MIDDLE BRONZE AGE SETTLEMENT AND A ROMANO-BRITISH VILLA AT QUEEN CAMEL, SOMERSET

LEE NEWTON

with contributions by Phil Andrews, Alistair J. Barclay, Dana Challinor, Nicholas Cooke, Lorrain Higbee, Grace Perpetua Jones, Nicki Mulhall, Ruth Shaffrey, Alison Sheridan, Mark Stewart, Patrick Sean Quinn and Sarah F. Wyles

SUMMARY

Excavations carried out in 2014 on land at West Camel Road, Queen Camel, produced significant evidence of Bronze Age and Romano-British activity. Ditches associated with a probable Middle Bronze Age settlement were uncovered, the focus of which is likely to lie beneath adjacent farmland to the east. From the ditches, dug in the 16th or 15th century BC, on modelled radiocarbon dates, came several loomweights and a relatively large and important assemblage of Trevisker style pottery. Mid–late Romano-British activity was represented by a trackway, field and enclosure system, and a crop-dryer, all probably associated with the known villa immediately to the north of the site. Subsequently, the area was covered with medieval ridge and furrow agriculture, the earthworks still extant at the time of the excavation.

INTRODUCTION

Following an evaluation by Thames Valley Archaeological Services in 2013 an excavation was carried out by Wessex Archaeology in 2014 on land proposed for development at West Camel Road, Queen Camel, centred on NGR 359289 124466. The evaluation had revealed evidence for Romano-British occupation associated with a known villa site in the immediate vicinity.

The site covered approximately 0.7ha and was located at the western limit of the village of Queen Camel in south-east Somerset. It is bordered to the south by West Camel Road while agricultural land surrounds the site to the north and east, with residential properties to the west (Fig. 1). The site lies on a very slightly raised plateau surrounded by low-lying ground in the valley of the River Cam, at an elevation of around 36m above Ordnance Datum (OD). The underlying geology is mapped as Jurassic and Triassic Langport Member, Blue Lias Formation and Charmouth Mudstone Formation (British Geological Survey Online Viewer).

The site is overlooked by South Cadbury hillfort, just over 3km to the east. However, the most significant archaeological remains in the immediate vicinity of the site is a 4th-century Roman villa which was identified during a series of investigations carried out to the north.

Following the recovery of concentrations of coins, mosaic *tesserae* and building material during metal detecting surveys, and the brief exposure of a small area of a mosaic pavement, a geophysical survey was conducted by English Heritage (Payne 2008). This showed that the pavement lay in the western end of a rectangular building, surrounded by an extensive series of rectangular ditched enclosures and trackways. The linear anomalies appeared to extend beyond the western and southern limits of the surveyed area, into the present site.

The nature of the remains was further defined through the subsequent excavation of three trenches in the south of the surveyed area (Graham 2009, 158–60). At the western end of the building, the foundations of a large bi-partite room containing a well-preserved mosaic floor were exposed, while the supports of a hypocaust suggested the presence of a large heated room at the eastern extent. The remains of walls and a quarried-out sub-floor identified to the south-west of the main structure were interpreted as a possible bath house. The area appeared to have been subject to extensive quarrying in later periods, and had been further damaged by medieval ridge and furrow agriculture,

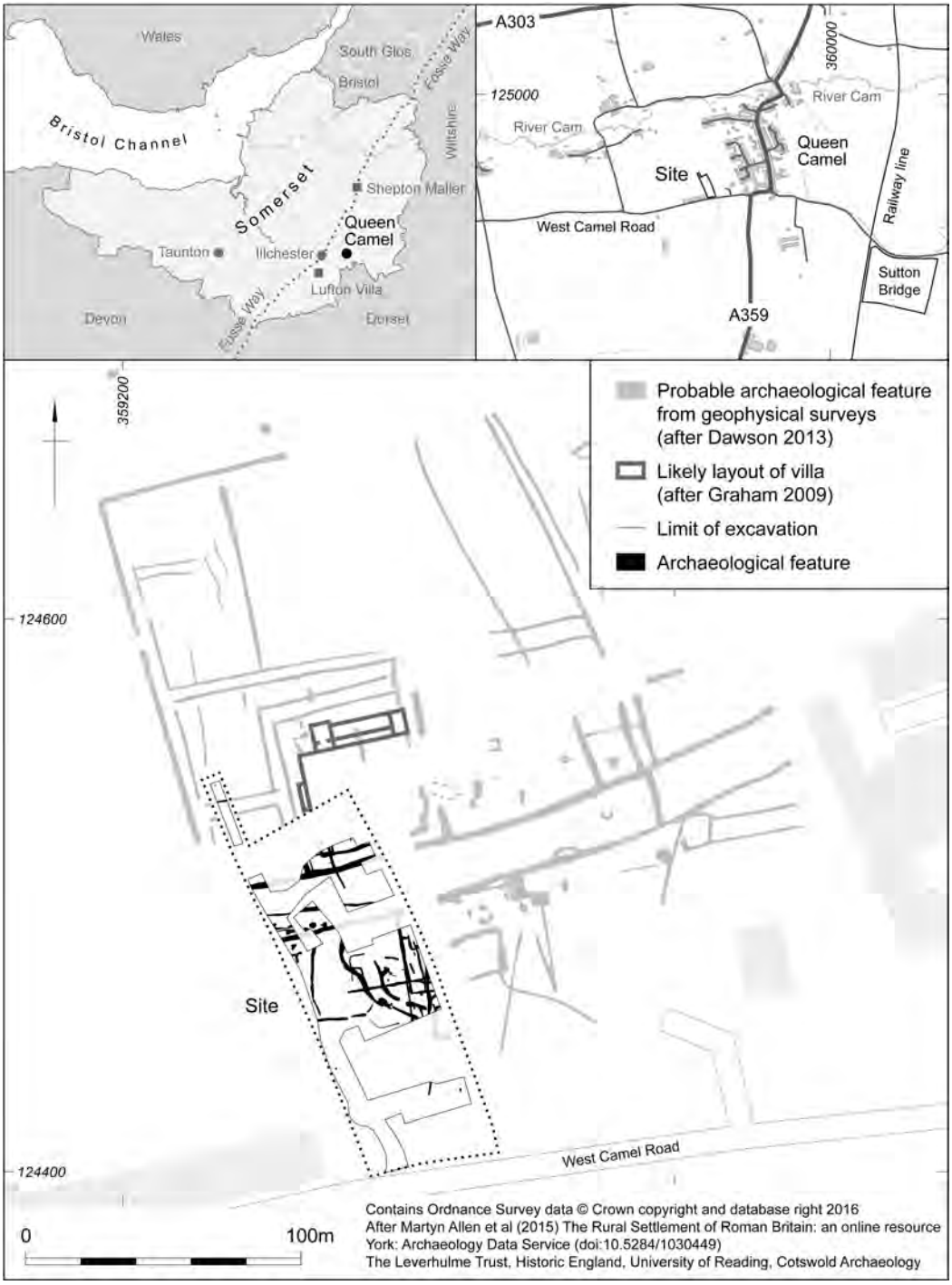

Fig. 1 Site location

which was still well preserved when soil stripping for the present excavation commenced.

In 2012, as part of pre-application works associated with the current development proposals, a detailed magnetometer survey was conducted within the site by Thames Valley Archaeological Services (TVAS). The survey identified a number of anomalies of probable archaeological origin, including two positive linear anomalies aligned east–west across the northern part of the site. These were parallel to those recorded during the 2008 geophysical survey to the north and were thought to represent ditch-type features demarcating the southern limits of a series of enclosures (Buczek and Dawson 2012a). Weaker anomalies were recorded on the same alignment to the south of these. Geophysical surveys carried out in advance of proposed development to the east and north-east of the present site confirmed the continuation of the villa complex in these areas (Buczek and Dawson 2012b; Dawson 2013) (see Fig. 1). These surveys failed to locate any features potentially belonging to an earlier period, although they stopped short of the eastern boundary of the current site. This was presumably due to the presence of the modern field boundary. Most of the subsequent TVAS evaluation trenches were targeted on geophysical anomalies noted during these surveys (Weale 2013).

Wessex Archaeology carried out further magnetometer and resistivity surveys across the site in February 2014 in order to fully define the extent of the villa complex. The results of these were generally consistent with those of the 2012 TVAS geophysical survey. Given these results, as well as the proximity of the site to a known Roman villa, it was expected that a number of features of this date would be present.

A staged programme of archaeological mitigation was undertaken where there would be direct impact. Within an area of green community space at the north end of the site, which overlapped the central part of the villa complex (though not the principal villa building itself), preservation *in situ* was proposed. This was achieved by using topsoil/subsoil to raise the level of this area, providing additional protection for archaeological remains.

BRONZE AGE OCCUPATION AND LANDSCAPE USE

Worked flint of Mesolithic, Neolithic and Early Bronze Age date provides the earliest indication of activity on the site, although this material was all residual in later features. The worked flint includes several flint tools, most notably 'thumbnail' scrapers, typical of the Early Bronze Age, a retouched flint blade and part of a distinctive red flint barbed and tanged arrowhead. This showed no wear or edge damage and may have been for display rather than serving any practical use.

The earliest evidence for occupation dates to the Middle Bronze Age. The most substantial features were two distinctive curvilinear ditch segments, 668 and 674, towards the middle of the site (Fig. 2). These segments were separated by a gap of approximately 2.7m, possibly forming an entrance, although no further segment was present beyond the northern terminal of ditch 668, and ditch 674 terminated close to its junction with 670 (see below). It appears that these ditches may have formed part of a complex of boundaries and enclosures extending to the east beyond the limit of excavation. Aerial photographs of the area show traces of several circular and curvilinear features, visible as cropmarks, in the adjacent field to the east.

The function of ditches 668 and 674 remains unclear, both being moderately deep at 1.2m and 0.9m, but relatively short in length, at 14.6m and 7.6m respectively with 668 describing a shallow curve in plan. Both displayed a broadly U-shaped profile although Section 2, close to the centre of 668, displayed a much shallower delineation with a distinctly undulating base. Modelled radiocarbon dates from ditch 668 indicate that this was dug in the 16th or 15th century BC, with infilling taking place over somewhere between three decades and two and a half centuries (see Barclay, below). The fills were steeply slumped, and alternated between rapidly deposited, charcoal-rich material and more gradual silting episodes, with occasional deposits of burnt clay (Fig 3). Most of the Middle Bronze Age pottery was recovered from the charcoal-rich layers, which also contained flecks of burnt clay, and the pottery from ditch 668 included a notable quantity of Trevisker style ware from several different vessels. This feature also produced at least four large, cylindrical, poorly-fired, centrally-perforated clay loomweights. These provide further evidence of Bronze Age settlement, as well as textile manufacture. In addition, the ditches contained significant quantities of animal bone and charred cereal remains, which indicate domestic and farming activities in the immediate vicinity. The animal bone suggests a pastoral economy based

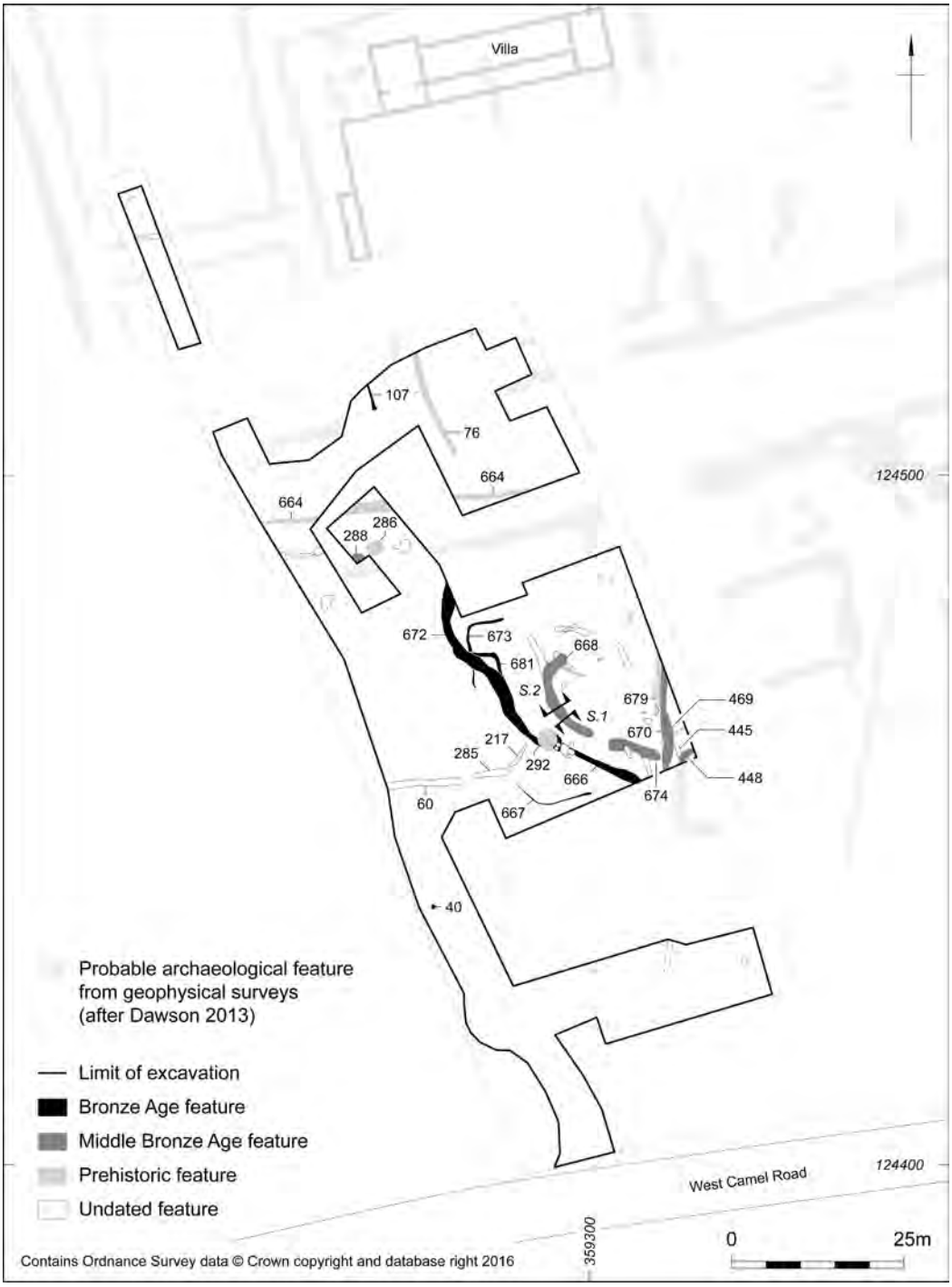

Fig. 2 Prehistoric features

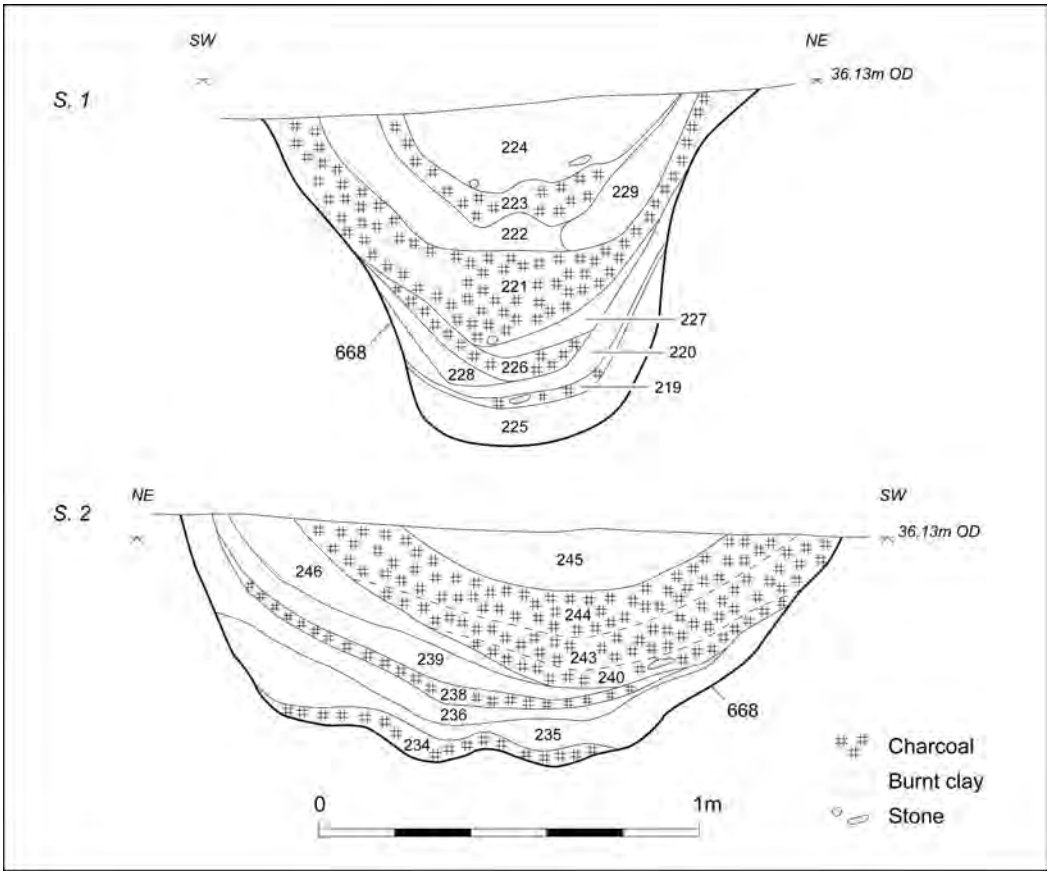

Fig. 3 Sections through ditch 668 (top: south–east-facing; bottom: north–west-facing)

on mixed livestock husbandry. A small glass bead from the upper fills of the ditch has been identified as most probably being Roman (see Sheridan, below).

