-	1
<i>Triticum spelta</i> L. (glume bases)	spelt wheat	-	9	5	25	42	34
<i>Triticum spelta</i> L. (spikelet fork)	spelt wheat	2	-	-	2	-	1
Triticum dicoccum/spelta (grain)	emmer/spelt wheat	3	1	2	28	28	38

TABLE 6 - CHARRED PLANT REMAINS

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Phase		Iron	Age		Romano	-British	
Area		1	7	8		9	9
Feature type		H'way	Ditch	Ditch	Pit	Di	tch
Group							1071
Cut		704	898	904	880	1015	1040
Context		708	900	909	883	1017	1042
Sample		5	7	6	4	10	11
Triticum dicoccum/spelta (germinated grain)	emmer/spelt wheat	-	1	-	5	1	4
Triticum dicoccum/spelta (spikelet fork)	emmer/spelt wheat	5	10	11	75	38	31
Triticum dicoccum/spelta (glume bases)	emmer/spelt wheat	58	95	124	1007	326	321
<i>Triticum turgidum/aestivum</i> L. (grain)	free-threshing wheat	-	-	-	-	cf. 5	cf. 6
<i>Triticum turgidum/aestivum</i> L. (rachis frags)	free-threshing wheat	-	-	-	-	3	7
Cereal indet. (grains)	cereal	8	6	10	110	35	30
Cereal frag. (est. whole grains)	cereal	8	10	10	55	25	28
Cereal frags (coleoptile)	cereal	-	1	2	51	7	3
Other Species							
Ranunculus sp. L.	buttercup	-	-	-	-	1	2
Corylus avellana L. (fragments)	hazelnut	1	-	4	-	4	2
Chenopodium sp.	goosefoot	1	-	2	1	3	10
Atriplex sp. L.	oraches	-	1	-	-	2	-
<i>Montia fontana</i> subsp. <i>chondrosperma</i> (Fenzl) Walters	blinks	1	-	-	-	-	-
Stellaria sp. L.	stitchwort	1	-	-	-	-	1
Scleranthus annuus	annual knawel	-	-	-	-	1	-
Silene sp. L.	campions	1	-	-	-	2	1
Polygonum aviculare L.	knotgrass	-	-	-	-	-	4
Rumex sp. L.	docks	3	2	1	3	33	43
<i>Rumex acetosella</i> group Raf.	sheep's sorrel	-	-	-	-	3	4
Rumex crispus L. Type	curled dock	-	-	-	-	4	5
Viola sp. L.	violet	-	-	-	-	1	-
Brassica sp. L.	brassica	2	-	1	10	3	4
Prunus spinosa L.	sloe stone	2	-	1	-	-	7

— ROMANO-BRITISH AND MEDIEVAL SETTLEMENT IN THE VICINITY OF BRENT KNOLL HILLFOR	Т
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Prunus spinosa L.	sloe stone + fruit	-	-	1	-	-	-
Prunus spinosa/ Crataegus monogyna (thorns/twigs)	sloe/hawthorn type thorns	-	-	-	-	2	2
Malus type	apple pip	-	-	-	-	-	2
Crataegus monogyna Jacq.	hawthorn	-	-	-	-	2	-
Vicia L./Lathyrus sp. L.	vetch/wild pea	5	4	7	23	25	26
Vicia faba L.	celtic bean	-	1	-	2	-	-
Vicia faba/sativa Pisum L.	celtic bean/pea	-	1	-	-	2	2
Lathyrus cf. nissolia L.	grass vetchling	-	-	-	-	3	-
Medicago/Trifolium sp. L.	medick/clover	-	2	17	7	150	359
Torilis sp. Adans	hedge-parsley	-	-	-	-	-	1
Hyoscyamus niger L.	henbane	-	-	-	-	1	-
Plantago lanceolata L.	ribwort plantain	-	-	-	-	4	4
Odontites vernus bellardi Dumont	red bartsia	-	1	2	1	8	11
Sherardia arvensis L.	field madder	-	-	1	-	-	1
Galium sp. L.	bedstraw	-	-	-	4	-	-
Leontodon sp. L.	hawkbits	-	-	cf. 1	-	-	-
Anthemis cotula L. (seeds)	stinking mayweed	-	-	-	1	-	-
<i>Leucanthemum vulgare</i> Lam.	oxeye daisy	-	-	-	-	-	1
Tripleurospermum inodorum (L.) Sch. Bip.	scentless mayweed	-	-	-	-	-	2
Schoenoplectus lacustris Palla	club-rush	-	-	-	-	3	1
Carex sp. L. trigonous	sedge trigonous seed	-	-	-	-	-	2
Carex sp. L. flat	sedge flat seed	-	-	-	-	10	-
Poaceae culm node	grass	2	2	-	-	4	-
Lolium/Festuca sp. L.	rye-grass/fescue	6	1	4	-	38	18
Poa/Phleum sp. L.	meadow grass/cat's-tails	-	1	2	-	4	12
Avena sp. L. (grain)	oat grain	-	2	-	2	3	4
Avena sp. L. (grain) germinated	oat grain	-	-	-	5	-	-
Avena sp. L. (floret base)	oat floret	-	-	-	5	-	1
Avena sp. L. (awn)	oat awn	-	-	-	16	6	2
Avena L./Bromus L. sp.	oat/brome grass	7	8	4	11	15	40
Bromus sp. L.	brome grass	-	-	-	-	5	-
Monocot. Stem/rootlet frag		21	4	5	10	38	42
Parenchyma/Tuber		-	-	-	-	1	-
Tuber		-	-	-	-	1	3

