

THE POTTERY AND FIRED CLAY OBJECTS FROM GOBLESTUBBS COPSE (Site Code: GCWB16)

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INTRODUCTION AND SUMMARY

This report encompasses pottery collected from fieldwork undertaken at Goblestubbs Copse in August 2016, and follows on from the pottery report from the previous excavation at Easter 2016 (Hayden 2016a). The aim of this report is to establish a likely chronological range and provenance for the recovered pottery, and to see whether this would add to an understanding of the supply and use of pottery at the site.

The excavation yielded 99 sherds of pottery (weighing 1395 grams) from six stratified and three unstratified contexts. Most of the pottery is dateable to the Late Iron Age-Roman transition period. There is however a comparatively small amount of pottery of Late Neolithic/Bronze Age and Iron Age dates. The overall impression is one of deposition of discarded pottery from the period *c.* AD 20-60 which straddles the AD 43 divide. This contrasts with the excavated pottery from the Goblestubbs Copse western enclosure which appears to represent a subsequent occupation phase in the vicinity dating from the mid-1st to mid-3rd centuries AD (Hayden 2013a; 2016b; McOmish and Hayden 2015). In addition this excavation unearthed two fired clay objects which are of note, and these are possibly related to pottery production somewhere in the vicinity of the site.

METHODOLOGY

All of the pottery was counted and weighed and then quantified by number and weight of sherds per fabric. Rims were measured using a rim chart to determine Estimated Vessel Equivalents (EVE's) and to ascertain vessel forms wherever this was achievable. The colour values of the fabrics have been described using *Munsell Soil Color Charts* (Munsell 2000). Sherds were examined using a hand lens at X20 magnification, whilst a pocket microscope (at X60 magnification incorporating a built-in artificial illumination source) was used to ascertain the size, form, frequency and nature

of inclusions and also to determine a fabric type-series. Codes were then assigned to each fabric and, where applicable, pre-existing fabric codes have also been cited which can be found in pottery reports on previous work on excavations in the area (Hayden 2013a; 2013b; 2016a; 2016b). In addition the colour hues of some of the fabrics have varied from previous excavations and, in consequence, the fabric descriptions of these fabrics have been updated accordingly.

THE FABRICS

1) Prehistoric Coarsewares

Fabric FT2: Prehistoric Flint-Tempered Coarseware 2

A handmade, fairly soft, rough fabric with an irregular fracture and rough feel, which varies in colour from brown (7.5YR 5/3) to yellowish red (5YR 4/6) throughout.

Inclusions consist of abundant, poorly-sorted, angular flint particles varying from 0.5-2.0mm in size, with sparse to rare, sub-angular ferrous and mica up to 0.02mm. Late Bronze Age or Early Iron Age in date.

Fabric FT3: Prehistoric Flint-Tempered Coarseware 3

A handmade, fairly hard, rough fabric with an irregular fracture and soapy feel, which is coloured either red (2.5YR 4/6) or brown (7.5YR 5/4) throughout. Inclusions consist of common, poorly-sorted, angular and sub-angular flint particles varying from 0.3-0.5mm in size, with sparse, sub-angular quartz and mica up to 0.02mm. Most likely to be of Middle-Late Iron Age in date.

Fabric MISC1: Prehistoric Sand and Flint-Free Coarseware

A handmade, fairly soft, rough fabric with a laminated fracture and rough feel, the outer surface of which is coloured strong brown (7.5YR 5/6) with a dark grey (5YR 4/1) inner surface and core. Inclusions consist of common, poorly-sorted, sub-angular and sub-rounded clay pellets varying from 0.3-1.5mm in size, with rare, sub-angular quartz, ferrous and mica particles up to 0.05mm. Late Neolithic (possibly 'Grooved Ware') or Early Bronze Age in date (Matt Pope *pers. comm.*).

Fabric SFT1: Prehistoric Sand and Flint-Tempered Coarseware 1

A handmade, fairly hard, rough fabric with an irregular fracture and rough feel, the surface of which is coloured reddish yellow (7.5YR 6/6) with a yellowish red (5YR 4/6) core. Inclusions consist of common, poorly-sorted, angular and sub-angular flint particles varying from 0.5-8.0mm in size, with sparse, sub-angular quartz of 0.3mm and mica up to 0.02mm. Late Iron Age in date, most likely dating to the 1st century BC.