Further Middle Bronze Age features comprise two possible enclosure ditches and a discrete feature. The ditches both extended beyond the limits of the excavation area, somewhat hampering their interpretation. Ditch 670, lying immediately to the east of ditch segment 674, was aligned north–south and cut across the south-eastern corner of the area. Its upper fill consisted of probable dumped hearth material, a further indication of settlement activity nearby. Dich 679 was interpreted as a reworking of this boundary, although only a broad prehistoric date could be assigned. Ditches 670 and 679 have a similar alignment to several later features discussed below. This may suggest a Romano-British date for 670 and 679, with the Bronze Age material being residual. Ditch 448 lay immediately to the east of ditch 670. Only 2m of this steep-sided, curvilinear ditch lay within the excavation area, but it appears to have been part of a possible ring-gully. This ditch was 1m wide and 0.5m deep. With so little of it visible, the true nature of this gully is unclear, but it too hints at further activity to the east.

Several ditches have been only broadly dated to the Bronze Age. Ditch 666 followed a north–west to south–east alignment for 7.5m and extended beyond the limit of excavation to the south-east. Like ditch 670, the upper fill of this feature was a deliberate backfill and contained pottery and daub fragments. To the north-west of this was ditch 672, a more sinuous feature which formed a continuation or recut of ditch 666. This feature continued beyond the limit of excavation. Together 666 and 672

possibly represent some form of boundary; there certainly appears to be a heavier concentration of Bronze Age activity to the east of this feature. Ditch 672 also cut gully 681 which in turn cut gully 673. Both gullies were shallow, curvilinear features of unknown purpose, but were presumably associated with field systems and/or drainage. Gully 667, to the south, was possibly associated with similar gully 673, although it is equally plausible that 667 was related to the undated features nearby. The only other Bronze Age feature of note was 107, a roughly north–south aligned gully at the far north end of the site which continued beyond the edge of excavation. A discrete pit, 40, lay in an apparently isolated position at the southern end of the site and contained several sherds of Bronze Age pottery. The only other feature ascribed with certainty to the Bronze Age was another shallow pit, 288, located 32m to the north-west of ditch 668 and containing fragments of Bronze Age pottery.

Also, probably dating to the Bronze Age was a group of at least three intercutting pits, 292, with a total diameter of 3m, and several other small, mostly undated features. Pit group 292 cut Bronze Age ditches 666 and 672 and had steeply sloping sides, which would seem to rule out a function as a series of waterholes. Excavation ceased at 1.2m due to flooding, so the base of these features was not reached. Although their purpose remains uncertain, they may have served as a sequence of wells. A Bronze Age date is tentative, though the deliberately deposited fills included domestic waste containing Bronze Age pottery and animal bone. These deposits were interspersed with naturally derived fills. It is possible that ditches 666 and 672 channelled water into this feature, although it should be noted that the Bronze Age pottery could have derived from these ditches and, therefore, be residual.

Two ditches, 76 and 664, aligned north–west to south–east and east to west respectively, and shallow pit 286, could only be dated to the prehistoric period.

It is also considered likely that many of the undated features on the site were of Bronze Age date. It is probable that gully 217 dates to the same period as gully 667 since they were similar in shape and appeared to be associated. The eastern ends of these two features were only 1.65m apart, the gap possibly forming the entrance into an enclosed area. Gully 285 was a short, shallow, feature that terminated just short of 60, a longer and deeper gully that continued beyond the limit of excavation. It is possible that these represent the remains of a segmented ditch which, if the association with 667 is correct, also date to the Bronze Age. It is also plausible, however, that 60, 217 and 285 are associated with 681 to the north, which together would enclose an area to their west.

Ditch 469, a very shallow and insubstantial feature on the eastern edge of the site is also undated, but was cut by Middle Bronze Age ditch 670. Likewise, undated ditch 445, located in the south-eastern corner of the site, was cut by Middle Bronze Age ditch 448. This north–south aligned feature was 0.60m wide and 0.27m deep and extended for 2m. These two ditches presumably constitute part of an earlier system of enclosures and ditches clustered within the south-eastern corner of the site.

A ROMAN VILLA AND ITS SURROUNDINGS

The evidence for later occupation consisted of a sequence of two or three phases of middle–late Romano-British ditches and gullies, mainly following an east–west alignment, as well as a crop-drying oven, all likely to have been associated with the villa to the north (Fig 4).

It has been possible to assign six ditches broadly to the Romano-British period, all of which represent further elements of the landscape surrounding the villa to the north (see Fig 1). The ditches were aligned approximately north–south or east–west. They generally had steep, straight or moderately sloping concave profiles and contained naturally derived fills indicative of gradual silting once the ditches had fallen out of use.

Ditch 663 was the most substantial of these ditches and may have formed the southern side of an east–west aligned trackway. Late Romano-British ditch 70 formed the northern side of this route, therefore assigning ditch 663 to the same period, by association. The track itself, bounded by the ditches, was 18m wide. Ditch 663 had moderately-sloping, straight sides, a flat base and was 1.9m wide and 0.6m deep. The ditch contained three naturally-deposited fills from which Roman pottery, including a sherd of imported Gaulish samian ware, animal bone and fired clay were recovered. Ditches 106 and 677, also dated broadly to the Romano-British period, were aligned at right angles to ditch 663, and are interpreted as part of a wider field system associated with the villa to the north. Ditch 106 was slightly curvilinear and contained Roman pottery, animal bone and fired

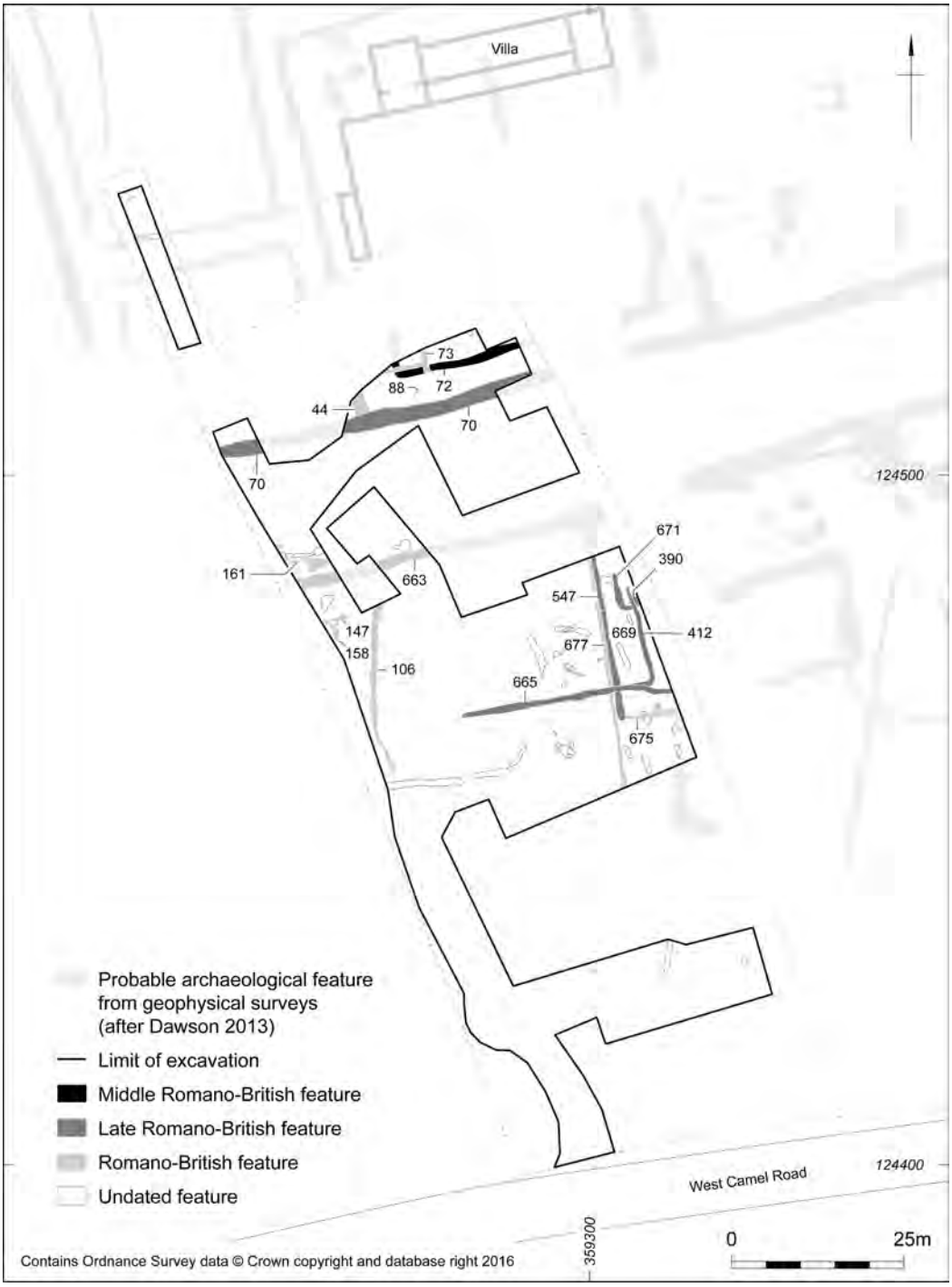

Fig. 4 Romano-British features

clay. Episodes of re-cutting or cleaning of the ditch were indicated by a terminal halfway along its 25m length, although the northern terminal lay outside of the excavation area. Ditch 677 lay approximately 35m to the east of ditch 106 and followed the same alignment, although on a straighter course, for approximately 35m, extending beyond the excavated area. Ditch 677 was cut by later Romano-British ditches 547 and 665, and ditch 675 extended for approximately 9m from the eastern edge of the site before it was cut by ditch 669. It is possible that ditches 677 and 675 joined each other at right angles to form part of an earlier field system, although this relationship has been truncated by the terminal of ditch 669.

Ditch 44, at the northern edge of the site, was fairly substantial at 2.15m wide and 1.1m deep, although only 3.5m was exposed within the area of excavation. Its southern end was cut by later Romano-British ditch 70, although it is likely that these two features formed different phases of the same field system. Pottery from the lower fills of this feature dates to the 1st to 3th century. Less that 10m to the east was ditch 73 which cut the top of ditch 72. The upper of the two fills in ditch 73 contained Roman pottery, animal bone and two 4th-century coins, providing a *terminus post quem* for the final backfilling. The interpretation of this feature is uncertain but given the relatively narrow, flat base it is possible that it represents a foundation trench or beam slot associated with a timber-framed building, possibly an outbuilding of the nearby villa. The position of this feature on the northern edge of the site, nearest to the villa, perhaps supports this suggestion.

At the western edge of the site, cut into a group of possible quarry pits 158, was a well preserved probable crop-drying oven 147 (Fig 5). This was keyhole-shaped in plan, and had an oval chamber measuring 1.7m by 1.15m at its eastern end. This was linked to a 1.4m long by 0.45m wide flue, with a partially-exposed stoke-hole measuring

Fig. 5 Ditches 72 (foreground) and 73, showing possible stone causeway. View from the south–west (2m scale)

Fig. 6 Crop-drying oven 147, showing chamber (foreground) and collapsed stone from flue roof. View from the south-east (1m scale)

0.95m by 0.8m at the west end. Twelve possible stakeholes were identified in the area surrounding the chamber, which may relate to the construction of the superstructure. The natural clay at the base of the chamber was heat-affected, as was the eastern edge of the stoke-hole. A large lias-stone slab found towards the base of the flue probably formed part of the now collapsed roof. The chamber also contained heat-affected lias stones which probably formed part of the original structure. At the western end of the flue was a 0.15m deep charcoal-rich deposit, 151, which extended into the stoke-hole. This contained two sherds of Roman pottery, and layers 154 and 155 above probably represent the collapse or demolition of the crop-drying oven and the more gradual infilling of the feature once it had fallen out of use.

Immediately to the north of ditch 663 was a group of nine intercutting pits and an associated gully, collectively numbered 161. The pits were all shallow and contained naturally derived fills, and although no stratigraphic relationships could be determined they were probably all broadly contemporary.

Three small sub-circular postholes were located between ditches 70 and 72. Posthole 88, the easternmost of these, contained Roman and prehistoric pottery, fired clay and animal bone, along with a notable concentration of charcoal.

A single ditch (72) was dated to the mid-Romano-British period. This crossed the northern end of the site from east to west and was cut by ditch 73. Ditch 72 had a steep profile and was up to 1.25m wide and 0.92m deep. It contained a mixture of naturally deposited fills and deliberate backfills. Dark, charcoal-rich, fills at the eastern end of the ditch contained relatively large quantities of mid-Roman pottery, including a near-complete bead-rimmed bowl as well as a substantial quantity of fired clay. This feature matches an anomaly on the geophysical survey and probably represents an enclosure ditch related to the villa complex to the

north. Very close to its junction with ditch 73 the bottom fill of ditch 72 contained a substantial dump of thick, dressed, blue Lias stone slabs, up to 0.4m across, pitched onto their edges against the side of the ditch (Fig 6). These stones could represent the foundations of a structure, now largely robbed-out, and ditch 73 in the immediate vicinity has also been interpreted as possibly having been a structural feature (see above). However, given the concentrated nature of the stone within ditch 72, it is possible that it formed some kind of causeway across the ditch.

Five ditches have been assigned a late Romano-British date, all following a broadly north-east to south-west or north-west to south-east alignment. These alignments also match those noted during the geophysical surveys outside of the site and associated with the villa. They probably represent trackways and field/drainage ditches that formed part of the wider Romano-British landscape.

The most substantial of these features was ditch 70, a large north-east to south-west aligned feature measuring 2.4m wide and up to 1.15m deep. The lower primary, as well as secondary fills of this ditch contained 1st–3rd-century pottery, as well as animal bone and some slag. The upper fills contained 3rd–4th-century pottery, as well as two stone roof tiles, ceramic building material, glass and shell. This suggests that the ditch was long-lived but went out of use and was purposely backfilled during the 4th century. The presence of building materials from the nearby villa suggests that it too was abandoned at this time, and perhaps at least partially demolished, rather than being left to fall into ruin. Robbing of the site in antiquity has previously been suggested (Graham 2009) and it seems likely that it served as a ready source of building materials for the early phase of the local village.

Ditches 669 and 412, aligned approximately north to south and following the line of Romano-British ditch 677, were broadly parallel and probably represent field boundary ditches laid out to the south of the villa. Ditch 669 intercut ditch 677 although no stratigraphic relationship was visible between the two. However, ditch 669 was ascribed a later date within the Romano-British period on the basis of pottery recovered from its fill. Ditch 669 also displayed evidence of having been recut several times. Ditch 669 contained 3rd- to 4th-century pottery, as well as small quantities of animal bone, iron slag and fired clay. It was 1–1.4m wide, 0.40–0.70m deep and extended for approximately 19.5m from the northern edge of the site before terminating at its junction with ditch 675.

Ditch 412 probably formed another part of this late Romano-British field system and cut through other late Romano-British ditches 671 and 390. At its southern end ditch 412 turned to the west and was then cut by ditch 665, which was broadly parallel to trackside ditches 70 and 663, 25m to the north. Ditch 665 produced pottery dating to the 2nd to 4th centuries as well as fired clay, slag and animal bone. Although it was recorded for 30m from the eastern edge of the site, the western end of this ditch was unclear and it is possible that it continued across the whole width of the site.

Ditch 671 lay to the east of ditch 669 and appeared to enclose a small area. This feature contained late Roman pottery, fired clay and three iron nails.

Feature 390, on the eastern edge of the site, probably represents the terminal of a ditch, the rest of which continued eastwards beyond the excavation area. Only 1.55m of this ditch was exposed, which was 1.8m wide and 0.70m deep. The feature was notable for the relatively large quantity of iron smithing slag present within its fill.

FINDS

Worked flint

by Mark Stewart

The condition of the flint is varied, although it is generally unabraded and fresh. Many pieces have a lustrous, glossy appearance and the vast majority are unpatinated. Where patination is present, it is invariably whitish-blue. Eighteen pieces show signs of being burnt, with some others possibly hinting at some slight heating (vitrified appearance in breaks).

The raw materials are quite varied but the most common is brown or grey in colour, most with some degree of white speckling, and of fair to good quality. Where cortex is present, it is frequently thin and white/cream in colour. Some of this flint may well come from the chalk downland to the south-east, but none is obviously so derived and more local, gravel terrace and Clay-with-Flints deposits may have been exploited. A small amount of chert is also present, mostly in the form of coarse-grained, pale yellow-brown material (Greensand chert), but also including a single piece of Portland chert from Middle Bronze Age ditch 668. The former originates (most locally) in

the Greensand Escarpment of the Vale of Frome, but it is also present, in more sparse quantities, in various nearby river terrace locations (Bond 2004). The Portland chert perhaps provides the clearest indication of more distant sourcing. One further, notable piece is an arrowhead tip (Object Number (ON) 5; ditch 106) in a distinctive, red flint. A blade in the same distinctive raw material may suggest its selection due to its attractive colour.