Results

Iron Age

The samples from hollow-way 704 and ditch 898 both contained moderately large charred plant assemblages, dominated by cereal remains. These included a few grains of hulled wheat, emmer and spelt (*Triticum dicoccum/spelta*), and barley (*Hordeum vulgare*). Chaff elements were predominant, in particular glume bases. A number of the glume bases and spikelet forks were identifiable as being those of spelt wheat (*Triticum spelta*) and some those of emmer wheat (*Triticum dicoccum*). A hulled wheat grain showed traces of germination and a coleoptile fragment was recovered.

Other potential crop remains recorded in the assemblage from ditch 898 included a few fragments of celtic bean (*Vicia faba*) and of celtic bean/pea (*Vicia faba/Pisum sativum*).

The relatively small weed seed assemblages were generally species indicative of grassland, field margins and arable environments. They included seeds of oat/brome grass (Avena/Bromus sp.), ryegrass/fescue (Lolium/Festuca sp.), vetch/wild pea (Vicia/Lathyrus sp.), docks (Rumex sp.), goosefoot (Chenopodium sp.), oraches (Atriplex sp.), meadow grass/cat's-tails (Poa/Phleum sp.), brassica (Brassica sp.), campions (Silene sp.), blinks (Montia fontana subsp. chondrosperma), clover/medick (Trifolium/Medicago sp.), red bartsia (Odontites vernus) and stitchwort (Stellaria sp.).

There were also a few fragments of hazelnut (*Corylus avellana*) shell and sloe (*Prunus spinosa*) stone in the assemblage from hollow-way 704, together with a number of monocot stem/rootlet fragments.

Romano-British

The four analysed samples generally produced very high numbers of charred plant remains, in particular those from pit 880 and ditch 1040 group 1071.

Cereal remains were dominant in the assemblages from ditch 904 and pit 880 in Area 8. The grains were mainly those of hulled wheat, with a few grains of barley. A small number of the grains within the assemblage from pit 880 showed traces of germination and there was also a large number of coleoptile fragments. Glume fragments were predominant in both samples, with a very large quantity recorded in the assemblage from pit 880. Again a number of the glume bases and spikelet forks were identifiable as being those of

spelt wheat and some those of emmer wheat.

Other possible cultivated crops observed in the assemblage from pit 880 included fragments of celtic bean and oat (*Avena* sp.). A number of the oat grains showed traces of germination. Unfortunately the oat floret bases were not well enough preserved to be able to distinguish whether they were from the wild or cultivated species.

The weed seed assemblages were again generally species indicative of grassland, field margins and arable environments. They included seeds of clover/medick, vetch/wild pea, brassica, oat/brome grass, rye-grass/fescue, meadow grass/cat's-tails, bedstraw (*Galium* sp.), red bartsia, field madder (*Sherardia arvensis*), stinking mayweed (*Anthemis cotula*), hawkbits (*Leontodon* sp.), docks and goosefoot.

Hazelnut shell and sloe fruit and stone fragments were present in the assemblage from ditch 904 and stem/rootlet fragments in both samples.

The samples from ditch group 1071 in Area 9 contained large amounts of charred remains. In these assemblages however there were almost equal numbers of cereal remains and weed seeds. Chaff elements were predominant within the cereal remains. The cereal grains were mainly those of hulled wheat, with a few of barley and of possible free-threshing wheat (Triticum turgidum/aestivum type). A small number of hulled wheat grains and a barley grain displayed evidence of germination and there were also a few coleoptiles. The chaff elements were dominated by glume bases as was the case in the other assemblages. Again a number of the glume bases and spikelet forks were identifiable as being those of spelt wheat and some those of emmer wheat. There were also a few rachis fragments of barley and free-threshing wheat. Other potential crops included fragments of celtic bean/pea.