Fabric SFT2: Prehistoric Sand and Flint-Tempered Coarseware 2

A handmade, fairly soft, rough fabric with a laminated fracture and rough feel, the outer surface of which is coloured brown (7.5YR 5/4) with a black (7.5YR 2.5/1) inner surface and core. Inclusions consist of very common, poorly-sorted, angular and sub-angular flint particles varying from 0.5-3.0mm in size, with sparse, sub-angular quartz of 0.3mm, and rare ferrous and mica particles up to 0.05mm. Late Bronze Age or Early Iron Age in date.

2) Late Iron Age to Early Roman-Period Coarsewares

Fabric ST3: Southern Atrebatian Overlap Sandy Coarseware 2

A handmade hard, rough fabric with an irregular fracture and rough feel except where there are areas of burnishing. The outer surface is coloured very dark grey (10YR 3/1) to dark greyish brown (10YR 4/2), with a greyish brown (10YR 5/2) to strong brown (7.5YR 4/2) inner surface, and a reddish brown (5YR 5/4) core. Other examples are coloured either dark grey (10YR 4/1) or grey (7.5YR 6/1) throughout. Inclusions consist of common, well-sorted, sub-angular quartz particles of 0.03-0.1mm in size, sparse, sub-angular cemented fine-grained sandstone of 0.05-0.2mm and mica of 0.02mm, and rare sub-angular ferrous of 0.2mm. The major period of production is from the early-1st century AD until c. AD 60 (Lyne 2005: 105).

Fabric ST4A: Arun Valley Handmade Reduced Coarseware

A handmade fairly hard, rough fabric with an irregular fracture and rough feel; although some examples appear to be handmade and subsequently wheel-finished. The surface colour varies greatly from black (10YR 2/1) to light brown (7.5YR 6/4), with a grey

(7.5YR 6/1) to reddish brown (5YR 5/4) core. Inclusions consist of abundant, well-sorted, sub-angular quartz particles between 0.3-1.0mm in size, common sub-rounded ferrous up to 0.5mm, and rare angular mica of 0.05-0.1mm.

Fabric ST4B: Arun Valley Handmade Oxidised Coarseware

A handmade moderately hard, rough fabric with an irregular fracture and rough feel, which appears to be an oxidised version of the above. The colour varies from red (2.5YR 5/6) to reddish yellow (5YR 6/6) throughout. Inclusions consist of common, well-sorted, sub-angular quartz particles between 0.3-1.0mm in size, sparse, sub-rounded ferrous up to 0.5mm, and rare angular mica of 0.05-0.1mm.

Fabric ST5A: Arun Valley Handmade Reduced Finer Coarseware

A handmade fairly hard, rough fabric with a smooth fracture and fairly feel, which is coloured grey (2.5Y 5/1) throughout. One example has an outer surface coloured reddish yellow (5YR 6/8) with a grey (2.5Y 6/1) inner surface and core. Inclusions consist of common, well-sorted, sub-angular quartz particles up to 0.5mm in size, and sparse sub-angular ferrous and mica of 0.02-0.05mm. This fabric appears to be a finer version of Fabric ST4A.

Fabric ST5B: Arun Valley Handmade Burnished Finer Coarseware

A handmade fairly hard, rough fabric with a smooth fracture and fairly smooth feel. The outer surface is coloured very dark grey (10YR 3/1), with a brown (7.5YR 5/4) inner surface and margins, and a grey (2.5Y 5/1) core, with one example coloured reddish yellow (7.5YR 6/6) throughout. Inclusions consist of common, well-sorted, sub-angular quartz particles up to 0.5mm in size, and sparse sub-angular ferrous and mica of 0.02-0.05mm.

Fabric SGT1: Arun Valley Sand and Grog-Tempered Coarseware

A handmade and subsequently wheel-finished, fairly hard, rough fabric with a laminated fracture and fairly smooth feel. The surface is coloured pale brown (10YR 6/3) with a light grey (10YR 7/1) core, with one example coloured very dark grey (10YR 3/1) on the

outer surface. Inclusions consist of common, well-sorted, sub-angular quartz particles of 0.05mm in size, sub-angular grog of 0.05-2.0mm and sparse sub-angular ferrous and mica up to 0.05mm.

3) Summary of the Pottery Fabrics

Although the pottery was counted and weighed, much of the material consists of small featureless bodysherds making identification and the quantification of a reasonable vessel population problematical. As can be seen purely from the fabrics the majority of this assemblage derives from the Late Iron Age-Roman transition period (Table 1). There is a small amount of Late Neolithic/Bronze Age and earlier Iron Age pottery, but these particular products have proved harder to provenance. All of the Late Iron Age-Roman transition period coarsewares would appear to be locally-made within, or close to, the Arun Valley area (Table 2).

Table 1. General summary of the pottery found at Goblestubbs Copse (GCWB16).