The composition of the assemblage is summarised in Table 1. The majority of pieces comprise debitage, particularly flakes/broken flakes and micro-debitage/chips (67.4%). The former are perhaps notably towards the smaller scale with primary, cortical flakes poorly represented. Both soft and hard hammer modes are represented. Blade/bladelet technology is also represented, albeit at a fairly low frequency (16 pieces overall). Some of these are of a quality and form to imply a refined level of core control typical of earlier prehistoric material. A total of 24 tools were recovered; most are not particularly chronologically diagnostic but a few are more distinctive. One small microlith, from pit 299, with steep retouch along the proximal left-hand side and lighter retouch on the distal left, is clearly of later Mesolithic date, although damage makes it difficult to classify this piece accurately. ON 5, noted above, is a finely worked, invasively retouched projectile tip; while technically unclassifiable, this piece clearly represents the remains of an arrowhead produced in a way typical of Neolithic or Bronze Age forms (and probably the former). Of the 16 scrapers, most are difficult to date but two, from Middle Bronze Age ditches 668 and 679, appear to be convincing examples of the 'thumbnail' type typical of the earlier Bronze Age, while at least one other, made on the distal end of a blade, is likely to be of Mesolithic/Neolithic date.

TABLE 1 – COMPOSITION OF THE FLINT ASSEMBLAGE BY TYPE

Type	**No.**	**%**
Flake cores	1	0.5
Broken cores	2	1.0
Blade/bladelet cores	1	0.5
Blades	6	3.0
Broken blades	4	2.0
Bladelets	3	1.5
Broken bladelets	5	2.5
Flakes	41	20.0
Broken flakes	34	17.0
Rejuvenation flakes	2	1.0
Micro-debitage/chips	59	29.5
Debitage/fragments	10	5.0
Axe thinning flakes	1	0.5
Sub-total debitage	*169*	*84.5*
Microliths	1	0.5
Scrapers	16	8.0
Other tools	4	2.0
Micro-denticulates	1	0.5
Projectiles	1	0.5
Piercers	1	0.5
Misc. retouch	7	3.5
Sub-total retouch	*31*	*15.5*
Edge damage	1	0.5
Burnt flint	18	9.0
Total	**200**	**99.9**

Pottery

by Grace Perpetua Jones

Bronze Age

A total of 701 sherds of Middle Bronze Age pottery, weighing 8316g, was recovered from the site (Table 2). The assemblage is in moderate condition with a mean sherd weight (MSW) of 11.9g. The material derived from 68 contexts but 71% of this count, and 86% of the weight, came from a single feature, curvilinear ditch 668 (Table 4). This feature appeared to be associated with adjacent ditch 674, containing a further 6% of the assemblage by count, but only 3% by weight. Ditch 672, located approximately 5m to the west of ditches 668 and 674, was the only other feature to produce more than 25 sherds of pottery (6% by count, 2% by weight). The assemblage has been fully recorded according to the guidelines of the Prehistoric Ceramics Research Group (PCRG 2010) and the information is held in the project's Access database.

Fabrics

The fabrics included calcareous-gritted fabrics, grog-tempered wares, fabrics containing both grog and calcareous inclusions, and sandy wares (Table 3 and Appendix 1). Fabric GV1, containing a moderate amount of grog and voids, accounted for 44% of the Middle Bronze Age pottery by count

TABLE 2 – QUANTIFICATION OF MIDDLE BRONZE AGE POTTERY, BY FEATURE (NUMBER/WEIGHT IN GRAMMES)

Feature	Number	% of number	Weight	% of weight	MSW*
Ditch 668	496	70.6	7139	85.8	14.4
Ditch 672	42	6.0	142	1.7	3.4
Ditch 674	41	5.8	225	2.7	5.5
Ditch 670	20	2.8	299	3.6	15
Ditch 666	18	2.6	43	0.5	2.4
Ditch 678	17	2.4	121	1.5	7.1
Ditch 679	16	2.3	127	1.5	7.9
Scoop 40	9	1.3	9	0.1	1
Pit 385	8	1.1	19	0.2	2.4
Posthole 570	6	0.9	5	<0.1	0.8
Ditch 448	7	1.0	36	0.4	5.1
Ditch 665	5	0.7	6	0.1	1.2
Pit 286	4	0.6	13	0.2	3.3
Fire pit 632	2	0.3	44	0.5	22
Ditch 673	2	0.3	12	0.1	6
Pit 388	2	0.3	11	0.1	5.5
Gully 107	2	0.3	4	<0.1	2
Posthole 88	2	0.3	3	<0.1	1.5
Gully 667	1	0.1	50	0.6	50
Gully 681	1	0.1	8	0.1	8
Total	701		8316		11.9

*Mean Sherd Weight

and 60% by weight, but all these sherds are likely to have come from a single vessel. Grog-tempered fabric G1 accounted for a further 25% of the total number of Bronze Age sherds and 16% of the weight. This ware contained a common amount of grog fragments and occasional voids. The other fabrics were predominantly calcite-gritted or calcite and grog-tempered, rhomboid-shaped voids visible in the section of the C3 fabric also indicate a leached but once calcite-gritted fabric. Minor fabrics include those characterised by degraded calcareous inclusions (C2 and C4), shell temper (S99), limestone and grog (LG1) and unidentified voids (V1). Seven sherds (29 g) in sandy fabrics were recovered from Middle Bronze Age ditches 668 and 672, and probable Bronze Age ditch 666. A further three sherds in sandy fabrics (Q1 and Q4) are of Late Iron Age/Romano-British date and were intrusive in ditches 668 and posthole 570.

Petrographic summary
by Patrick Sean Quinn

Seven samples from the Middle Bronze Age pottery were selected for petrographic analysis. The aims of this analysis were to characterise the raw materials and manufacturing technology of the sherds, including evidence of grog tempering. The petrographic report and photomicrographs are held in the project archive (Quinn 2016), and a summary of it is presented here. All samples

TABLE 3 – QUANTIFICATION OF MIDDLE BRONZE AGE POTTERY, BY FABRIC

Fabric	Number	% of number	Weight (g)	% of weight
Calcareous fabrics	***138***	***19.7***	***925***	***11.1***
C1	40	5.7	444	5.3
C2	4	0.6	23	0.3
C3	59	8.4	239	2.9
C4	7	1.0	20	0.2
C5	25	3.6	150	1.8
C6	1	0.1	46	0.6
S99	2	0.3	3	0.0
Vesicular fabric	***7***	***1.0***	***10***	***0.1***
V1	7	1.0	10	0.1
Calcareous and grog-tempered	***62***	***8.8***	***1038***	***12.5***
CG1	4	0.6	22	0.3
CG2	11	1.6	174	2.1
CG3	45	6.4	820	9.9
LG1	2	0.3	22	0.3
Grog-tempered	***487***	***69.5***	***6134***	***73.8***
G1	176	25.1	1300	15.6
GV1	310	44.2	5013	60.3
G99	1	0.1	1	0.0
Sandy wares	***7***	***1.0***	***29***	***0.3***
Q2	4	0.6	19	0.2
Q3	2	0.3	7	0.1
Q5	1	0.1	3	0.0
Total	**701**	**100.0**	**8316**	**100.0**

are silty and have non-calcareous clay matrices. Firing was below 850°C. The grog-temper in the large jar from ditch 668 (Fig. 7.1) came from a vessel made from a silty, non-calcareous clay. Most of the voids in the fabric are likely to have been intrinsic or formed during drying, though a few may have derived from the removal of inclusions after firing. Some of the grog temper in a sherd with incised decoration (Fig. 8.10) derived from a vessel that was itself grog-tempered, whilst the grog in a calcite and grog-tempered fabric used for the impressed cord decorated jar (Fig. 8.2), and limestone and grog-tempered fabric used for a fingertip-impressed vessel (Fig. 8.13), both appeared to come from the crushing of a calcite-tempered vessel. The vessels illustrated in Figures 8.12 and 8.14 were related in fabric, both containing poorly sorted, angular calcite in a non-calcareous, silty and slightly micaceous matrix. The calcite identified in the vessels submitted for petrographic analysis (Fig. 8.2, 4, 7 and 12) all appear to have derived from a sparry crystalline limestone which was crushed and deliberately added to a non-calcareous, silty or very fine sandy base clay (Quinn 2016).

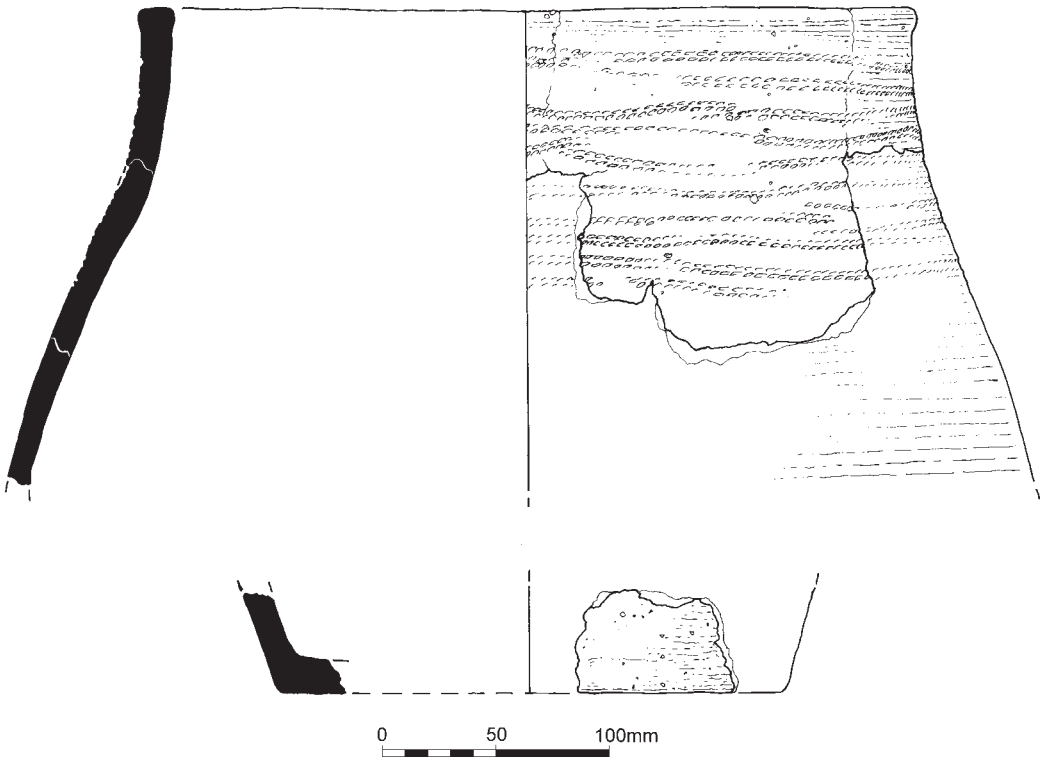

Fig. 7 Prehistoric pottery (no. 1)

Form and decoration

The pottery forms were recorded against 15 codes (R1–R15; Table 5), although three of those relate to rim fragments broken around the neck or too fragmentary to ascertain the profile of the vessel (R5, R7, R11 and R12). The assemblage was dominated by jar forms, most with quite gently convex walls, although three appeared to have more ovoid profiles (Fig 8, 8 and 15 and R6) and two were of neutral profile (Fig 8, 7 and 13). One large jar had a more defined, restricted neck zone and rounded body (Fig 7, 1). The profile of this vessel bears similarity to one from Brean Down (Woodward 1990, fig. 91.42), the latter compared by Woodward to an urn from Gwallon Down, Cornwall (Woodward 1990, 132). The profile of one vessel appeared to be quite open, with a squared rim and straight sides (Fig 8, 6). The most commonly occurring rim form was one with internal bevel; most of the other rims were flat-topped, but there were also one T-shaped and four rounded rims, although the latter were too fragmentary to ascertain their orientation or profile.

The pottery is highly decorated and a range of techniques and motifs were recorded. The most elaborate was the geometric scheme created with double twisted cord impressions on a fine, calcite and grog-tempered jar (Fig 8, 2). The motif comprised a zone of chevrons bound by horizontal lines, although these were irregularly applied. Bands of twisted cord impressions were also used to decorate two other vessels in grog-tempered and calcite-gritted fabrics: a large, coarseware jar (Fig 7, 1) and a smaller vessel (Fig 8, 14). The most commonly used decorative technique was the application of a band of fingertip and fingernail impressions to the upper exterior or shoulder area of the pot (seven vessels). A stick or bone had been used to create a similar pattern around the upper exterior of one vessel (Fig 8, 15). Tooled or impressed diagonal lines were noted on one small vessel (Fig 8, 3), while horizontal grooves created a rippled effect on the exterior of a neutral-profile vessel (Fig 8, 7). Other motifs recognised on isolated body sherds included impressed horizontal lines above alternating diagonal impressions (Fig 8, 11),

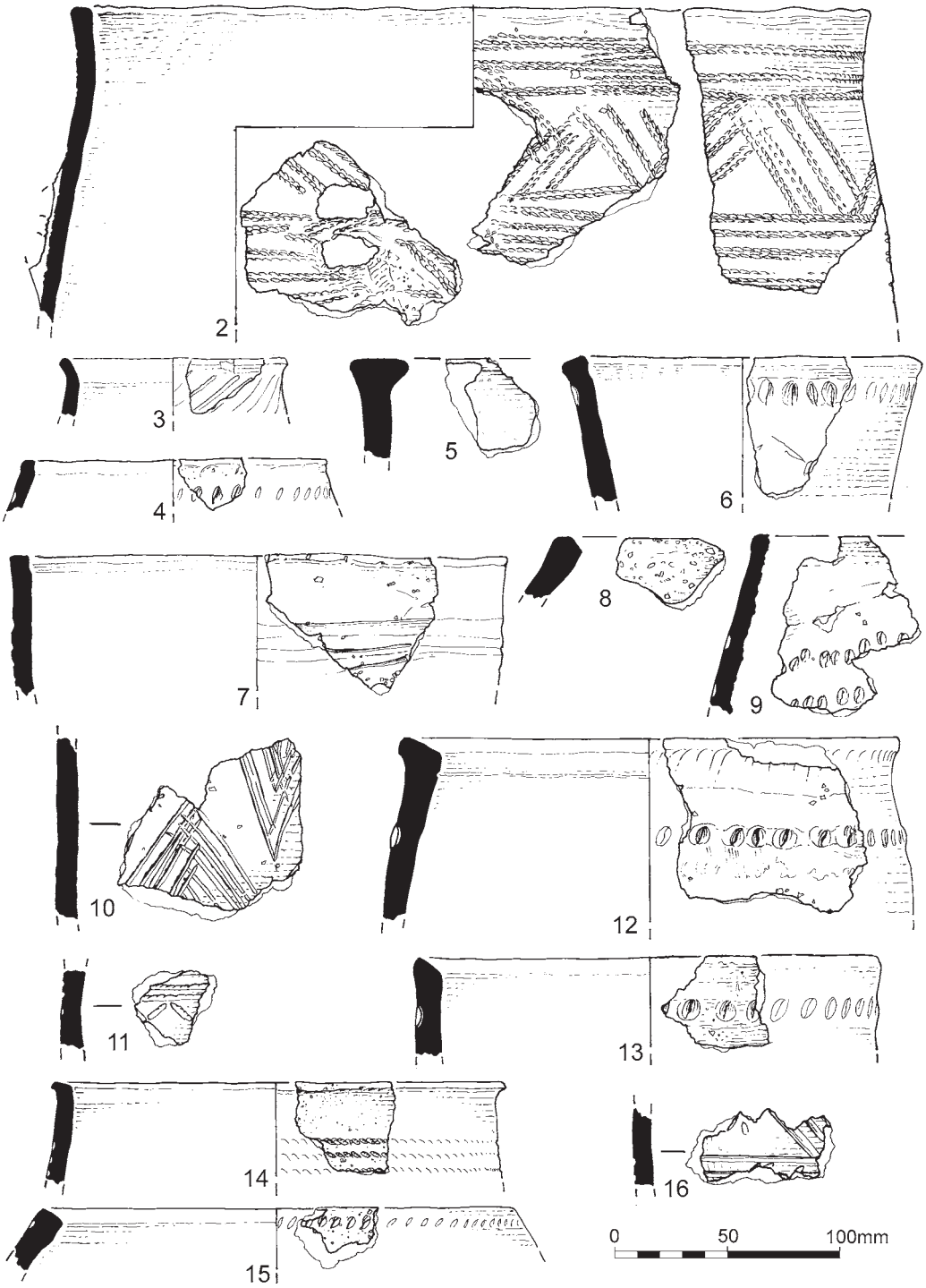

Fig. 8 Prehistoric pottery (nos 2–16)

TABLE 4 – QUANTIFICATION OF POTTERY FROM DITCH 668

Intervention	Number	% of number	Weight	% of weight
218-Section 1	5	1.0	136	1.9
232-Section 2	32	6.4	374	5.2
349-N. terminal	406	81.9	5828	81.6
426-S. terminal	53	10.7	801	11.2
Total	**496**		**7139**	

TABLE 5 – SUMMARY OF CHARACTERISTICS OF EACH MIDDLE BRONZE AGE POTTERY FORM

	No. of vessels	Rim	Profile	Decoration	Fabric	Illustration
R1	1	Internally-bevelled, externally expanded	Convex	FT/FN impressions in band around body	C1	Fig. 8,12
R2	2	Internally-bevelled	Neutral	FT/FN impressions in band around body	LG1; G1	Fig. 8,13
R3	1	Internally-bevelled, pinched and externally expanded	Convex	At least three bands of twisted cord impressions	C1	Fig. 8,14
R4	1	Flattened, thickened externally and sometimes internally	Upright neck, rounded body	Multiple horizontal bands of double twisted cord impressions	GV1	Fig. 7,1
R5	3	Rounded	Unknown	Band of fingernail impressions (one vessel)	C2, C3, G1	None
R6	2	Internally bevelled	Ovoid	None	G1, CG1	None
R7	5	Flat-topped	Unknown	FT/FN impressions in band around body or impressed lines	C4, C5, G1	Fig. 8,3; Fig. 8,4
R8	1	Internally-bevelled	Ovoid	None	C5	Fig. 8,8
R9	1	Internally-bevelled	Ovoid	Diagonal oval impressions	C5	Fig. 8,15
R10	1	Flat-topped	Convex	Double twisted cord impressions: horizontal lines and chevrons	CG3	Fig. 8,2
R11	1	T-shaped	Unknown	None	G1	Fig. 8,5
R12	1	Rounded	Unknown	Tooled horizontal lines	G1	None
R13	1	Squared	Open, straight-sided	FT/FN impressions in band around upper wall, diagonal impressed line around lower wall	G1	Fig. 8,6
R14	1	Flat-topped	Neutral	Tooled horizontal lines/ ripples	C6	Fig. 8,7
R15	1	Flat-topped	Convex	Two bands of FT/FN impressions	G1	Fig. 8,9

similar to the twisted cord motifs of Figure 8, 2, and a body sherd with a fingertip and nail-impressed cordon (ditch 672).