The largest proportion of the weed seeds in the assemblages were those of clover/medick. There were also relatively high numbers of seeds of docks, vetch/wild pea, oats, brome grass and rye-grass/fescue. Other species present in smaller quantities, which were also indicative of grassland, field margins and arable environments, included goosefoot, buttercup (*Ranunculus* sp.), orache, stitchwort, campions, annual knawel (*Scleranthus annuus*), knot grass (*Polygonum aviculare*), sheep's sorrel (*Rumex acetosella*), curled dock (*Rumex crispus*), violet (*Viola* sp.), brassica, grass vetchling (*Lathyrus nissolia*), hedge-parsley (*Torilis* sp.), henbane (*Hyoscyamus niger*), ribwort plantain (*Plantago lanceolata*), red bartsia, field madder, scentless mayweed (*Tripleurospermum inodorum*), oxeye daisy (*Leucanthemum vulgare*) and meadow grass/cat's-tails. There were also a small number of seeds indicative of wetter areas such as marsh or river channel edge environments. These included seeds of sedge (*Carex* sp.) and club-rush (*Schoenoplectus lacustris*).

Other remains included fragments of hazelnut shell, sloe stones, hawthorn stones (*Crataegus monogyna*), and apple type (*Malus* type) pips. There were also a few hawthorn/sloe type thorns and tubers. There was a relatively high number of stem fragments in these assemblages as well.

Discussion

Iron Age

Hulled wheat remains dominated the assemblages from this period with a few remains of barley. Evidence of both spelt and emmer wheat was recorded within these assemblages. Hulled wheat is a typical cereal in Southern England during this period (Greig 1991). There are comparisons between these assemblages and those from other Iron Age deposits in the area as hulled wheat, emmer and spelt, and barley were recorded at Huntsworth (Stevens 2008), RNAS Yeovilton (Pelling 2005), emmer and spelt wheat from Aller (Simmons 2012), and spelt wheat from Hallen, Avon Levels (Gardiner et al. 2002). It appears likely that the assemblages are indicative of crop processing waste, most probably the waste derived from the dehusking of hulled grain stored as semi-cleaned grain or in spikelet form (Hillman 1981; 1984). Celtic bean fragments were also recovered from Iron Age deposits at Huntsworth (Stevens 2008).

The weed seed assemblages are typical of those from grassland, field margins and arable environments and there is some indication of the use of a number of different soil types, with the presence of blinks, indicative of damp environments, and red bartsia which favours clay soils. The occurrence of hazelnut shell and sloe remains may point to the occasional exploitation of a local hedgerow or scrub environment.

Romano-British

Spelt wheat was the dominant cereal, with small quantities of emmer wheat and barley. The presence of free-threshing wheat remains in the assemblages from ditch group 1071 is more unusual as spelt wheat is the commonplace cereal recovered from charred assemblages within the Romano-British period and free-threshing wheat, along with rye and barley, the commonplace cereal within the Saxon and medieval periods in Southern England (Greig 1991). There are similarities between these assemblages and other assemblages from Romano-British deposits in the area. Spelt wheat, with smaller quantities of barley and emmer wheat, was recorded in assemblages from Plot 4000, Avonmouth (Stevens 2007), RNAS Yeovilton (Pelling 2005), and Banwell Moor, North Somerset Levels (Jones 2000), while evidence for spelt wheat and barley was recovered from assemblages from Kenn Moor, North Somerset Levels (Jones 2000) and Crook's Marsh along the Pucklechurch to Seabank pipeline, Avonmouth (Masser *et al.* 2005).

The assemblages from the Romano-British deposits in Area 8 are again likely to be representative of waste from the dehusking of hulled grain stored as semi-cleaned grain or in spikelet form, like those from the Iron Age deposits. The evidence for germinated grain, particularly from the assemblage from pit 880 where there were signs of germination on some of the hulled wheat, barley and oat remains, could be indicative of some malting process taking place in the vicinity but it could also be the waste of cereals which had spoilt. Pit 880 lies in the entrance of a likely contemporary Romano-British D-shaped enclosure, which was very clear on the geophysical survey, and there is a reasonable chance that such an enclosure may have had an oven or kiln used for malting associated with it (possible oven 876 was virtually devoid of charred plant remains and is unlikely to have been related).

There are differences between the assemblages from Romano-British deposits in Area 8 and those from ditch group 1071 in Area 9. The high number of weed seeds, in particular the medium species such as clover/medick, dock and rye-grass/fescue, in the assemblages from Area 9 together with the large quantity of cereal remains may be indicative of waste material caused by the release of these weed seeds by the pounding process after storage (Hillman 1981; 1984).