Period	Sherd Count	% Qty	Weight (grams)	% Wgt
Late Neolithic-Early Bronze Age	2	2.02	17	1.22
Late Bronze Age-Iron Age	6	6.06	60	4.30
Late Iron Age-Roman Transition	91	91.92	1318	94.48
TOTAL	99		1395	

Table 2. Breakdown of the pottery fabrics found at Goblestubbs Copse (GCWB16).

Fabric Group	Sherd Count	% Qty	Weight (grams)	% Wgt
FT2 - Prehistoric Flint-Tempered Coarseware 2	1	1.01	12	0.86
FT3 - Prehistoric Flint-Tempered Coarseware 3	2	2.02	4	0.29
MISC1 - Prehistoric Sand and Flint-Free Coarseware	2	2.02	17	1.22
SFT1 - Prehistoric Sand and Flint-Tempered Coarseware 1	2	2.02	27	1.94
SFT2 - Prehistoric Sand and Flint-Tempered Coarseware 2	1	1.01	17	1.22
ST3 - Southern Atrebatian Overlap Sandy Coarseware 2	57	57.58	1189	85.23
ST4A - Arun Valley Handmade Reduced Coarseware	24	24.24	101	7.24
ST4B - Arun Valley Handmade Oxidised Coarseware	6	6.06	9	0.64
ST5A - Arun Valley Handmade Reduced Finer Coarseware	1	1.01	1	0.07
ST5B - Arun Valley Handmade Burnished Finer Coarseware	2	2.02	3	0.21
SGT1 - Arun Valley Sand and Grog-Tempered Coarseware	1	1.01	15	1.08
TOTAL	99		1395	

Two new fabrics (Fabrics MISC1 and SFT2) were recognised which were not found during previous excavations at the site (a more detailed account of the fabrics found in each context is given as an appendix to this report). Significantly a close inspection of the fabrics reveal most of them to be in the main precursors to the more mass-produced and widely-distributed products produced in the Arun Valley. Roman-period production sites are known from the Wiggonholt (Evans 1974), Hardham (Winbolt 1927) and Littlehampton/Rustington areas (Lovell 2002). However, the pottery found here would pre-date products found at the aforementioned sites. Furthermore, as was the case with the 2006-2007 material from the eastern enclosure, the pottery is clearly handmade, even if some examples are subsequently finished using a wheel or turntable (Hayden 2013b). This handmade to wheel-finished transition has traditionally been believed to have started soon after AD 43, but this has recently been reassessed and may have taken until *c.* AD 70 to mature into fully wheel-thrown production (Hayden 2011). The assemblage is thus a significant indicator of the nature of localised production immediately before technological changes brought about by the Roman Conquest.

THE FORMS

Some of the rim sherds from this assemblage could be broadly classified by using a known type-series. Due to the lifespan of the site, it was felt that a published excavation type-series from a site in the local area with a similar chronological time frame would make more sense when assessing the pottery. To this end the type-series from Fishbourne (Cunliffe 1971) was used (Table 3). However the pottery forms from this site appear to be precursors to the wheel-thrown forms found in pre-AD 75 levels at Fishbourne. There were also two rim forms similar to examples found in 2006-2007.

Table 3. The indigenous coarseware rim forms found at Goblestubbs Copse (GCWB16).

Fabric	Rim Dia	EVE	Date	Closest Published Form
SFT1	12cm	0.03	c.100-0BC	Jar - McOmish & Hayden 2015: Fig. 23.1
ST3	10cm	0.08	c.AD20-60	Lid - Fishbourne 195.2 Prototype
ST3	10cm	0.03	c.AD20-60	Jar - Fishbourne 161.2 Prototype
ST3	10cm	0.73	c.AD20-60	Jar - Fishbourne 161.4 Prototype
ST4A	10cm	0.12	c.AD20-60	Lid - Fishbourne 187 Prototype
SGT1	10cm	0.04	c.AD20-60	Platter (Cam 1 copy) - McOmish & Hayden 2015: Fig. 23.3

Of these two rim forms, the Late Iron Age jar (in Fabric SFT1) shares similarities with the example found in 2006-2007, but does not come from the same vessel. The platter is the same profile, but this particular example is in a different fabric (Fabric SGT1) to the form found previously. Indeed contemporary pottery made using a sand and grog temper matrix is more often found on sites many miles to the east (McOmish and Hayden 2015: 19). These platters copy the shape of contemporary imported types, and give an indication of people being influenced by new ideas and possibly reflecting changes in dietary habits. Certainly the lack of wall height on platter forms indicates a shift towards consuming foodstuffs with a dryer consistency.