The vessels varied in diameter from 100mm to 350mm. Three vessels were small in size, 100−130mm, and included one with a flat-topped, upright rim, one of unknown profile with flat-topped flared rim, and two vessels of ovoid profile with internally bevelled rims. There was one medium-sized bowl of 160mm diameter. Five vessels of 200−220mm diameter were classed as large, four of these had internally bevelled rims and convex, neutral or ovoid profiles, and one was flat-topped and of neutral profile. Two vessels were very large, 250−340mm in diameter, with upright, flat-topped rims.

Curvilinear ditch 668

The pottery deposited in ditch 668 was concentrated in the northern terminal (81% by count; Table 4).

Most of the sherds from the large coarseware jar with twisted cord decoration (Fig 7, 1) came from this northern terminal. However, two body sherds recovered from the vicinity of Section 2, towards the centre of the feature, may also derive from this vessel. Despite the number of pieces (307 sherds, 5004g) very little of the profile could be reconstructed. It had a flattened rim top, externally thickened but more irregular internally, varying from squared to thickened. Immediately below the rim the vessel was decorated with seven to eight horizontal bands of double cord impressions. These were irregular in their execution and only occasionally parallel. Below this decorative zone, the vessel appears to have been plain. The rim diameter was 340mm and the wall thickness was 10−13mm.

The jar had been coil built, with the joins clearly visible on some sherds (Fig 7, 1). The exterior and much of the interior were oxidised, although unoxidised areas exist at least on the upper part of the vessel, while the core was unoxidised. Part of the vessel appears to have been subject to considerable heat causing some areas to become fully oxidised throughout (54 sherds, 672g), and the exterior surfaces of others to become grey or pink in colour (59 sherds, 1069g).

At least eight other vessels are represented amongst the sherds from the northern terminal of the ditch. Two, a slack-shouldered jar/cup with an out-turned rim, decorated with impressed diagonal lines (R7, Fig. 8, 3), and the lower walls of a small, grog-tempered vessel, possibly a cup, were quite small. The other vessels were represented by small rim or body fragments, and include a flat-topped, T-shaped rim from a relatively thick-walled vessel (R11; Fig 8, 5), an in-turned rim with bevelled top (R8; Fig 8, 8), a rounded rim fragment (R5 form, C2 fabric), a small, internally bevelled rim sherd from an ovoid jar (R6, CG1), an upright, flat-topped rim, highly abraded and broken at the neck but possibly decorated with two impressed/tooled lines (R7), and two rounded rim top fragments (R5 and R12). Two grog-tempered body sherds from the northern terminal of ditch 668 were found to join and came from a vessel decorated with an impressed, alternating chevron pattern (Fig 8, 10). Another body sherd revealed a motif of tooled horizontal lines with short, alternating diagonal impressions (Fig 8, 11).

The highly decorated jar in a fine, calcite and grog-tempered fabric (CG3; R10; Fig 8, 2) came from the northern terminal and the southern terminal. It had a flat-topped, slightly externally expanded rim, 350mm in diameter, a gentle concave neck and slack convex profile. It had been decorated with three horizontal bands of double twisted cord impressions below the rim, then a band (50mm wide) of chevrons, below which were at least four horizontal bands of double twisted cord. One sherd with handle scar (strap/lug?) had very similar decoration and appeared to originate from the same vessel (Pottery Record Number (PRN) 169). Patches of soot were present on the exterior. The decorative scheme is identical to a vessel from Trevisker in Cornwall (ApSimon and Greenfield 1972, fig. 16. 30). A flattened and internally bevelled rim fragment, probably from a small vessel of ovoid profile, also came from the southern terminal (PRN 182).

A slot through the central area of ditch 668 produced squared, flat-topped rims from four different vessels and one rounded rim. Two of the flat-topped rims came from neutral or open-profiled vessels, one decorated with irregular, impressed, horizontal lines (Fig 8, 7), and one with a band of fingernail impressions just below the rim and at least one impressed diagonal line on the mid/lower wall (Fig 8, 6). Two had in-turned rims and probably quite gentle convex profiles, both decorated with fingernail impressions (Fig 8, 4 and 9). The fifth, rounded rim fragment was also decorated in this way.

Other features

The second largest group of pottery (by count) came from ditch 672, but was dominated by small

flakes of pottery and only one small, rounded rim fragment (R7, PRN 127). The third largest group, from ditch 674, produced only one featured piece, a grog-tempered sherd decorated with horizontal and diagonal (probably chevrons) impressed lines (Fig 8, 16). Ditch 670 contained a small group of a similar character to that from ditch 668. Most are in a coarse, calcite-gritted fabric (C1), although a fairly straight-sided vessel with an internally bevelled rim was made in a limestone and grog-tempered ware and decorated with a band of fingertip impressions (R2; Fig 8, 13). The other vessels included one with a flat-topped, internally bevelled rim, pinched and externally expanded, decorated with at least three bands of impressed cord (R3; Fig 8, 14), and a flat-topped rim, externally expanded and internally bevelled, from a jar of convex profile, decorated with a band of quite small fingertip/fingernail impressions below the rim (R1; Fig 8, 12). A very similar rim was also recovered from adjacent ditch 679 and may have originated from the same vessel (R1, PRN 134). Other vessels from ditch 679 comprise one with a squared, internally bevelled rim, decorated with small, oval-shaped impressions (R9; Fig 8, 15), and an undiagnostic flat-topped rim fragment (R7, PRN 113). Only one other feature produced a rim or decorated sherd, an internally bevelled rim in a grog-tempered fabric from ditch 673 (R2, G1, PRN 252).

Discussion

The Middle Bronze Age ceramics belong to a wider ceramic tradition commonly known as Trevisker pottery, typified by the assemblage recovered from the type site in Cornwall (ApSimon and Greenfield 1972). It appeared in Cornwall during the Early Bronze Age and was adopted across Devon, and parts of Somerset, south Wales and West Dorset during the Middle Bronze Age. ApSimon and Greenfield (1972) classified this assemblage into four styles based on fabric, form, decoration, firing and finish, suggesting a chronological progression from the impressed cord decoration of Styles 1 and 2 to the incised and fingertip/nail impressions of Styles 3 and 4. Later re-classification by Parker Pearson (1990) considered not only form and decoration but also size, identifying a significant correlation between height and rim diameter, resulting in five different styles. His largest vessels were handled, decorated with twisted cord impressions and thought to relate to storage and hold a symbolic status (Style 1). Bucket-shaped vessels with up to four lugs and impressed cord decoration present only just below the rim were slightly smaller and may have been used as storage vessels or for cooking (Style 2). Smaller vessels were thought to relate to eating and drinking, and displayed incised or stamped decoration (Styles 3/4), impressed cord decoration (Style 5) or were plain (Style 6). Two other categories were added by Woodward and Cane (1991) following analysis of the assemblage from Trethellan Farm, Newquay: large, plain jars (Style 1A) and small vessels decorated with fingertip/nail impressions (Style 6A). Parker Pearson (1995, 91) concluded the styles related to functional rather than chronological variation, although the application of these styles to the assemblage from Trethellan Farm indicated that some variation probably was due to chronological differences.

The elaborate decorative scheme of the vessel from ditch 668 (Fig 8, 2) is identical to that on a Style 2 vessel from Trevisker (ApSimon and Greenfield 1972, fig. 16. 30). The impressed cord motif was described as a 'multiple running chevron' and the most elaborative in this class (*ibid*., 326). The latter Trevisker vessel had been deposited complete in a ditch associated with a structure (House A). A radiocarbon determination from an oak sample from the floor of this house was calibrated to 1490−1310 BC (ApSimon and Greenfield 1972, 356). The vessel is also paralleled at Yes Tor Bottom, Walkhampton, Devon (*ibid*., 338) and the motif is present on a vessel of similar profile, but different rim form, from Trethellan Farm (Woodward and Cane 1991, fig. 43.18). At least two other vessels from Queen Camel had been decorated with horizontal bands of twisted cord impressions. A similar zone of decoration was found on vessels from Tredarvah, Cornwall, although here created with plaited rather than twisted cord, and bordered by a band of fingertip impressions (Pearce and Padley 1977, fig. 12, 1 and 5).

The Queen Camel assemblage also incorporates vessels decorated with incised lines and fingertip/nail impressions. The overlapping lines of the chevron motif (Fig 8, 10) is again similar to vessels from Trevisker (ApSimon and Greenfield 1972, fig. 18.48 and fig. 19.56) and Trethellan Farm (Woodward and Cane 1991, fig. 42.14), but at these sites the chevrons point downwards, whilst in the Queen Camel example they alternate between up and down. The grooved decoration on the neutral-profiled vessel from ditch 668 (Fig 8, 7) is similar to that on a vessel from Trethellan Farm (Woodward and Cane 1991, fig. 48.44). A

fingertip/nail impressed cordon from Queen Camel is paralleled at Brean Down (Woodward 1990, fig. 92.53) and Norton Fitzwarren (Woodward 1989, fig. 18.15), but is a trait that is closer to the Deverel-Rimbury style of the Wessex region rather than the south-western Trevisker style. Comb-stamped decoration, recorded at Trethellan Farm, was not recorded here.

The Queen Camel vessels appear to be more wide-ranging in terms of the range of decorative techniques and motifs than the other Trevisker style assemblages from Somerset. Decoration on the Brean Down pottery was predominantly incised hatching, chevrons and lines, with few examples of twisted cord impressions or fingertip impressions. The Norton Fitzwarren material includes a greater number of cord decorated vessels than Brean Down but not to the same complexity as the vessels from Trevisker. Other decorative techniques on the Norton Fitzwarren pots included incised lines and chevrons, and fingertip/fingernail impressions. The Queen Camel assemblage also has a fairly even quantity of internally-bevelled and flattened rim types, whilst the Brean Down rims are predominantly flattened, although internally bevelled rims were also present, and the Norton Fitzwarren rims lack the internal bevelling and are characterised by flattened, flattened and expanded and out-turned types (Woodward 1989, 49).

The gabbroic clay of the Lizard Peninsula was frequently utilised to make the Trevisker vessels from Cornwall. Whilst this provides a source for some of the vessels, it has now been suggested that the gabbroic clay was moved in its raw state to other parts of Cornwall and mixed with other rock inclusions or clays (Quinnell 2010, 96; Quinell 2012). Fabrics containing granitic or greenstone inclusions were also used (Parker Pearson 1995, 96). In Devon, Trevisker series vessels were made from a range of fabrics, including those gritted with greenstone and other rock fragments, with inclusions of dolerite and spilite (Parker Pearson 1990, 17), Permian volcanic rock, grog or the gabbroic clay (Quinnell 2012, 163−4). Beyond Devon and Cornwall, Trevisker style vessels are found in a range of fabrics containing inclusions of quartz, grog and flint (Parker Pearson 1990, 20). The assemblages of Trevisker style pottery from Brean Down and Norton Fitzwarren were predominantly grog-tempered, with smaller quantities of felspathic tuff, quartzite (Norton) and limestone (Brean Down), but all are likely to represent local manufacturing (Woodward 1989, 50), with the exception of the felspathic tuff from the volcanic rocks of Beacon Hill, Shepton Mallet (Williams 1989, 53). The Trevisker style vessels from Queen Camel include those made from grog-tempered fabrics, grog and calcareous wares, calcite-gritted fabrics and a limestone and grog-tempered fabric. Parker Pearson (1995, 98) examined some of the hypotheses on the adoption of this ceramic tradition across the South-West. He suggested that the variation in the fabrics of the Trevisker style pottery 'should be understood in terms of belonging and identity' and relate to kinship or ethnicity rather than competing markets (*ibid*, 98.). Further excavation in the Somerset area may shed light on the differential use of this style in the region.

The pottery from Queen Camel appears to be restricted its temporal range, unsurprisingly as most sherds came from a single feature. Bayesian modelling of three radiocarbon dates from this feature suggest it was infilled over a period of 30−245 years, probably during the 15th century BC (see Barclay, below). The Queen Camel assemblage is therefore much earlier than the settlement at Brean Down where radiocarbon dating indicated a date in the later stages of the Middle Bronze Age. Radiocarbon dating from Trethellan Farm, Cornwall (Nowakowski 1991) suggested the site was in use for perhaps 300 years during the 15th to 13th centuries BC. The Queen Camel assemblage is too small to present any statistically meaningful correlations between form, fabric, decoration and vessel size, but it does demonstrate contemporaneity in the use of grog-tempered and calcite-gritted wares, of impressed cord decoration and incised and fingertip/nail decoration, and the adoption of this ceramic style by the 15th century BC in south-east Somerset. Woodward (1989, 50) notes the Norton assemblage is more similar to the Trevisker pottery of the south-west than Brean Down, yet the Queen Camel assemblage is perhaps closer still. Interestingly, there was little Trevisker style pottery recovered from the South Cadbury environ sites, located within 5km of Queen Camel, although there were occasional examples of internally bevelled rims, twisted cord decoration or geometric motifs, but on the whole the Middle Bronze Age pottery from these sites shared few affinities with the pottery from the South-West (Tabor forthcoming). Furthermore, no Trevisker style traits were noted in the Middle Bronze Age assemblage from Field Farm, Shepton Mallet (Morris 2009), the pottery instead showing

affinities with the Deverel-Rimbury tradition of this period, although this is a smaller assemblage.

The deposition of most of this assemblage in a single feature is interesting and perhaps relates to the 'closing' of the site, while the deposition of parts of the highly decorated jar (Fig. 8, 2) in both the northern and southern terminals of ditch 668 may have been purposeful and of relevance here. Similarly, the large, cord decorated storage jar (Fig. 7) was partly burnt, but this is unlikely to be from its original firing as there were no other indicators of this such as warping of the form or spalling of the surface, and thin sectioning suggests the original firing temperature was less than 750°C (Quinn 2016). Alternatively, the vessel may have been damaged during a fire, accidently or purposefully. The practice of the burning of Early Iron Age roundhouses and the deliberate deposition of their vessels has been documented elsewhere (Brown 2012, 99). The burning of vessels may also result from more mundane processes including incorporation in a domestic hearth, bonfire or perhaps association with a midden (Tyler and Woodward 2013, 42).

List of illustrated vessels

Curvilinear ditch 668

1. Large jar with flat-topped rim, externally thickened, irregularly thickened on interior. Upright neck and rounded body. Decorated with multiple, irregular horizontal bands of double twisted cord impressions, partially burnt. R4, GV1, illustrated profile is PRN 22-26, contexts 353 and 356, intervention 349.
2. Large jar with flattened, slightly flared rim, convex profile, decorated with horizontal bands and chevrons of double twisted cord impressions. Irregularly fired exterior, unoxidised core and interior. R10, CG3, PRN 164-172, contexts 428 and 429, intervention 426, and context 456, intervention 349.
3. Small vessel with out-turned rim, upper body decorated with diagonal impressed/scored lines, unoxidised throughout, R7, G1, PRN 191, context 453, sample 90, intervention 349.
4. Small vessel with flat-topped rim and band of fingernail impressions around upper exterior. Profile uncertain but probably had gently convex walls. Oxidised throughout. ON 10, PRN 218, R7, G1, context 244, intervention 232.
5. T-shaped rim. Oxidised exterior and interior surfaces, unoxidised rim top and core. R11, G1, PRN 181, context 527, intervention 349.
6. Bowl with squared rim and straight sides, decorated with a band of fingertip and fingernail impressions, oxidised surfaces, unoxidised core, R13, G1, PRN 217, context 244, part of ON 10, intervention 232.
7. Neutral-profile vessel with flattened rim top. Grooved bands around the exterior create a 'rippled' effect. Irregularly fired exterior, unoxidised core, oxidised interior. R14, C6, PRN 229, context 244, intervention 232.
8. Ovoid jar with internally-bevelled rim. Fully oxidised. R8, C5, PRN 106, context 455, intervention 349.
9. Convex-profile jar with flattened rim, internal surface missing, external surface decorated with two rows of fingertip/fingernail impressions. Oxidised interior and core. R15, G1, PRN 228, context 245, intervention 232.
10. Body sherds decorated with impressed diagonal lines creating an alternating chevron pattern. Irregularly fired, G1, PRN 230 (context 523) and PRN 231 (context 536), intervention 349.
11. Body sherd decorated with tooled horizontal rows and alternating diagonal impressions. Unoxidised throughout. G1, PRN 153, sample 104, context 456, intervention 349.