Celtic beans were also recorded in Romano-British deposits at Plot 4000 Avonmouth (Stevens 2007), RNAS Yeovilton (Pelling 2005), Crook's Marsh, Avonmouth (Masser *et al.* 2005), Banwell Moor and Kenn Moor, North Somerset Levels (Jones 2000).

Weed species typical of those from grassland, field margins and arable environments again dominate the weed seed assemblages as in the Iron Age period. Again there is an indication of the exploitation of a number of different soils, with the possible use of sandier soils shown by the presence of sheep's sorrel, henbane and annual knawel, of heavier clay soils as indicated by the seeds of red bartsia and stinking mayweed, and of damper soils favoured by curled docks, together with lighter drier calcareous soils as favoured by species such as field madder and hawkbits.

Although stinking mayweed generally becomes more common in the Anglo-Saxon and medieval period (Greig 1991) and is characteristic of the cultivation of heavy clay soils (Green 1984), associated with the change to mouldboard ploughs from ards (Jones 1981; Stevens with Robinson 2004; Stevens 2009), it was also recorded from Romano-British deposits at Crook's Marsh, Avonmouth (Masser *et al.* 2005) and Banwell Moor and Kenn Moor, North Somerset Levels (Jones 2000).

The predominance of the low growing species such as clover, medick, dock and field madder, together with some twining species such as vetch/ wild pea and bedstraw may be indicative of the harvesting of the crops by sickle, as is typical of the period.

There is further evidence for the presence of some wetter environments in the vicinity of Area 9 with the recovery of seeds of sedge and club-rush in the assemblages. The occasional exploitation of a hedgerow/scrub environment again is indicated by the presence of hazelnut shell, sloe stones, apple type pips, hawthorn stones and hawthorn/sloe type thorns in some of the assemblages.

Some of the assemblages from Romano-British deposits at Plot 4000, Avonmouth (Stevens 2007), RNAS Yeovilton (Pelling 2005) and Kenn Moor and Banwell Moor, North Somerset Levels (Jones 2000) also showed an indication of the exploitation of a variety of different environments and soil types.

DISCUSSION

Pipelines provide only narrow transects across archaeological landscapes, but our understanding of the pattern of settlement has been expanded somewhat by the results of the geophysical survey and enhanced by knowledge of its setting in the immediate vicinity of Brent Knoll hillfort close to the Somerset Levels. Three principal phases of settlement have been identified, assigned to the Middle–Late Iron Age, Romano-British and medieval periods respectively. The Iron Age activity is principally represented by a hollow-way in Area 7, which led towards the Brent Knoll hillfort, and may have continued in use into the Romano-British period. A large ditch to the north in Area 8 was probably broadly contemporary. The substantial hillfort on Brent Knoll is likely to have acted as a centre for redistribution for the local communities and the hollow-way would have allowed access between the hillfort and the Somerset Levels to the east. A number of non-local pottery fabrics are present which may provide evidence to link the site to a wider network of trade and exchange, with a similar ceramic assemblage coming from, for example, the open settlement at Dibble's Farm, Christon (Morris 1988).

Evidence of Iron Age settlement in the wider area comes largely from hill top settlements and 'lake villages' such as Glastonbury and Meare (Fitzpatrick 2008), but other settlements and field systems are also known at Butcombe, Chew Valley and Lympsham (Rippon 1997), and recent excavations in Huntworth (Powell 2008) and at Steart Point (Higbee and Mepham forthcoming) have identified Middle–Late Iron Age occupation sites within the lower lying Levels.

Romano-British activity, possibly spanning the whole of the period, was concentrated at the northern end of the pipeline route in Areas 8 and 9. During the early Romano-British period the large Iron Age ditch in Area 8 was succeeded by a deep, V-shaped probably significant landscape boundary ditch, to the north of which a D-shaped enclosure and rectilinear field system were established. This complex extended on a similar north-west to southeast alignment for over 120m, its full extent not determined, and was a long-lived component of the Romano-British landscape. The first phase of the enclosure can be assigned to the early and middle Romano-British period, but the majority of the activity appears to be of late Romano-British date. The concentration of ditches and gullies reflects the presence of field and enclosure systems in this area, though their extent and layout is not well understood because of the narrow width of the areas excavated along the pipeline easement. No structural remains were certainly identified, but, the relatively large quantities of finds indicates settlement in the immediate vicinity, and perhaps most relevant here is the Lakehouse Farm 'villa', a little over 500m to the south-east. Indeed the presence of the D-shaped enclosure and field system may be directly linked to the nearby villa, in terms of both its development and function, as part of the surrounding agricultural landscape.