Other features

12. Jar with internally bevelled rim and convex profile, decorated with a band of fingertip/fingernail impressions. Unoxidised throughout. R1, C1, PRN 1, context 475, intervention 471, ditch 670.
13. Vessel with neutral profile and internally-bevelled rim. Slight sooting on upper exterior, unoxidised. R2, LG1, PRN 11, context 473, intervention 471, ditch 670.
14. Convex-profiled vessel with internally-bevelled rim, pulled/expanded on the exterior. Decorated with at least three horizontal bands of cord impressions. Unoxidised throughout. R3, C5, PRN 13, context 473, intervention 471, ditch 670.
15. Vessel of ovoid profile with internally bevelled rim. Decorated with a band of small, diagonally orientated oval impressions. Oxidised exterior, unoxidised interior and core. R9, C5, PRN 114, context 565, intervention 564, ditch 679.
16. Body sherd decorated with impressed horizontal and diagonal lines. Unoxidised, G1, PRN 236, context 649, intervention 646, ditch 674.

Romano-British

The assemblage comprised 471 sherds (6118g), recovered from 73 contexts. Only six features (ditches 70, 72, 390, 665, 669 and 671) contained groups of more than 30 sherds, and together accounted for 77% of the Roman assemblage by count and 84% by weight. Twelve sherds (37g) came from non-linear features. The pottery ranges in date

from the late 1st century AD through to the 4th century AD, with late Roman pottery recorded from the above mentioned ditches with the exception of ditch 72.

Imported and British finewares

The imported component of the assemblage is small, comprising 11 body and base sherds (71g) of samian from eight contexts; two sherds were unstratified. Late Romano-British British finewares were drawn from the New Forest and Oxfordshire kilns. They include body sherds from a red colour-coated Oxfordshire mortaria (ditches 70 and 390) and a sherd from a bowl (ditch 70; Young 1977, C51). Body sherds from indented beakers manufactured by the New Forest industries were recorded from ditches 70, 332 and 671.

Oxidised wares

A small amount of Verulamium region white ware was recovered from ditches 390 and 665. Few other oxidised sherds were noted, but include nine body sherds of a white-slipped redware. The oxidised pieces probably derive from flagon forms.

Reduced wares

The Roman pottery was dominated by Black Burnished wares from the Poole/Wareham area of south-east Dorset, accounting for approximately half of the assemblage (Table 6). This is comparable to sites such as Lyde Road, Yeovil (Wessex Archaeology 2015a). The range of vessel forms present include cooking pots (everted rim jars) of the early and late Romano-British phases (Seager Smith and Davies 1993, types 1/2 and 3/4), flat-rimmed bowls of 2nd-century or later date (*ibid*. type 22), late Roman drop-flanged bowls (*ibid*, type 25) and the more generic plain-rimmed dishes (*ibid*. type 20). Small jar forms included a probable type 8 from ditch 72 and a type 9 from ditch 390. The complete profile of a bead-rimmed bowl with low pedestal base (ON 1) was recovered from ditch 72. It was unoxidised, with very smooth, burnished surfaces, and a burnished wavy line at the wall/base junction. This form of bowl was manufactured during the 1st century AD, however similar styles of vessels were also made as lids and had a greater currency. A 2nd-century bead-rimmed bowl (*ibid*, type 13) also came from this ditch.

A much smaller quantity (14 sherds, 360g) of Black Burnished ware from sources in the south-west, probably around Exeter, was also identified. Identifiable forms comprised a small jar with beaded rim (late 1st century to AD 110), a flat-rimmed dish with grooved rim (2nd century or later), part of a bowl/dish with a groove around the lower wall, and a flat-rimmed bowl with a leaf motif on the flange (Fig 9, 1), a copy of a samian form, all from ditch 72; a bead-rimmed dish with lattice decoration and a black slip (AD 90−120) came from ditch 70.

Other south-western fabrics included two sherds (87g) of Southwest greyware A (Seager Smith 1999, 310, fabrics Q103 and 123) and 13 sherds (159g) of the fine South-Western micaceous greyware. The former is thought to have been produced in the Norton Fitzwarren area, near Taunton, during the 2nd to 4th-centuries AD (Timby 1989, 54), while the Yeo Valley has been suggested as a likely source for the latter (Leech 1982, 141–2). This fabric is well

TABLE 6 – QUANTIFICATION OF ROMAN POTTERY, BY WARE (NUMBER/WEIGHT IN GRAMMES)

Ware	Number	Weight (g)
Imported wares		
Samian	9	64
British finewares		
New Forest colour-coated ware	11	134
Oxfordshire colour-coated ware	4	126
Micaceous greyware (unsourced)	1	82
SW micaceous fine sandy ware	13	159
Oxidised wares		
Verulamium region whiteware	10	101
White-slipped redware	9	40
Oxidised ware	8	50
Coarsewares		
SE Dorset Black Burnished ware	268	3046
Greyware	66	903
Sandy	55	931
SW Black Burnished ware	14	360
Savernake ware	1	35
SW greyware A	2	87
Total	**471**	**6118**

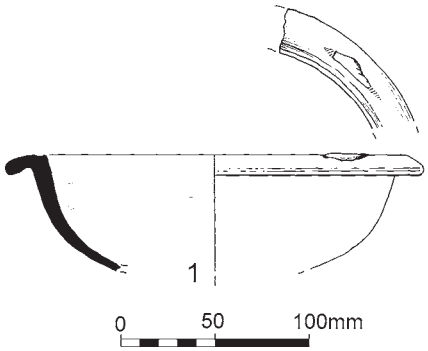

Fig. 9 Romano-British pottery

paralleled in the area (Bidwell 1979, 193; Leach 1982, 142; Leech 1982, 156; Seager Smith and Davies 1993, 283; Seager Smith 2005, 35), its date range extending from the late 1st-to 2rd-centuries AD, possibly continuing into the 3rd century. Few forms in the micaceous greyware were identifiable, however they included a probable flat-rimmed dish with grooves around the lower exterior, a body sherd with traces of rouletted decoration and a small rim fragment from a probable 1st-to 3rd-century dish. Six sherds (30g) in a fine, sandy micaceous fabric probably from local sources were also recorded.

Other coarsewares were dominated by greywares, presumed to be from a range of local sources potentially including Shepton Mallet (Swan 1984, mf5.594; Evans 2001, 111), Congresbury (Swan 1984, mf4.584–5), the Huntspill area of the Brue valley (Leech 1982, 153), the Yeo valley and possibly Ilchester (Leech 1982, 141–2). The vessels include a round-bodied jar from ditch 70, with short, everted rim and lattice decoration, of early to middle Roman date. Deposits of soot on the exterior of the vessel suggest it was used as a cooking pot. A grooved rim bowl of 2nd century AD date or later came from ditch 663 and a jar with upright, narrow neck, everted rim and lid seating (cf Seager Smith and Davies 1993, type 62) was recorded from ditch 390. Amongst the unsourced sandy wares is the upper and middle part of a narrow necked jar with upright rim and one handle (ON 2). The body appeared to be quite globular; traces of external burnish were noted. The unoxidised fabric contained some calcareous inclusions. One sherd of grog-tempered pottery from the Savernake industry in Wiltshire, dating from the 1st- to 3rd-centuries, came from ditch 44.

Discussion

The Romano-British assemblage provides evidence of activity from the 1st century AD through to the late 3rd or 4th centuries, although it is not possible to ascertain if this represents continuous occupation. The pottery is fairly typical of a rural settlement in this region, with samian representing 2.2% of the number of sherds and limited access to products from other industries indicated by the presence of sherds of Verulamium region whiteware; a colour-coated ware bowl and mortaria from the Oxfordshire kilns and beakers from the New Forest industry. Most of the coarseware vessels were drawn from the Black Burnished ware industry of the Wareham/Poole Harbour area of Dorset, but supplemented with products from other Black Burnished ware sources in the Exeter area, including an unusual bowl with leaf motif on its flange. Small quantities of other coarsewares represent products of local industries in the Somerset area.

Post-medieval

Two sherds (7g) of a post-medieval sandy ware with green glaze were recovered from pit 659 and intercutting pit group 158.

Other finds – Bronze Age

by Grace Perpetua Jones

A copper alloy rod fragment of circular section, 25mm in length but broken at both ends, 4mm in diameter, was recovered from Middle Bronze Age ditch 666.

Two stone objects were found in Middle Bronze Age curvilinear ditch 668. These comprise a small, sandstone rubber, pounder or grinder, roughly circular in shape with areas of wear (ON 12), and part of a fine-grained sandstone whetstone.

The tip of a bone pin/needle was also recorded from ditch 668. The fragment was from the polished, tapering shaft of the object but was too incomplete to ascertain the type of bone from which it had been fashioned.

A total of 1050 pieces of fired clay, weighing 7978g, was recovered from the site. This included at least four perforated cylindrical weights from ditches 666 and 668, and one from pit 413. A complete example came from ditch 668 (ON 13; Fig 10, 1), weighing 1746g. It is 110mm high but ranges in diameter from 111–119mm at one end to 115–130mm at the other end. This wider end appears to have been subjected to heat, bloating and blistering on one side and blistering on the other. The perforation is small, 18–21 mm wide at the

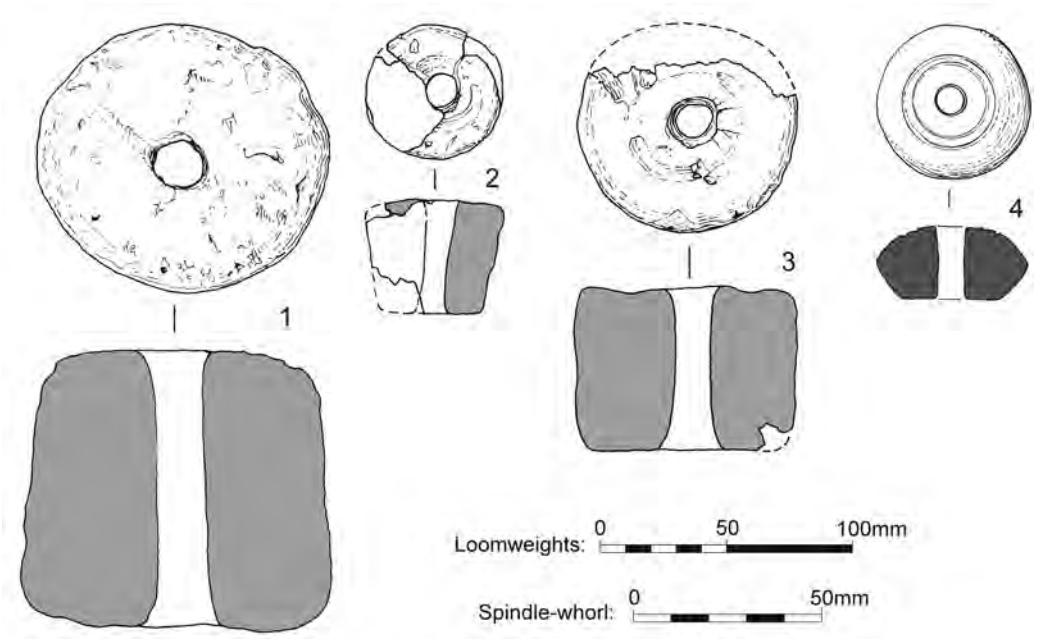

Fig. 10 Other finds. Ceramic loomweights (nos 1–3) and shale spindle-whorl (no. 4)

bloated end and 22–23 mm wide at the other end; it is slightly off centre. The non-bloated end was unoxidised, presumably from sitting on this end whilst being fired. The other cylindrical weights from this ditch were incomplete and smaller. One was at least 84mm in height but the diameter could not be reconstructed (ON 14); the other was 95mm in diameter but the height is unknown. Three joining fragments forming a small cylindrical loomweight were found in ditch 666 (Fig 10, 2). This object measures 47mm in height, 55mm in diameter and has a central perforation of 18mm. It had been made from a grog-tempered fabric, was irregularly fired, one end was unoxidised. The loomweight from undated pit 413 (ON 15; Fig 10, 3) was cylindrical in shape, 61mm high, 88mm in diameter, with a 19mm diameter perforation. It was grog-tempered and irregularly fired, with one unoxidised side.

Cylindrical, perforated weights were used in textile manufacture during the Middle to Late Bronze Age, to provide tension on a warp-weighted loom. Examples include the Late Bronze Age site at Aldermaston (Bradley *et al*. 1980, fig. 19, 5). The complete cylindrical object from Queen Camel is larger than typical loomweight and may alternatively have been used as a roof weight. The evidence of burning on the object may have resulted from a house fire, however recent analysis of a cylindrical perforated fired clay object from the Late Bronze Age site at Tinney's Lane, Dorset, has suggested that such objects may have been used as kiln or oven furniture (Tyler and Woodward 2013, 53).

A very small amount (8g) of fuel ash slag was recovered from Middle Bronze Age curvilinear ditch 668. There is no evidence that this is of metallurgical origin and it most likely derives from the vitrification of clay, for example daub, at high temperature (Bayley *et al.* 2001, 21).

Other finds – Roman

by Grace Perpetua Jones

A small quantity of Romano-British metalwork was recovered but included a fragment from the copper alloy catchplate of a brooch (ON 27, unstratified); eight iron nail fragments (ditches 70, 547, 663, 665, 671 and pit 158) and a small piece of lead sheet waste from crop-dryer 147. A lead rivet used to mend a ceramic vessel was unstratified.

A glass rolled-in rim (Price and Cottam 1998, fig. 1.5) from a jug/bottle with ribbed ribbon handle attached to the top of the rim, was recovered from late Roman ditch 70. It had been made from a pale

blue/green glass but was too small to be precisely identified.

A shale spindle-whorl of lenticular section, 40mm in diameter, came from late Romano-British ditch 70 (Fig 10, 4). It probably originated from the shale industries of Kimmeridge, Dorset, and is similar to examples from Exeter (Allason-Jones 1991, fig. 126.25) and Ilchester (Leach 1982, fig. 103.6). A small rounded pebble (20mm diameter, 4g), from Roman ditch 72, may have been used as a gaming counter.

Part of a flat slab of fired clay, 80mm x 40mm, was recovered from late Romano-British ditch 70. One surface was rough, the other had a smooth texture with a white residue, possibly indicating that it derived from a salt working.

Glass bead

by Alison Sheridan

A complete annular bead of turquoise blue glass with central wide thread-hole; diameter 6.4−6.6mm, thickness 3.3mm, hole diameter *c.* 3.6mm (Fig. 11) was recovered from Middle Bronze Age curvilinear ditch 668. However, its small size and location, in the upper fills of the ditch, means that it is very almost certainly intrusive. It is well made, with near-imperceptible surface ridging relating to its manufacture by winding glass around a former. The bead was analysed using an XG Lab CRONO X-ray fluorescence spectrometer, and found to contain an appreciable amount of copper (which will have given it its colour) along with smaller amounts of iron and potassium (Sheridan 2017). The bead was examined by Heather Christie and Dr Ewan Campbell of Glasgow University, who confirmed that it is of Roman or post-Roman first millennium AD date, and therefore wholly unrelated to the Bronze Age activity in the area. It is lighter in colour than many Roman blue glass beads, but in shape and quality of manufacture it is characteristic of Roman and post-Roman first millennium beads.

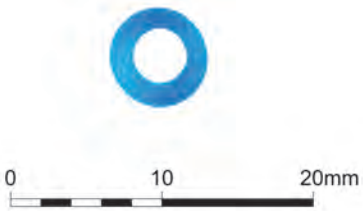

Fig. 11 Glass bead

Building Materials

by Grace Perpetua Jones and Ruth Shaffrey

A small quantity of Romano-British building material was recovered, mostly from late Romano-British ditch 70. This included three fragments (441g) from ceramic roofing tiles (*tegula* and *imbrex*), and four fragments of wall plaster or external render. The latter had a painted white/cream coloured surface on a base of crushed ceramic building material in a pinkish buff mortar matrix with a buff base layer, a total of 35mm thick. Stone building material from ditch 70 comprised two perforated slabs of Blue Lias that may have been used as roofing tiles; three pieces from Lias building blocks (included a shaped triangular piece 240 x 170 x 80mm, 5kg) and a very large piece (220 x 150 x 170mm, 13kg) from a Middle Jurassic limestone block. A slab of White Lias with scored lines on both surfaces, recovered from ditch 675, may be a *tesserae* blank. A slab of Blue Lias with straight edge, from ditch 70, may also have been used in *tesserae* manufacture.

Slag

by Phil Andrews

A total of 5880g of iron smithing slag was recovered, most coming from late Roman ditch terminal 390 (5.3kg). The debris is relatively fresh and unabraded, so it may represent a discrete dump relating to smithing activity in the vicinity, almost certainly relating to the nearby villa. Most of the material is fragmentary, fairly vesicular and with no distinguishing features, though a small number of pieces have hearth lining attached. There is also one complete smithing hearth bottom, the hemispherical bun-shaped agglomeration of slag that formed in the base of a smithing hearth, and a fragment of another. The complete example measures 130 x 100 x 65mm and weighs 538g, and the fragment >65 x 115 x 35mm (273g). Small groups of material came from Roman ditches 665 (347g; one piece with hearth lining attached) and 70 (191g), but no other feature contained more than 20g of slag.

Roman Coins

by Nicholas Cooke

There are 13 copper alloy coins, all issues of the late Roman period; most were unstratified metal detector finds. In general, they survive in good condition, with all but two attributable to period. A small number show signs of post-depositional corrosion, whilst others show evidence of pre-

depositional wear. The two coins which could not be closely dated (ONs 25 and 29) are considered likely to be late Roman (late 3rd or 4th century AD), on the basis of their size and shape.

The remaining coins all belong within the late 3rd or 4th centuries AD. The earliest (ON 16) is an irregular copy of a radiate *antoninianus* dating to *c*. AD 270–296. These contemporary copies of 'official' coinage were possibly struck to compensate for gaps in supply of coinage to Britain and to provide sufficient small change for the province's needs. It is unclear whether these copies were officially sanctioned, if at all, but they are not uncommon as site finds, and seem to have circulated in the same fashion as the officially struck coins.

The 4th century AD coins are all common types, and indicate activity on the site throughout the first two-thirds of the 4th century AD. They are dominated by coins of the AD 330s and AD 360s, as is typical of British assemblages, but the presence of two coins of the first third of the 4th century (ONs 6 and 28), indicates a continuity of activity and coin use from the late 3rd century at least until *c*. AD 375. The 4th-century assemblage includes a small quantity of contemporary copies, which, like the radiate copies of the late 3rd century AD, appear to have been tolerated, if not officially sanctioned. The absence of late 4th-century coins need not be significant in so small an assemblage, but may hint that the activity petered out at this time.

Animal bone

by Lorrain Higbee

The assemblage comprises 1700 fragments (or 12.822kg) of animal bone. The majority was recovered by hand during the normal course of excavation, with an additional small quantity retrieved from the residues of bulk soil samples. Once conjoins are taken into account the total falls to 1094 fragments. Bone was recovered from contexts of Middle Bronze Age and Romano-British date, mostly ditch fills but also the fills of gullies, pits, postholes and a waterhole (Table 7).

TABLE 7 – ANIMAL BONE, NUMBER OF IDENTIFIED SPECIMENS PRESENT (OR NISP) BY PERIOD. UD = UNDATED AND US = UNSTRATIFIED

Species	**Middle Bronze Age**	**Romano-British**	**UD/ US**	**Total**
Cattle	58	47	5	110
sheep/goat	63	25	13	101
Pig		25	1	26
Horse	1	8	3	12
Dog	3	1		4
red deer	1			1
domestic fowl		2		2
common frog	1			1
Total identified	*127*	*108*	*22*	*257*
Total unidentifiable	*582*	*197*	*58*	*837*
Overall total	**709**	**305**	**80**	**1094**

Methods

The following information was recorded where applicable: species, skeletal element, preservation condition, fusion and tooth ageing data, butchery marks, metrical data, gnawing, burning, surface condition, pathology and non-metric traits. This information was directly recorded into a relational database (in MS Access) and cross-referenced with relevant contextual information.

Results

Preservation condition

Gnaw marks were recorded on only *c*. 2% of fragments, and bone preservation varies from good to fair but was generally consistent within individual contexts. This is a general indication that bones came from secure contexts that do not contain residual material. Cortical surfaces are intact and details such as fine knife cuts are clear and easily observed. Burnt bone fragments were recovered from Middle Bronze Age ditches 666, 668 670, 674, fire pit 632, and Romano-British ditches 332, 547, 70 and 71.

Middle Bronze Age

A total of 709 fragments of animal bone were recovered from Middle Bronze Age ditches and pits, including enclosure ditches 666, 668, 670, 672, 674 and 679. Significant quantities of small unidentifiable bone fragments (*c*. 80% of the total) were recovered from ditches, a significant proportion of which were charred or calcined. Particularly high concentrations of burnt material were noted from ditch 668.

The assemblage is dominated by bones from sheep/goat and cattle which together account

for 95% NISP (Table 7). The range of body parts indicates that livestock were slaughtered on site for local consumption. Most of the sheep/goat and cattle bones are from adult animals however calf and lamb bones were also noted, and this is a general indication that livestock were reared in close proximity to the site, perhaps within the enclosures. A particularly large and robust first phalanx from ditch 670 has been identified as aurochs.

Other identified species include dog (three fragments), horse and red deer (one fragment each). The dog bones are all from the same ditch 668, and include a tibia and two metatarsals from the hindquarters of a small to medium-sized animal. Horse is represented by a second phalanx from pit 288 and red deer by a fragment of proximal femur shaft from ditch 679.

Romano-British

A total of 305 bone fragments were recovered from features of mid to late Romano-British date including ditches, gullies, pits and postholes. Approximately 35% of fragments are identifiable to species.

The assemblage is dominated by bones from livestock species (90% NISP), in particular cattle (44%). The range of body parts shows a slight bias towards waste elements from the primary butchery stage of the carcass reduction sequence. Cranial fragments were particularly abundant from some ditches, notably the large late Romano-British ditch 70 on the north side of the site. The assemblage of bones from this feature included several cattle and sheep horn cores one of which was from a ram. Cut marks resulting from removal of the outer sheath were noted around the base of a few of the horn cores, and this is clear evidence that horn was utilised. Axially split cattle long bones were noted from some contexts and these show signs of meat filleting. The butchery evidence indicated that cattle carcasses were extensively utilised, the last remnants of meat were stripped from bones and the bones themselves were processed for marrow-fat. Less common species identified from the Romano-British assemblage include horse, dog and domestic fowl.

Conclusions

The assemblages of animal bones from Middle Bronze Age and Romano-British features are small but broadly comparable to contemporary sites in the region in terms of animal husbandry. Approximately 11km to the south-east of Queen Camel is the Late Bronze Age settlement and pottery production site at Tinney's Lane in Sherborne where the livestock economy was one based on sheep-farming. The mortality profile for sheep indicates that they were extensively managed for meat with 50% of lambs slaughtered at less than 10 months of age (Higbee 2013, 66–7). A similar husbandry strategy is suggested by lamb bones from some of the enclosure ditches. The Romano-British assemblage also shares some common traits with general regional patterns notably the dominance of cattle and evidence for extensive use of beef carcasses. For example, cattle dominate the animal bone assemblages recovered from Ilchester, *c.* 9km to the west of Queen Camel, and the main administrative town (or *Civitas Capital*) and market for livestock in the local area during the Romano-British period (Levitan 1982, 269–70).

ENVIRONMENTAL EVIDENCE

Charred plant remains

by Sarah F Wyles

A total of 85 bulk samples from across the site were processed for the recovery of charred plant remains and wood charcoal from a range of features mainly of Middle Bronze Age and Romano-British date. As a result of the assessment a selection of 14 samples was made for further analysis of the charred plant assemblages.

These 14 samples break down into nine samples from Middle Bronze Age deposits (comprising six samples from curvilinear ditch group 668, one from curvilinear ditch group 674, one from ditch group 670 and one from fire pit 632), one from middle Romano-British ditch group 72, one from late Romano-British boundary ditch group 70, two from Romano-British crop-dryer 147 and one from Romano-British ditch 547.

Four charred plant remains were submitted for radiocarbon dating from Middle Bronze Age curvilinear ditch group 668 (see Barclay and Wyles, below These were the grape pip from an upper fill (350) of the northern terminal to establish whether or not it represents a very rare occurrence from the Middle Bronze Age, two samples from the upper (353) and lower (482) fills of the same terminal, which produced a relatively large assemblage of Trevisker type Ware, in order to refine the dating of this particular assemblage of pottery, and a single sample from a lower fill (429) of the southern terminal to provide a further check and refining of the Middle Bronze Age attribution of ditch 688.

Methods

The bulk samples for charred remains were processed by standard flotation methods; the flot retained on a 0.5mm mesh, residues fractionated into 4mm, 2mm and 1mm fractions. The coarse fractions (>4mm) 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, table 3), for cereals and with reference to modern reference collections where appropriate, quantified and the statistics presented in Tables 8 and 9.

The one exception was the sample from late Romano-British boundary ditch group 70 which contained a very high number of charred remains (approx. 17,350 items). In this instance the charred remains were extracted from the residues and from the 4, 2 and 1mm flot fractions but only from 10% of the 0.5mm flot fraction. The numbers of remains recovered from the 0.5mm fraction have been multiplied by 10 before being added to the remains from the other fractions. These estimated figures are prefixed by est. in Table 9.

Middle Bronze Age

Rich charred plant assemblages were recovered from seven of the samples from Middle Bronze Age deposits and moderate ones from the two of them from contexts 350 and 527 in the northern terminal of curvilinear ditch group 668.

Cereal remains were dominant in five of these samples, with grain being predominant in the sample from Section 1 of curvilinear ditch group 668 and chaff being most numerous in the samples from context 350 in the northern terminal of curvilinear ditch group 668, from curvilinear ditch group 674, ditch group 670 and fire pit 632. The weed seeds dominated the assemblage from context 428 in the southern terminal of curvilinear ditch group 668. Cereal remains and weed seeds were recovered in almost equal quantities in the assemblages from ditch Section 2, from context 527 in the northern terminal and context 429 in the southern terminal all of curvilinear ditch group 668.

The most numerous cereal remains were grain and chaff fragments of hulled wheat, emmer or spelt. There were higher numbers of chaff elements identifiable as being those of emmer wheat (*Triticum dicoccum*) than those of spelt wheat (*Triticum spelta*) in all these samples. Barley (*Hordeum vulgare*) was also present in all of the assemblages.

Other possible crops/food sources included seeds of celtic bean (*Vicia faba*) and possible flax (*Linum usitatissimum*), hazelnut shell (*Corylus avellana*) fragments and sloe (*Prunus spinosa*) stone fragments. The grape pip (*Vitis vinifera*) has proved to be intrusive within the assemblage and is of post-medieval/modern date, most probably 17th century.

The weed seed assemblages were dominated by seeds of vetch/wild pea (*Vicia/Lathyrus* sp.) and docks (*Rumex* sp.), together with moderate numbers of seeds of oats/brome grass (*Avena/Bromus* sp.), goosefoot (*Chenopodium* sp.), clover/medick (*Trifolium/Medicago* sp.), bedstraw (*Galium* sp.) and stitchwort (*Stellaria* sp.), all species typical of grassland, field margins and arable environments. There is a slight indication of the exploitation of a number of different soil types with a few seeds of henbane (*Hyoscyamus niger*) which favours sandier soils, of red bartsia (*Odontites vernus*) typical of heavier clay soils, of blinks (*Montia fontana* subsp. *chondrosperma*) and sedge (*Carex* sp.) found in wetter environments, together with the seeds typical of the lighter drier calcareous soils such as ribwort plantain (*Plantago lanceolata*) and narrow-fruited cornsalad (*Valerianella dentata*).

Romano-British

Large numbers of charred plant remains were recorded in the five analysed samples from Romano-British deposits, with an exceptionally rich assemblage recovered from late Romano-British boundary ditch group 70. All five samples were dominated by cereal remains with chaff elements being predominant in those from middle Romano-British ditch group 72, from late Romano-British boundary ditch group 70 and Romano-British ditch group 547, and grain in those from Romano-British crop-dryer 147.

The cereals remains from the ditch samples were mainly those of hulled wheat, with small numbers of those of barley and free-threshing wheat (*Triticum turgidum/aestivum* type). The majority of the hulled wheat chaff elements identifiable to species were those of spelt wheat, although low levels of emmer glume base fragments were present in the middle and late Romano-British ditch samples.

TABLE 8 – CHARRED PLANT REMAINS FROM MIDDLE BRONZE AGE FEATURES

Phase		Middle Bronze Age								
Group		Curvilinear ditch 668						Ditch 674	Ditch 670	
Feature Type		Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Fire pit
Feature		218	232	349	349	426	426	646	471	632
Context		221	244	350	527	429	428/429	650	475	634
Sample		24	33	39	230	86	160	166	117	168
Vol (L)		30	2	20	34	10	40	40	19	10
Flot size		175	80	25	135	60	160	90	135	50
Roots %		2	15	15	2	5	7	20	7	50
	Common Name									
Hordeum vulgare L. *sl* (grain)	barley	30	21	1	2	8	7	20	1	19
Hordeum vulgare L. *sl* (rachis frag)	barley	-	-	-	-	-	-	-	-	2
Triticum dicoccum (Schübl) (glume base)	emmer wheat	7	4	3	2	2	8	18	15	25
Triticum dicoccum (Schübl) (spikelet fork)	emmer wheat	10	1	1	3	5	7	7	10	4
Triticum spelta L. (glume bases)	spelt wheat	1	2	2	1	2	2	2	1	16
Triticum dicoccum/spelta (grain)	emmer/spelt wheat	42	9	1	9	12	20	24	5	3
Triticum dicoccum/spelta (spikelet fork)	emmer/spelt wheat	49	7	6	20	20	28	91	121	77
Triticum dicoccum/spelta (glume bases)	emmer/spelt wheat	47	25	17	29	25	64	98	130	407
Triticum sp. (grain)	wheat	-	-	-	-	1	2	3	-	2
Cereal indet. (grains)	cereal	140	55	3	15	70	75	75	15	35
Cereal frag. (est. whole grains)	cereal	60	30	4	10	30	35	30	6	12
Other Species										
Urtica dioica L.	common nettle	1	-	-	-	-	-	-	-	-
Corylus avellana L. (fragments)	hazelnut	1 (<1 ml)	1 (<1 ml)	-	1 (<1 ml)	-	2 (<1 ml)	-	-	-
Chenopodium sp.	goosefoot	15	4	1	1	7	3	-	1	7
Atriplex sp. L.	oraches	-	-	-	-	1	1	-	-	1
Montia fontana subsp. *chondrosperma(*Fenzl) Walters	blinks	-	-	-	1	2	4	-	-	-
Stellaria sp. L.	stitchwort	-	-	-	-	-	2	3	-	16

Persicaria lapathifolia/maculosa (L.) Gray/Gray	pale persicaria/redshank	21	1	-	-	5	6	-	-	5
Polygonum aviculare L.	knotgrass	1	-	-	-	2	1	-	-	2
Fallopia convolvulus (L.) À. Löve	black-bindweed	8	-	-	-	1	6	1	-	6
Rumex sp. L.	docks	31	86	4	8	48	38	50	21	35
Brassica sp. L.	brassica	-	-	-	-	-	1	2	-	2
Rosaceae thorns	rose/bramble type thorns	2	-	-	-	-	-	-	-	10
Rubus sp.	brambles	-	-	-	-	-	1	-	-	-
Prunus spinosa L.	sloe stone	-	4(<1 ml)	-	1 (<1 ml)	-	-	-	-	4 (1 ml)
Prunus spinosa L.	sloe stone + fruit	-	2 (<1 ml)	-	-	1	-	-	-	-
Prunus spinosa/ Crataegus monogyna (thorns/twigs)	sloe/hawthorn type thorns	3	-	-	-	1	2	4	1	10
Vicia L./*Lathyrus* sp. L.	vetch/wild pea	133	20	3	62	48	452	40	7	48
Vicia faba L.	celtic bean	2	-	-	4	2	3	13	1	2
Medicago/Trifolium sp. L.	medick/clover	9	-	1	-	-	-	18	-	14
Vitis vinifera L.	Grape-vine	-	-	1	-	-	-	-	-	-
Linum usitatissimum L.	flax	-	-	-	-	-	-	cf. 4	-	-
Torilis sp. Adans	hedge-parsley	-	-	-	-	-	-	2	-	-
Hyoscyamus niger L.	henbane	-	-	-	-	-	-	-	-	1
Plantago lanceolata L.	ribwort plantain	-	-	-	-	-	1	4	-	1
Odontites vernus	red bartsia	-	-	-	-	-	1	-	-	2
Galium sp. L.	bedstraw	6	1	-	1	10	26	3	8	3
Valerianella dentata (L.) Pollich	narrow-fruited cornsalad	-	-	-	-	-	1	1	-	-
Carex sp. L. trigonous	sedge trigonous seed	-	-	-	-	-	1	-	-	-
Poaceae culm node	grass	4	-	1	-	1	4	1	2	-
Lolium/Festuca sp.	rye-grass/fescue	-	-	-	-	-	-	2	-	2
Poa/Phleum sp. L.	meadow grass/cat's-tails	-	-	1	-	-	1	3	2	-
Avena sp. L. (floret base)	oat floret	-	-	-	-	-	-	-	-	3
Avena sp. L. (awn)	oat awn	-	-	-	-	-	1	1	-	-
Avena L./*Bromus* L. sp.	oat/brome grass	14	10	2	4	5	18	6	2	12
Monocot. Stem/rootlet frag		8	5	2	-	5	5	2	16	20
Bud		-	-	-	1	-	1	1	-	-
Parenchyma/Tuber		2	-	6	-	3	-	3	-	-