The location of the site on the lower slopes of Brent Knoll enabled it to exploit various landscape zones, including some upland areas as well as the Levels, as is also likely to have been the case in the Iron Age. Indeed in both periods there may have been a significant settlement here in terms of the amount of dependent land. The sites' Romano-British ceramic assemblage accords with those from Crandon Bridge (Rippon 2008), a possible inland Roman port, and others along the Parrett river (Seager Smith 2003), while environmental evidence suggests an arable environment and the utilisation of a number of different soils. Charred plant remains include evidence for cereal processing and possibly malting, while the small quantity of animal bone indicates that livestock, particularly cattle and sheep/goat, were slaughtered and butchered locally, with dairying also a component of the economy.

During the Romano-British period the site lay within a reclaimed landscape of rural settlements and 'substantial residential buildings' (Rippon 1997, 74). Building remains are known locally within the hillfort on Brent Knoll, which has been interpreted as a potential temple site, and at Lakehouse Farm 'villa', east of Brent Knoll (Rippon 1997), though on the current site the structures are likely to have been largely or completely built of timber.

In the post-Roman period the site lay within a major Late Saxon royal estate granted to Glastonbury Abbey in AD 693. It was during this period that the Somerset Levels were reclaimed and the River Siger was blocked and drained (Gathercole 2002). Medieval activity, other than the remains of ridge and furrow agriculture, was confined to the southern end of the pipeline route, almost exclusively in Area 1. The various ditches and gullies here formed a group of probable field and enclosure boundaries and contained almost exclusively 11th-13th-century pottery, the quantity likely to be indicative of settlement in the nearvicinity. The concentration of ditches may reflect a period of land reclamation or repeated attempts to drain the lower lying land and was presumably related to the settlement at Battleborough recorded in the Domesday survey that lay immediately to the west of this part of the site.

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The archive is currently held at Wessex Archaeology's offices in Salisbury, Wiltshire, and will be deposited in due course at Taunton Museum under accession code TNCM:36/2013.

BIBLIOGRAPHY

- Alcock, L. and Woodward, A., 2000. 'Pottery from Site K: contexts adjacent to the main east section', in Barrett *et al*, 2000, 102–5.
- Allan, J., 1994. 'Medieval pottery and the dating of deserted settlements on Dartmoor', *Proc. Devon Archaeol. Soc.* 52, 141–47.
- -, 1999. 'Cleeve Abbey: the pottery', SANH 142, 41-75.
- Barrett, C, Freeman, P. W. M. and Woodward, A., 2000. Cadbury Castle: Somerset. The later prehistoric and early historic activity, London, English Heritage Archaeological Report 20.
- Bell, M., 2000. 'Environmental archaeology in the Severn Estuary: progress and proposals', in S. Rippon (ed.), *Estuarine Archaeology: The Severn and Beyond*, Exeter, Short-run Press, 69–103.
- Bennett, J., 1985. Sea Mills, The Roman Town of Abonae: Excavations at Nazareth House 1972, City of Bristol Museum and Art Gallery Mono. 3.
- British Geological Survey, http://www.mapapps.bgs. ac.uk/geologyofbritain/home.html
- Brodribb, G., 1987. *Roman Brick and Tile*, New Hampshire, Alan Sutton Publishing.
- Brook, E., 2017. 'Prehistoric and Romano-British pottery', in L. Higbee and L. Mepham 2017, 33–9.