TABLE 9 – CHARRED PLANT REMAINS FROM ROMANO-BRITISH FEATURES

Phase		MRB	LRB	RB	RB	RB
Group		Ditch 72	Boundary ditch 70	Intercutting pits 158		
Feature Type		Ditch	Ditch	Crop-dryer		Ditch
Feature		13	4	147		547
Context		14	7	153	151	548
Sample		2	1	22	23	155
Vol (L)		18	19	20	20	10
Flot size		30	120	40	600	25
Roots %		30	7	40	5	30
% 0.5mm fraction analysed			10%			
	Common Name					
Hordeum vulgare L. *sl* (grain)	barley	6	5	78	89	2
Hordeum vulgare L. *sl* (rachis frag)	barley	2	2	-	-	-
Triticum dicoccum (Schübl) (glume base)	emmer wheat	3	est. 35	-	-	-
Triticum spelta L. (glume bases)	spelt wheat	38	est. 980	1	-	20
Triticum spelta L. (spikelet fork)	spelt wheat	1	16	-	-	-
Triticum dicoccum/spelta (grain)	emmer/spelt wheat	8	160	5	10	5
Triticum dicoccum/spelta (germinated grain)	emmer/spelt wheat	2	10	-	1	-
Triticum dicoccum/spelta (spikelet fork)	emmer/spelt wheat	40	est. 1280	-	1	12
Triticum dicoccum/spelta (glume bases)	emmer/spelt wheat	385	est. 13470	10	6	81
Triticum turgidum/aestivum (grain)	free-threshing wheat	cf. 5	27	cf.1	-	-
Triticum turgidum/aestivum (rachis frags)	free-threshing wheat	5	est. 515	-	-	2
Cereal indet. (grains)	cereal	45	180	125	85	15
Cereal frag. (est. whole grains)	cereal	20	85	80	40	6
Cereal frags (rachis frags)	cereal	-	10	1	-	-
Cereal frags (coleoptile/acrospire)	cereal	-	est.355	-	1	7
Other Species						
Corylus avellana L. (fragments)	hazelnut	-	3 (<1 ml)	2 (<1 ml)	-	-

Chenopodium sp.	goosefoot	-	1	-	-	-
Stellaria sp. L.	stitchwort	4	-	-	-	-
Persicaria lapathifolia/maculosa (L.) Gray/Gray	pale persicaria/redshank	-	-	-	1	-
Polygonum aviculare L.	knotgrass	1	2	-	-	-
Fallopia convolvulus (L.) À. Löve	black-bindweed	-	2	-	2	-
Rumex sp. L.	docks	4	est. 50	7	2	3
Brassica sp. L.	brassica	1	-	-	-	-
Raphanus raphanistrum L.	runch	7 caps + 12 frags	1 caps + 6 frags	-	-	-
Prunus spinosa/ Crataegus monogyna (thorns/twigs)	sloe/hawthorn type thorns	-	-	2	1	-
Vicia L./*Lathyrus* sp. L.	vetch/wild pea	35	34	12	3	9
Vicia faba L.	celtic bean	2	2	-	-	1
Medicago/Trifolium sp. L.	medick/clover	4	est. 16	-	-	6
Odontites vernus Dumort	red bartsia	1	-	-	-	-
Galium sp. L.	bedstraw	-	1	-	-	-
Valerianella dentata (L.) Pollich	narrow-fruited cornsalad	-	-	-	-	1
Tripleurospermum inodorum (L.) Sch. Bip.	scentless mayweed	2	est. 10	-	-	2
Carex sp. L. trigonous	sedge trigonous seed	2	-	-	-	-
Poaceae culm node	grass	-	3	2	-	-
Lolium/Festuca sp.	rye-grass/fescue	17	12	3	-	2
Poa/Phleum sp. L.	meadow grass/cat's-tails	3	est. 20	1	-	-
Avena sp. L. (grain)	oat grain	4	4	-	-	-
Avena sp. L. (floret base)	oat floret	1	1	-	-	-
Avena sp. L. (awn)	oat awn	15	est. 45	-	-	1
Avena L./*Bromus* L. sp.	oat/brome grass	29	11	12	4	5
Bromus sp. L.	brome grass	3	1	-	-	-
Monocot. Stem/rootlet frag		12	2	2	-	1
Parenchyma/Tuber		-	-	-	-	2
Triangular capsule frag		-	-	-	-	1
Egg shell		-	2	-	-	-

The assemblages contained grains with traces of germination and coleoptile/acrospire fragments.

The predominant cereal remains within the assemblages from crop-dryer 147 were barley grains. There were also small numbers of hulled and free-threshing wheat remains. The low levels of hulled wheat chaff fragments include one glume base identifiable as that of spelt wheat and none that were clearly those of emmer wheat. There was a small amount of evidence for germination.

Other possible crops/food sources again included a small number of seeds of celtic bean, hazelnut shell fragments, and a possible flax capsule fragment.

The weed seed assemblages, like in the Middle Bronze Age samples, were dominated by those of species typical of grassland, field margins and arable environments. These included seeds of vetch/wild pea, oat/brome grass, docks, rye-grass/fescue (*Lolium/Festuca* sp.), clover/medick and scentless mayweed (*Tripleurospermum inodorum*), and runch (*Raphanus raphanistrum*) capsules. There is a small indication of the exploitation of a number of different soil types such as sandier soils as well as the lighter drier calcareous soils. The heavier clay soils and wetter environments may also have been used during the middle Romano-British period.

Discussion

The presence of both emmer and spelt within the Middle Bronze Age assemblages is noteworthy. Although emmer wheat is the principal wheat species recorded from Middle Bronze Age sites, spelt wheat has been recovered from a number of Middle Bronze Age deposits including some at Brean Down, Somerset (Straker 1990), Princes Road Dartford (Pelling 2003) and Black Patch, East Sussex (Hinton 1982), whereas it has been dated to the end to the Early Bronze Age at Monkton Road Minster, Thanet (Barclay *et al.* 2011; Martin *et al.* 2012).

Emmer and spelt wheat, barley and celtic beans were also recorded in Middle Bronze Age assemblages at Brean Down (Straker 1990), but not in such high numbers as here.

The Middle Bronze Age assemblages appear to be mainly of general settlement waste. Those which were glume rich are likely to be indicative of waste derived from the dehusking of hulled grain stored as semi-cleaned grain or in spikelet form (Hillman 1981; 1984). Whereas the assemblage where weed seeds, in particular those of vetch/wild pea, outnumbered cereal remains may be the waste derived from an earlier stage of processing. This is namely when the crops had been harvested, threshed and winnowed, and coarse and fine sieved in preparation for drying prior to storage as semi-clean grain or spikelets.

The weed seeds species are dominated by those typical of grassland, field margins and arable environments, with an indication of the possible use of a variety of soils. There is also an indication of the exploitation of the hedgerow/scrub/woodland edge as a wild food resource. This was also seen at Brean Down (Straker 1990).

By the Romano-British period spelt wheat had become the dominant hulled wheat species in Southern Britain (Greig 1991). Spelt is more numerous than emmer or free-threshing wheat within the Romano-British assemblages at Queen Camel. Barley, celtic beans and flax were also present. Remains of spelt, emmer and free-threshing wheat were also recovered from Romano-British deposits at RNAS Yeovilton (Pelling 2006), while remains of spelt, emmer and free-threshing wheat, barley and celtic beans were recorded from Ilchester Great Yard excavations (Stevens 1999) and those of spelt, emmer and free-threshing wheat and barley from elsewhere in Ilchester (Murphy 1982) and from Catsgore (Hillman 1982).

The assemblages from the ditches at Queen Camel appear to be indicative of waste derived from the dehusking of hulled grain stored as semi-cleaned grain or in spikelet form, whereas those from the crop-dryer are likely to be more representative of the crop itself. Although the presence of germinated grain and coleoptile/acrospires can be seen as part of malting and the brewing process, the quantities here are not large enough to be a clear indication that the malting and brewing process was taking place in the immediate vicinity. The possibility of malting and brewing taking place on a number of Romano-British sites in the area has been suggested by the environmental results. There were hundreds of coleoptile/acrospires in a number of deposits believed to be associated with malting and the brewing process at Catsgore (Hilman 1982), while Murphy states that at Ilchester 'many of the wheat caryopses in these samples are distorted, having germinated before becoming carbonised' and that 'fragments of young plumules and primary roots detached from the germinated grains are common in most samples' (1982, 286). Possible evidence for malting was also suggested by the composition of several of the assemblages from Great Yard Ilchester (Stevens 1999).

As in the earlier period, the weed seeds species

are dominated by those typical of grassland, field margins and arable environments. There is a small indication of the possible use of a variety of soils. This was also seen in some of the assemblages from Romano-British deposits nearby such as at RNAS Yeovilton (Pelling 2006) and Ilchester (Stevens 1999). There is only evidence for the possible use of the heavier clay soils and wetter environments from the assemblage composition from middle Romano-British ditch 13 group 72.

The crops are likely to have been harvested by sickle as indicated by the presence of low growing species such as clover and medick together with the occurrence of twining species such as vetches/wild pea and black bindweed.

The charred plant assemblages appear to be indicative of waste material typical from a small rural settlement/farmstead. There was no indication of any exotic species or imports within the assemblages. Although remains of emmer wheat outnumbered those of spelt wheat within the Middle Bronze Age assemblages, the occurrence of spelt wheat is still noteworthy. During the Romano-British period spelt had become predominant. There is an indication of the exploitation of a number of different soil types in the locality for growing crops both during the Middle Bronze Age and Romano-British periods.

Charcoal

by Dana Challinor

Despite the large number of soil samples (85) taken for the recovery of the charred plant remains and wood charcoal during the excavations, few produced reasonable quantities of charcoal. Only six were submitted for analysis; four from the Middle Bronze Age ditches (curvilinear ditch group 668 and ditch group 670); and two from the Romano-British crop-dryer (group 157). The relative paucity of charcoal at the site reflects the nature of the contexts and fuel waste disposal practices.

Methodology

Charcoal >2mm in transverse section was considered for identification with 50 fragments (of variable size) randomly selected for identification from each sample. The charcoal was fractured and sorted into groups based on the anatomical features observed in transverse section at x7 to x45 magnification. Representative fragments from each group were then selected for further examination using a Meiji incident-light microscope at up to x400 magnification. Observations on maturity and character of the wood were recorded where visible. Identifications were made with reference to Schweingruber (1990), Hather (2000) and modern reference material. Classification and nomenclature follow Stace (1997). Identifications are provided to the highest taxonomic level possible according to the native British flora, i.e. where there is only a single native species, this is named, but where there are several native species, the genus or subfamily is given.

Results

The condition of the charcoal was relatively good, with large fragment sizes (>20 mm), albeit some infusion of sediment, which was notably heavier in the Middle Bronze Age samples. Occasional high levels of vitrification and frequent radial cracks were noted in the ditch samples, particularly in the *Prunus* from context 221 and the *Quercus* from context 527. Five taxa were positively identified (Table 10); *Quercus* sp. (oak), *Prunus spinosa* (blackthorn), Maloideae (hawthorn, apple, pear, service etc.), *Acer campestre* (field maple) and *Fraxinus excelsior* (ash). Although not every *Prunus* fragment was checked at high magnification, a representative sample was examined in longitudinal section which confirmed the wide, long rays characteristic of *P. spinosa* (blackthorn) and there was nothing to indicate the presence of a second species. Representative fragments of *Acer* also confirmed (on the basis of narrow rays) that the native *A. campestre* (field maple) was present.

Much of the charcoal (especially the *Prunus* and Maloideae) from the Bronze Age samples derived from small roundwood (radii of 6–12mm). These represented incomplete stems, occasionally with pith surviving and strong ring curvature, with rarely more than 5 years' growth visible. Several of the *Prunus* fragments in context 221 were evidently from the same branch, exhibiting the same ring patterns (9mm radius, 4 years, with pith). In contrast, some of the *Quercus* fragments exhibited tyloses, indicating heartwood, with little or no ring curvature and 10+ years' growth. Some of the *Acer* from the crop-dryer samples exhibited moderate ring curvature, but growth was relatively fast, with wide rings recorded. Insect tunnels (small and asymmetric) were observed in several samples; in fragments of *Prunus* from context 221, and in both *Acer* and Maloideae in context 151.

TABLE 10 – CHARCOAL RESULTS BY FRAGMENT COUNT

	Phase	Middle Bronze Age				Romano-British	
	Group	Curvilinear Ditch Group 668			Ditch Group 670	Crop-dryer Group 157	
	Feature number	218	349	426	471	147	
	Context number	221	527	428/429	475	151	151
	Sample number	24	230	160	117	21	23
Quercus sp.	oak	7 (h)	31 (h)	12 (hr)	4		
Prunus spinosa L.	blackthorn	38r	13r	29r	15r		
Maloideae	hawthorn group	1	1r	6r	26r	14 (r)	22 (r)
Acer campestre L.	field maple					27 (r)	13 (r)
Fraxinus excelsior L.	ash			1	4	8 (sr)	15 (sr)
Indeterminate		4	5	2 (r)	1	1	
Total		50	50	50	50	50	50

Key: h=heartwood; r=roundwood; s=sapwood; (brackets denote occasional rather than dominant feature)

Discussion

The charcoal from the Middle Bronze Age ditches is associated with rich assemblages of charred cereal remains and weed seeds, which indicate crop processing or cooking activities, typical of general domestic settlement waste (see Wyles, above). There is remarkable consistency in the general taxonomic composition of the charcoal samples, with the same three or four taxa replicated, albeit in differing quantities (Fig 12: compare oak and blackthorn in Section 1 and the northern terminal of 668, and hawthorn group in 670). The character of the wood was also similar, with roundwood of small diameter dominating the assemblages.

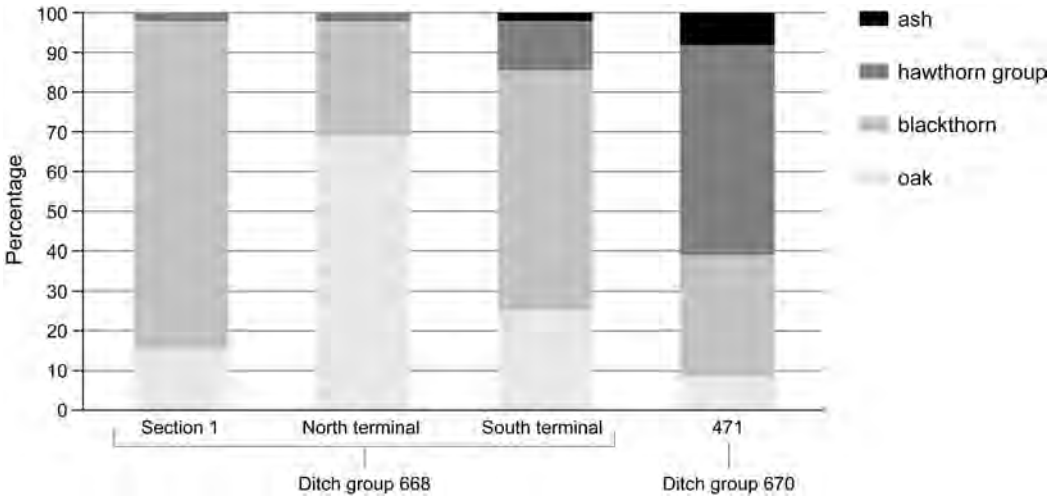

Fig. 12 Taxonomic composition of charcoal from Middle Bronze Age ditches (based upon fragment count; n=188)

Blackthorn and ash are light-demanding species and the use of these taxa, along with hawthorn type, indicates a relatively open environment from which the fuelwood would have been sourced; hedgerows or scrub, with some supplementary use of mature oak. The results are consistent with the types and character of fuelwood used for domestic purposes at similar sites, such as Brean Down (Gale 2000; Straker 1990).

The Romano-British crop-dryer samples presented an activity-specific context, where the charcoal derives from the burnt remains of firewood used to fuel the drying of crops. Field maple, ash and the hawthorn group trees all make good firewood. The character of the wood – with moderate or little ring curvature – suggests that larger branchwood or trunkwood was utilised. The presence of insect tunnels indicates that some time had elapsed between the felling and the charring of the wood (allowing the beetles to inhabit the dead wood). In this context, it is most likely that this occurred during deliberate seasoning of the firewood prior to use (rather than re-use of artefacts or structural timbers). Maple and ash are characteristic of calcareous soils and typically grow in mixed deciduous, relatively open, woodland. The taxa identified at Queen Camel are similar to those found in Romano-British settlement features at the nearby site of Shepton Mallet (Gale 2002).

Land and aquatic molluscs

by Sarah F Wyles

A single shell of the open country species *Vallonia* sp. was recovered from the six samples from Middle Bronze Age curvilinear ditch 668.

Shell numbers were good in four of the nine samples from late Romano-British boundary ditch 70. These were all from context 5. The predominant species within these assemblages were the open country species *Vallonia* spp., the intermediate species *Trochulus hispidus* and the shade-loving species *Carychium* sp., *Discus rotundatus* and *Aegopinella nitidula*. There were also smaller numbers of shells of *Acanthinula aculeata*, indicative of woodland environments, and *Aplexa* sp. and *Galba truncatula*, typical of areas of flooding and seasonal drying out.

The mollusc assemblages recorded from the lower fills of late Romano-British boundary ditch group 70 may be reflective of an open landscape with an area of long grassland subject to occasional flooding in the vicinity of the ditch and some woodland nearby, while those from the upper fills are more indicative of a well-established open landscape. The charred plant assemblage from the upper fill of this ditch, also show no evidence for the immediate presence or exploitation of wetter environments.

Sediments

by Nicki Mulhall

A monolith sample was taken from Section 1 in Middle Bronze Age curvilinear ditch 668. The monolith was cleaned prior to recording and standard descriptions used, (following Hodgson 1997) including Munsell colour, texture, structure and nature of boundaries.

The deposits showed a modern topsoil overlying a fairly thick layer of ditch fill interpreted as the result of side collapse due to natural processes. This overlay a silty clay layer with dark charcoal-rich bands, interpreted as dumping of charred material, rather than burning *in situ*. This dump layer lay above another layer of side collapse/washed in silty material which, in turn, overlay a further thin layer of silty clay with thin bands of charcoal.