- Cool, H., 2010. 'Objects of glass, shale, bone and metal (except nails)', in P. Booth, A. Simmonds, A. Boyle, S. Clough, H. E. M. Cool, and D. Poore, *The Late Roman Cemetery at Lankhills, Winchester. Excavations* 2000–2005, Oxford, Oxford Archaeology Mono. 10, 267–309.
- Cunliffe, B. and Poole, C., 1991. Danebury: An Iron Age Hillfort in Hampshire. Volume 5: The Excavations 1979–88, The Finds, London, Counc. Brit. Archaeol. Res. Rep. 73.
- Dawson, D., Langdon, M., Murless, B., Newsom, M., Ponsford, M. and Webster, C., 2001. 'Archaeology and the M5 Motorway: the gazetteer of sites in Somerset', *SANH* 145, 39–51.
- Evans, C. J., 2001. 'The Roman pottery', in Leach and Evans 2001, 107–69.
- Fitzpatrick, A. P. (ed.), 2008. 'Iron Age', in C. J. Webster (ed.), The Archaeology of South West England: South West Archaeological Research Framework, Resource Assessment and Research Agenda, Taunton, 117–50.
- Gardiner, J., Allen, M. J., Hamilton-Dyer, S., Laidlaw, M. and Scaife, R. G., 2002. 'Making the most of it: late prehistoric pastoralism in the Avon Levels, Severn Estuary,' *Proc. Prehistoric Soc.* 68, 1–100.
- Gathercole, C., 2002. An Archaeological Assessment of Burnham on Sea and Highbridge – English Heritage Extensive Urban Survey, Taunton, Somerset County Council, http://www1.somerset.gov.uk/archives/hes/ downloads/Somerset_EUS_Burnham.pdf
- Gerrard, C. M., Gutierrez, A., Hurst, J. G. and Vince, A. G., 1995. 'A guide to Spanish medieval pottery', in C. M. Gerrard, A. Gutierrez and A. G. Vince (eds), *Spanish Medieval Ceramics in Spain and the British Isles*, Oxford, Brit. Archaeol. Rep. Int. Ser. 610, 281– 95.
- Green, F. J., 1984. 'The archaeological and documentary evidence for plants from the medieval period in England', in van Zeist and Casparie (eds), 1984, 99– 144.
- Greig J., 1991. 'The British Isles', in W. van Zeist, K. Wasylikowa and K-E. Behre (eds), *Progress in Old* World Palaeoethnobotany, Rotterdam, 229–334.
- Gutierrez, A., 2007. 'Medieval and later pottery', in C. Gerrard with M. Aston, *The Shapwick Project*, *Somerset: a Rural Landscape Explored*, Society for Medieval Archaeol. Mono. 25, 601–71.

-, 2008. 'The pottery', in Young 2008, 112-19.

- Hartley, K. F., 2001. 'Shepton Mallet mortaria', in Leach and Evans 2001, 130–32.
- Higbee, L. and Mepham, L. 2017. Living on the Edge. Archaeological Investigations at Steart Point, Somerset, Wessex Archaeology Occas. Paper.
- Hillman, G. C., 1981. 'Reconstructing crop husbandry practices from charred remains of crops', in R. J. Mercer (ed.), *Farming Practice in British Prehistory*,

Edinburgh, Edinburgh University Press, 123-62.

- —, 1984. 'Interpretation of archaeological plant remains, the application of ethnographic models from Turkey', in van Zeist and Casparie (eds), 1984, 1–42.
- Holbrook, N. and Bidwell, P. T., 1991. *Roman Finds from Exeter*, Exeter Archaeol. Rep. 4.
- Jones, J., 2000. 'Plant macrofossils', in S. Rippon, 'The Romano-British exploitation of coastal wetlands: survey and excavation on the North Somerset Levels 1993–7', Britannia 31, 122–56.
- Jones, M. K., 1981. 'The development of crop husbandry', in M. K. Jones and G. Dimbleby (eds), *The Environment* of Man: The Iron Age to the Anglo-Saxon Period, Oxford, Brit. Archaeol. Rep. 87, 95–127.
- Leach, P., 1982. Ilchester Volume 1: Excavations 1974–5, Western Archaeol. Trust.
- Leach, P. and Evans C. J., 2001. Excavation of a Romano-British Roadside Settlement in Somerset: Fosse Lane, Shepton Mallet, 1990, London, Britannia Mono. 18.
- Leech, R., 1982. Excavations at Catsgore 1970–1973, Western Archaeol. Trust.
- Le Patourel, H. E. J., 1968. 'Documentary evidence and the medieval pottery industry', *Medieval Archaeol*. 12, 101–26.
- Lowther, A. W. G., 1935. 'An early Iron Age oven at St Martha's Hill, near Guildford', *Surrey Archaeol. Collections* 43, 113–15.
- Manning, W., 1985. Catalogue of the Romano-British Iron Tools, Fittings and Weapons in the British Museum, London, Brit. Mus. Press.
- Marter Brown, K. and Seager Smith, R., 2012. 'What did the apocrypha know? Glued pottery vessels from Springhead and other Romano-British sites in south and eastern England', in B. Jervis and A. Kyle, *Makedo and Mend: Archaeologies of Compromise, Repair and Reuse*, Oxford, Brit. Archaeol. Rep. Int. Ser. 2408, 5–11.
- Masser, P., Jones, J. and McGill, B., 2005. 'Romano-British settlement and land use on the Avonmouth Levels: the evidence of the Pucklechurch to Seabank pipeline project', *Trans. Bristol and Gloucestershire Archaeol. Soc.* 123, 55–86.
- Matthews, J., 2000. Winscombe Vale Roman site, http:// www.bacas.org.uk/ArticlePdfs/2000-22-24.pdf
- Medieval pottery Research Group (MPRG) 1998. A Guide to the Classification of Medieval Ceramic Forms, Medieval Pottery Research Group Occas. Paper 1.
- —, 2001. Minimum Standards for the Processing, Recording, Analysis and Publication of post-Roman Ceramics, Medieval Pottery Res. Group. Occas. Paper 2.

Mepham, L., 2008. 'Pottery', in A. B. Powell, L. Mepham and C. J. Stevens, 'Investigation of later prehistoric

^{-, 2006.} Winscombe Vale Pottery Typology. Unpublished.

and Romano-British settlement at Huntworth, 2006', *SANH* 152, 76–77.

- —, 2017. Medieval and post-medieval pottery, in Higbee and Mepham, 2017, 39–47.
- Morris, E. L., 1988. 'The occupation at Dibble's Farm, Christon', SANH 132, 23–81.
- ----, 1994. *The Analysis of Pottery*, Wessex Archaeology Guideline 4, Salisbury.
- Peacock, D. P. S., 1968. 'A petrological study of certain Iron Age pottery from western England', Proc. Prehist. Soc. 34, 414–27.
- Peacock, D. P. S. and Williams, D. F., 1986. Amphorae and the Roman Economy, London, Longman.
- Pelling, R., 2005. 'Charred plant remains', in J. Lovell, 'Excavation of a Romano-British farmstead at RNAS Yeovilton', SANH 149, 49–53.
- Poole, C., 1984. 'Objects of baked clay', in B. Cunliffe, Danebury: an Iron Age Hillfort in Hampshire. Volume 2, The Excavations 1969–1978: The Finds, London, Counc. Brit. Archaeol. Res. Rep. 52, 398–407.
- —, 1995. 'Loomweights versus oven bricks', in B. Cunliffe, *Danebury: An Iron Age Hillfort in Hampshire. Volume 6*, London, Counc. Brit. Archaeol. Res. Rep. 102, 285–86.
- —, 2000. 'Structural materials', in Barrett *et al.* 2000, 212–14.
- Powell, A. B., 2008. 'Investigation of later prehistoric and Romano-British settlement at Huntworth, Somerset, 2006', SANH 152, 69–81.
- Prehistoric Ceramic Research Group (PCRG), 2010. The Study of Later Prehistoric Pottery: General Policies and Guidelines For Analysis and Publication, Prehistoric Ceramics Research Group Occas. Papers 1 & 2.
- Rahtz, P., 1979. The Saxon and Medieval Palaces at Cheddar, Oxford, Brit. Archaeol. Rep. 65.
- Rahtz, P., Woodward, A., Burrow, I., Everton, A., Watts, L., Leach, P., Hirst, S., Fowler, P. and Gardner, K., 1992. *Cadbury Congresbury 1968–73*, Oxford, Brit. Archaeol. Rep. 223
- Rippon, S., 1997. The Severn Estuary: Landscape Evolution and Wetland Reclamation, Leicester, Leicester University Press.
- —, 2000. 'The Romano-British exploitation of coastal wetlands: survey and excavation on the North Somerset Levels 1993–7', *Britannia* 31, 69–200.
- —, 2008. 'Coastal trade in Roman Britain: the investigation of Crandon Bridge, Somerset, a Romano-British trans-shipment port beside the Severn Estuary', *Britannia* 39, 85–144.
- Seager Smith, R. H., 2003. Romano-British pottery from salterns in Somerset, unpublished client report for Somerset County Council.
- —, 2005, 'Pottery' in J. Lovell, 'Excavation of a Romano-British farmstead at RNAS Yeovilton', SANH 149, 25–36.