The sequence observed in the monolith can best be summarised as natural processes alongside human activity and direct dumping of material, including charcoal, into the ditch. No stabilisation horizon or evidence for burning *in situ* was observed.

Radiocarbon dating

by Alistair J. Barclay and Sarah F. Wyles

Four radiocarbon dates were obtained on short-lived plant remains (charred) from the ^{14}CHRONO Centre, Queens University, Belfast (UBA-30456−59) (Table 11). They have been calculated using the calibration curve of Reimer *et al.* (2013) and the computer program OxCal (v4.2.3) (Bronk Ramsey and Lee 2013) and cited at 95% confidence and quoted in the form recommended by Mook (1986), with the end points rounded outwards to 10 years. The ranges in plain type in the radiocarbon tables have been calculated according to the maximum intercept method (Stuiver and Reimer 1986). All other ranges are derived from the probability method (Stuiver and Reimer 1993). A Bayesian approach has been adopted for the interpretation of the chronology (Bayliss *et al.* 2007). Although the simple calibrated dates are accurate estimates of the dates of the samples, it is the dates of the archaeological events, which are represented by those samples, which are of interest.

In the case of Queen Camel, it is the chronology of the enclosure ditch that is under consideration, not just the dates of individual samples. The OxCal programme provides the methodology to combine the dates to produce realistic estimates. Results derived from modelling parameters (eg, *Date* and *Span*) are rounded out to five years. Dates deriving from the model (*Posterior density estimates*) are quoted at 95% probability and are highlighted by italics.

Three samples (single charred cereal UBA-30457–9) were selected from the lower and upper fills to provide a more precise date for the construction and use of the ditched enclosure that contained sherds of Bronze Age Trevisker style pottery. A fourth date was obtained to directly date a charred grape pip (UBA-30456) and as expected this turned out to be intrusive (1520–1950 cal AD at 95% confidence) (Table 11).

Results

The three radiocarbon dates on cereal from the enclosure ditch are not statistically consistent and therefore derive from more than one phase of activity. These dates have been combined in a model that reflects their stratigraphic position within the ditch. As no sample was available from the ditch base the cutting and primary fill of the ditch has been estimated using the OxCal *Date* function. The model shown in Figure 13 has good overall agreement (Amodel 106) as do the individual samples. The construction and primary use of the enclosure appears to have happened towards the end of the Early Bronze Age and during the 16th or 15th century cal BC (modelled as *Date Dig ditch: 1580–1425 cal BC at 68% probability*). The ditch appears to have taken at least a generation and possibly much longer to infill (between 30 to 245 years to infill with a median value of 165 years: modelled as *Span ditch filling* Fig 14). These results also provide accurate date estimates for the use of Trevisker style pottery at this site during the 16th- and 15th-centuries BC.

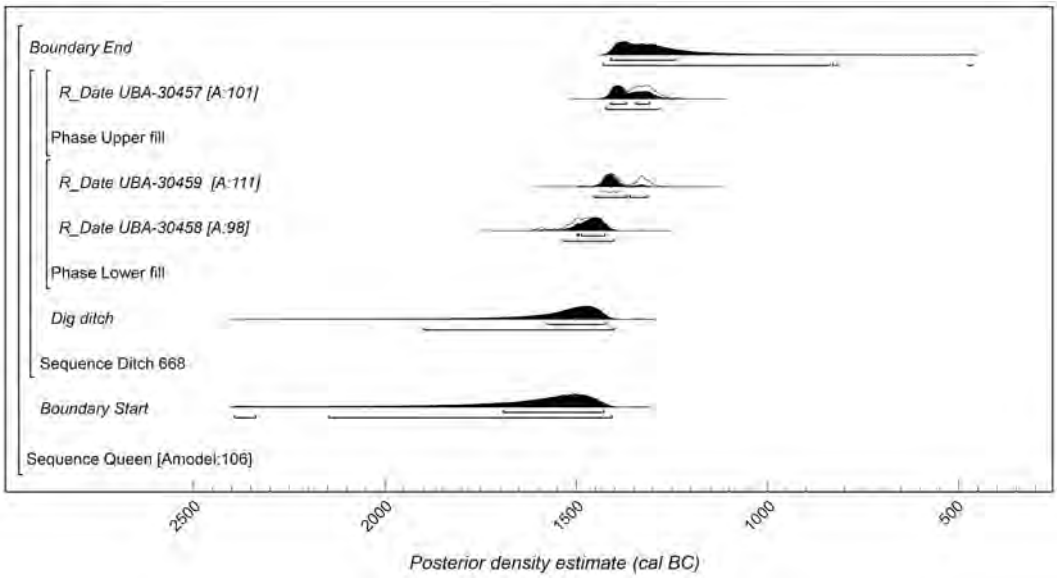

Fig. 13 Probability distributions for the radiocarbon dates from Queen Camel. Each distribution represents the relative probability that an event occurred at a particular time. For each of the dates two distributions have been plotted, one in outline, which is the result produced by the independent calibration of the radiocarbon measurement and a solid one which is based on the chronological information provided by the model. The large square brackets down the left-hand side of the diagram, along with the OxCal keywords, define the overall model exactly

TABLE 11 – RADIOCARBON DATES FOR DITCH 668 (CUTS 349 AND 426)

Lab ref.	Context	Material	Date BP	Calibrated at 95% confidence	Posterior density estimate 95% probability
UBA-30456	349, fill 350, sample <39>	Charred grape pip, *Vitis vinefera*	256±26	1520–1950 cal AD	–
UBA-30457	349, fill 353, sample <43>	Charred cereal, single hulled wheat grain	3084±29	1430–1260 cal BC	*1430–1280 cal BC*
UBA-30458	349, fill 482, sample <112>	Charred cereal, single barley grain	3214±36	1610–1410 cal BC	*1540–1400 cal BC*
UBA-30459	426, fill 429, sample <86>	Charred cereal, single hulled wheat grain	3119±30	1450–1290 cal BC	*1430–1280 cal BC*

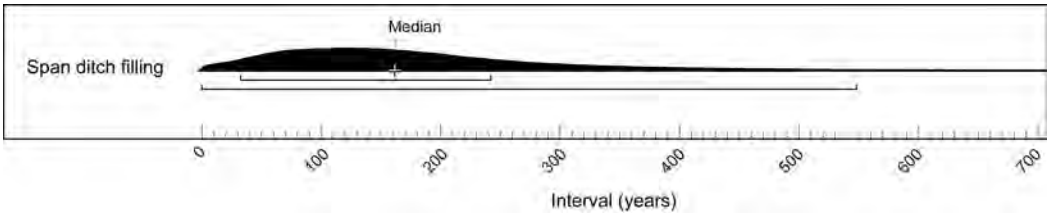

Fig. 14 Middle Bronze Age ditch 668 (modelled as Span Ditch Infilling), showing the likely duration in years that it was in use

DISCUSSION

The earliest evidence for activity on the site comprises a small assemblage of early prehistoric worked flints. Although these were all residual in later, Bronze Age features, the flint is in fairly fresh condition and suggests Mesolithic and Neolithic activity occurring in the vicinity. It has been noted that the site lies on a slight rise in a wide river valley and as such would have lain on the edge of seasonally-flooded wetlands during the Mesolithic period.

Middle Bronze Age

The Bronze Age ditches at Queen Camel are likely to form only a small part of an agricultural landscape that extended into the adjoining field to the east.

The date of the digging of curvilinear ditch 688 was in the 16th or 15th century BC, at the end of the Early Bronze Age, on the basis of three, modelled radiocarbon dates, with infilling taking place over somewhere between three decades and two and a half centuries. The ditch appears to have taken at least a generation and possibly much longer to infill (between 30 to 245 years to infill with a median value of 165 years. Although the exact purpose of this ditch remains enigmatic, it is broadly interpreted as part of an enclosure. This constitutes rare evidence for what appears to have been a Middle Bronze Age enclosed settlement in this area, particularly when considered alongside the finds material. However, too little of the Bronze Age site lay within the excavated area to be able to define the layout or pattern of activity more clearly.

Animal bone indicates that livestock farming was dominated by sheep and/or goat and cattle, which together account for 95% of the animal bone count. These appear to have been reared in close proximity to the site and brought there on the hoof, where they were slaughtered for local consumption.

Horse, red deer and dog make up most of the other animal bone.

Environmental evidence indicates barley, hulled wheat, emmer, spelt and oats were being processed, the spelt wheat in smaller quantities than the emmer. The presence of beans provides evidence of other crops, and possibly even hints at crop rotation. That cultivation was supplemented by foraging is indicated by relatively high quantities of hazelnut shell fragments in at least one feature, as well as sloe stone fragments.

The Middle Bronze Age pottery assemblage is of particular significance in terms of the production and distribution of a distinctive style of pottery. The Trevisker style pottery is of regional interest and contributes to our understanding of the occurrence of this style of pottery in the South-West. The fired clay objects provide evidence for textile manufacture, while the Bronze Age flint is indicative of local knapping and typical domestic usage. It seems probable that there is an extensive, if dispersed, Bronze Age settlement, or series of settlements, in the broad, flat valley in which the site is located. Whether these were occupied simultaneously or in succession is unknown. Bronze Age occupation has been noted between the site and South Cadbury hillfort which overlooks it and lies approximately 3.4km to the east, as well as on the hillfort itself (South Cadbury Environs Project). Recent excavations at Sutton Bridge, just over a kilometre to the east of the site have also revealed evidence of Middle Bronze Age occupation and agriculture (Wessex Archaeology 2015b). Slightly further afield, Middle Bronze Age field systems have been identified at Woolston Manor Farm, North Cadbury, 9km to the north-east (Tabor 2008). Fairly extensive settlement and agricultural activity dating to the Middle Bronze Age has also been noted at Lyde Road, Yeovil, 95km to the south. (Wessex Archaeology 2015a). With future work, there is considerable potential to build a better understanding of the nature, layout and chronology of the Queen Camel settlement and its place within the wider landscape.

Romano-British

The main period of Romano-British activity was in the later 2nd, 3rd and 4th centuries AD, and there is no evidence for any preceding Iron Age settlement. A corridor-type villa was built approximately 20m to the north of the site, and contained mosaics, a bath house and a hypocaust system (Graham 2009). It is clear from geophysics that the features recorded in the excavation formed part of the villa's immediately surrounding landscape. A probable trackway or droveway crossed the northern half of the site, with enclosure and field/drainage ditches laid out at right angles to it. The geophysical survey traced this track or drove way for 145m to the east of the site, and it is suggested that it also extends westwards into the unsurveyed area.

The excavation revealed other features undoubtedly associated with this villa. These included a well-preserved crop-drying oven and environmental remains from various features included barley, as well as spelt and emmer wheat, the latter in smaller quantities. Livestock consisted mainly of cattle, followed by sheep/goat and pig. Primary butchery seems to have taken place in the vicinity, with some evidence of horn having been removed. Many bones were also split lengthways in order to access the marrow, probably as a flavouring agent in stocks and stews.

Overall the excavation, in conjunction with previous geophysical results, has revealed part of a field system and ancillary structures which are associated with the villa to the north. It can be suggested that the villa itself stood within a complex of fields and courtyards to the north of a main east–west aligned trackway. To the south of this lay the fields and accompanying buildings necessary to service the villa itself; a crop-drying oven and light industrial activities, suggested by metal-working slag in ditch 390, provide evidence for the economy of the settlement.

The finds assemblage includes pottery of 1st- to 4th-century date, indicating some early Romano-British activity on the site, while the small number of coins are mostly from the 4th century.

The Roman finds are typical of those on other contemporary sites in the area such as Pylle Solar Farm (Newton, this vol). The pottery provides evidence for the trading links and ceramic influences operating in this area, although this is limited by the small size of the assemblage and its fragmented condition.

Iron slag recovered from several ditches hints at small-scale smithing activities, perhaps focused just to the east of the site, and corresponds with what is known from other villa estates. Quantities of the other material types are very limited but include a few pieces of glass and a shale spindle-whorl, as well as some building materials deriving from the villa.

Most of the stone recovered from ditch 70 was Lias limestone, the nearest source of which would

probably have been Sparkford Ridge, just over 1km to the north. A lesser quantity was of Hamstone, a local sandstone originating from Ham Hill, approximately 13.5km to the south-west. This stone is softer and therefore more easily worked than Lias, so it is possible that it was used for architectural elements such as window and door frames, with the Lias making up the main body of the villa buildings.

In chronological terms, it is apparent that at least the larger ditches were still partially open when the villa went out of use and was abandoned, as some of these contained moderately large quantities of building material. This must have derived from the villa itself or from associated ancillary buildings. However, it appears that some material was used to backfill one of the ditches, most likely to create a causeway, most likely while the villa was still in use.

The combination of geophysical and excavation evidence, along with the finds and environmental data, allow the villa to be seen in its broader setting, both in physical and economic terms. Within the wider Romano-British landscape, the site lies 7km to the east of the walled town of Ilchester (*Lindinis*) established in AD 55 as a military camp and subsequently growing to cover 32 acres. This part of the county was fairly heavily populated and also well-served by the road network. The Fosse Way lay 6km to the west of the site, linking Exeter (*Isca*) with Lincoln (*Lindum*). This road passed via Ilchester as well as Shepton Mallet, a linear settlement dating mainly to the 3th and 4th centuries located 30km to the north, before reaching the major Roman urban centre of Bath (*Aquae Sulis*), a further 30km to the north-east. A more minor Roman road, leading east from Ilchester towards Old Sarum (*Sorviodunum*) is thought to have passed along Sparkford Ridge, approximately 1km to the north.

Over 20 villas have been discovered in the surrounding area, mainly clustered around the Roman-British town of *Lindinis* (Croft, 2009). Opportunities for further work lie in examining the relationship between the villa at Queen Camel to these other villas, as well as to *Lindinis* itself. Although this was the only major Romano-British urban centre in this area, the scattered network of villas in this part of Somerset suggests a widespread distribution of settlements at this time, reflecting a concentration of Romano-British agricultural production. The slightly larger corridor villa at Lufton (Hayward 1972; Gerrard and Agate 2016 a and b), approximately 14km south-west, probably provides the closest parallel locally while recent excavations at Lyde Road in Yeovil provide more extensive evidence of Romano-British farming activities (Wessex Archaeology 2015a).

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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 TTNCM:27/2014.

Appendix 1: Middle Bronze Age Fabrics

C1: A soft, slightly soapy fabric containing a common amount (25%) of calcite with occasional limestone fragments, 0.25−5mm, angular, poorly sorted.

C2: A soft, slightly soapy fabric containing a common amount (25%) of degraded calcareous inclusions (unidentified), 0.1−1.5mm, sub-angular to angular, poorly sorted; rare (1%) iron oxides, 0.2−1mm, sub-rounded.

C3: A soft, silty fabric containing a moderate amount (15%) of voids, sub-rounded to rhomb-shaped, 0.1−0.75mm, possibly leached calcite.

C4: A soft, slightly soapy fabric containing abundant (40%) degraded calcareous inclusions, 0.1−1mm, sub-rounded to sub-angular; sparse (7%) quartz, <0.5mm, sub-rounded to sub-angular.

C5: A soft, slightly soapy fabric containing a very common amount (30%) calcite, 0.25−2.5mm, moderately sorted, angular.

C6: A soft, soapy fabric containing a sparse amount (7%) of calcite, ≤2mm, angular, poorly sorted; occasional limestone, ≤2mm, sub-rounded to sub-angular, poorly sorted, and rare (1%) iron oxides, 2mm, angular.

CG1: A soft, soapy fabric with greasy feel, containing common (20%) voids, presumably from calcareous inclusions, 0.25−1mm, sub-angular to angular; sparse (3%) argillaceous inclusions (?grog), 2.5mm, sub-rounded.

CG2: A soft, soapy fabric containing a moderate amount (15%) of grog (some of which appears to derive from a grog-tempered vessel), 0.5−2.5mm, sub-angular and moderate (10%) calcite, 0.5−1.25mm, angular.

CG3: A soft, soapy fabric containing a moderate amount (15%) of calcite, ≤3 mm, angular, with sparse (5%) grog, ≤2mm, sub-angular to angular, poorly sorted, in a silty fabric.

G1: A soft, soapy fabric containing a common amount (25%) of grog, 0.25−2.5mm, moderately sorted; rare (1%) iron oxides, 0.5mm, sub-angular. Elongate voids were also noted.

LG1: A soft, soapy fabric containing common (20%) limestone with occasional calcite, 0.2−3.5mm, poorly sorted, and moderate (10%) grog, <2mm, sub-angular to angular, poorly sorted. Thin-sectioning revealed that some of the grog fragments contained calcite, indicating they derived from a calcite-gritted vessel.

Q2: A soft, sandy fabric containing a moderate amount (15%) of quartz, fine to medium-grained, sub-angular to sub-rounded.

Q3: A soft, silty fabric containing a moderate amount (15%) of quartzite, 0.25−2mm, sub-angular to sub-rounded.

Q5: A soft, sandy fabric containing sparse quartz, 0.3mm, rounded, in a silty matrix with sparse calcaceous (limestone and shell) inclusions, up to 2.5mm, platy or rounded; rare iron oxides up to 0.5mm, rounded.

S99: Shell-tempered fabric, sherds too small or abraded to classify.

V1: A soft, soapy fabric containing a moderate amount (15%) of voids of indeterminate type.

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