- —, 2015, 'Later Prehistoric and Romano-British Pottery', in P. Andrews, P. Booth, A. P. Fitzpatrick and K. Welsh, Digging at the Gateway: Archaeological Landscapes of South Thanet. Archaeology of East Kent Access Phase II. Volume 2: Finds, Environmental and Dating Specialist Reports, Oxford-Wessex Archaeology Monograph 8, 193–245.
- Seager Smith, R. H. and Davies, S. M., 1993. 'Roman pottery', in P. J. Woodward, A. H. Graham and S. M. Davies, *Excavations at Greyhound Yard, Dorchester* 1981–4, Dorset Nat. Hist. Archaeol. Soc. Monogr. 12, 202–89.
- Simmons, E., 2012. Charred plant macrofossils and wood charcoal from Aller, Somerset, Somerset County Council report 44/2012.
- Stace, C., 1997. New Flora of the British Isles (2nd edition), Cambridge, Cambridge University Press.
- Stevens, C. J., 2007. 'Waterlogged plant remains', in K. Ritchie, C. Barnett, A. Barclay, R. Scaife, R. Seager Smith and C. J. Stevens, 'The Upper and Middle Wentlooge formation and a Romano-British settlement: Plot 4000, The Western Approach Distribution Park, Avonmouth, South Gloucestershire', Archaeology in the Severn Estuary 18, 28.
- —, 2008. 'Environmental evidence', in A. B. Powell, L. Mepham and C. J. Stevens, 'Investigation of later Prehistoric and Romano-British settlement at Huntworth, 2006' SANH 152, 77–79.
- —, 2009. 'Charred plant remains', in P. Andrews, K. Egging Dinwiddy, C. Ellis, A. Hutcheson, C. Phillpotts, A. Powell and J. Schuster, *Kentish Sites and Sites of Kent. A Miscellany of Four Archaeological Excavations*, Salisbury, Wessex Archaeology Report 24, 41–47.
- Stevens, C. J. with Robinson, M., 2004. 'Production and consumption: plant cultivation', in G. Hey (ed.), Yarnton: Saxon and Medieval Settlement and Landscape, Thames Valley Landscape Monograph, Oxford, Oxford Archaeology, 81–82.
- Swan, V., 1984. The Pottery Kilns of Roman Britain, Royal Commission on Historical Monuments Supplementary Series 5.
- Taylor, R., 2008. 'Thin section analyses', in Young 2008, 118–19.
- Timby, J., 1989. 'The Roman pottery', in P. Ellis, 'Norton Fitzwarren hillfort: a report on the excavations by Nancy and Phillip Langmaid between 1968 and 1971', SANH 133, 53–59.
- —, 2008. 'The pottery', in S. Rippon, 'Coastal trade in Roman Britain: the investigation of Crandon Bridge, Somerset, a Romano-British trans-shipment port beside the Severn Estuary', *Britannia* 39, 103– 19.
- —, 2016. 'The pottery, in Iron Age and Romano-British settlement near Churchdown Hill (A. Burgess, S. F. Wyles, K. Egging Dinwiddy and A. J. Barclay) Trans

Bristol and Gloucestershire Archaeological Society 134, 54–62.

- Tomber, R. and Dore, J., 1998. The National Roman Fabric Reference Collection: A Handbook, Museum of London/English Heritage/ British Museum.
- Wessex Archaeology, 2013a. Cheddar to Brent Knoll water pipeline, Somerset: archaeological desk-based assessment, unpublished client report 88420.01.
- —, 2013b. Cheddar to Brent Knoll water pipeline, Somerset: detailed gradiometer survey report, unpublished client report 88420.02.
- —, 2013c. Cheddar to Brent Knoll water pipeline, Somerset: post-excavation assessment report with proposals for further analysis and publication, unpublished client report 88421.03.
- —, 2013d. Cheddar Resevoir 2, Cheddar, Somerset: archaeological evaluation report, unpublished client report, 86065.05.
- —, 2013e. Land adjacent to Steart Village, Steart Point, Somerset. Areas D and E fieldwork: post-excavation assessment report and updated project design, unpublished client report, 77221.12.
- Wild, F., 2008. 'The samian ware', in S. Rippon (2008), 'Coastal trade in Roman Britain: the investigation of Crandon Bridge, Somerset, a Romano-British transshipment port beside the Severn Estuary', *Britannia* 39, 104–5.

- Wild, J. P., 2002. 'The textile industries of Roman Britain', *Britannia* 33, 1–42.
- Woodward, A., 2000. 'The late Bronze Age and Iron Age ceramic type series', in Barrett *et al.* 2000, 325–46.
- —, 2007. 'Prehistoric pottery', in D. E. Y. Young, 'Iron Age, medieval and recent activity at Whitegate Farm, Bleadon, North Somerset', *SANH* 151, 43–47.
- Young, C. J., 1977. The Roman pottery industry of the Oxford region, British Archaeological Reports 43, Oxford.
- Young, D. E. Y., 2008. 'Excavation of an early medieval site at Brent Knoll, Somerset', SANH 152, 105–37.
- Young, T. P., 2011. 'Possible archaeometallurgical residues', in M. Collard and T. Havard, 'The prehistoric and medieval defences of Malmesbury: archaeological investigations at Holloway, 2005– 2006', Wilts Archaeol. Natur. Hist. Mag. 104, 89–90.
- van Zeist, W. and Casparie, W. A. (eds), 1984. *Plants* and Ancient Man: Studies in Palaeoethnobotany, Proceedings of the 6th Symposium of the IWGP, Rotterdam, Balkema,
- Zohary, D. and Hopf, M., 2000. Domestication of plants in the Old World: the origin and spread of cultivated plants in West Asia, Europe, and the Nile Valley (3rd edition), Oxford, Clarendon Press.