THE FIRED CLAY OBJECTS

Two fired clay objects were found in the lower levels of Trench 2 (Context 2014). The clay matrix indicates these were made locally, but the lack of hardness and form suggests they are not ceramic building material. They are roughly rectangular in shape and formed by hand, purely by squashing the clay together (Figure 1).



Figure 1. Possible clamp testers found in Trench 2 (Photograph: © Worthing Archaeological Society).

The most likely explanation for these is they are bonfire/clamp testers used in the production of pottery. They are placed at the edge of a firing, and when these change to an oxidised colour, it provides an indicator of when the firing has reached the desired temperature to let oxygen into the firing. This enables the pottery to be produced in an oxidised, rather than reduced colour. It has been argued elsewhere that the beach pebble found on site in 2006-2007 may have been a burnishing tool, and that some of the smaller clay-lined pits recorded in the Rewell Wood area in the early 20th century, may have been clay levigation tanks (Hayden 2013b: 24). Bonfire/clamp firings would leave little or no evidence in the archaeological record, but taking all the above into account it provides growing circumstantial evidence for pottery production in the vicinity of the site.

DISCUSSION OF THE POTTERY AND ITS REGIONAL SIGNIFICANCE

This pottery assemblage would appear to represent an earlier period of occupation than the adjacent western enclosure (McOmish and Hayden 2015), where the pottery bears typical characteristics seen in assemblages that date from the mid-1st to mid-3rd centuries AD in the Chichester area (Hayden 2016b). The locally-produced Arun Valley forms appear to be prototypes to forms noted in Period 1 levels at Fishbourne prior to the construction of the main palatial complex *c.* AD 75-80 (Cunliffe 1971). They are predominately handmade and finished using a slow wheel or turntable, and are an early attempt at producing profiles which later appear in fully wheel-thrown Arun Valley wares (McOmish and Hayden 2015). As such, they display similarities to what pottery survives from the nearby Shepherds Garden site in the Arundel area, which overlaps the AD 43 divide (see Frazer Hearne 1936: 229 and fig. 5, nos. 2 and 10). The earlier prehistoric pottery indicates activity on site, but what this represented is a little harder to define. The 1st century BC pottery found in Trench 2 was re-deposited in the upper levels, suggesting when the enclosure ditch was cut, the act of cutting disturbed a 1st century BC feature.

Of the 99 pottery sherds recovered, 49 would appear to have originated from a single vessel. The profile of the vessel, with an outcurved slightly beaded rim and short neck, would indicate a precursor to the Fishbourne type 161 (see Cunliffe 1971: 212 and fig. 101, no. 161.4). This jar form fits a date of *c.* AD 50-70, but given that pottery in levels above and below date to *c.* AD 20-60, it is likely the jar can be postulated as dating

to *c.* AD 50-60. The vessel is clearly handmade, but finished using a slow wheel or turntable, after which knife marks in a diagonal dashed pattern were applied to the outer surface (Figure 2). On one side this decoration has been subsequently scratched out, possibly indicating the vessel was ‘killed’ that is to say at the end of its life (Figure 3). The spread pattern of sherds within the enclosure ditch would indicate the pot was deliberately smashed after it was deposited in the ditch. Given the presence of pottery dating to *c.* AD 20-60 in the ditch fill, it is likely this enclosure ditch was backfilled at some point during the early 3rd quarter of the 1st century AD. This date is contemporary with the pottery recovered from the backfill of the ditches on three arms of the northern enclosure element (McOmish and Hayden 2015: 21; Hayden 2016a: 3-4).



Figure 2. Close up of the knife cut diagonal pattern decoration on a jar from Trench 2 (Photograph: © Author).



Figure 3. Part of a jar found in Trench 2 with faint scratch marks (Photograph: © Author).

In summary the pottery from the Goblestubbs Copse eastern enclosure illustrates certain characteristics not seen in many local assemblages dating to the 1st century AD. Although the traits would suggest people are beginning to adopt new ideas and possibly reflecting changes in diet and eating habits, whether one can correctly equate ‘Roman’ pottery forms to ‘Roman’ dietary behaviour has recently been challenged (Hayden 2011). This assemblage is regionally important in terms of the Late Iron Age-Roman transition, especially when viewed in comparison with the western enclosure. Clearly the mainly wheel-thrown pottery on the western enclosure is absent here, where the pottery is handmade and wheel-finished, whereas, with the exception of one vessel, the specific characteristics seen in the pottery at the eastern enclosure does not appear at the western site (Hayden 2016b: 5). The pattern at the eastern enclosure indicates a shift towards external influences, and demonstrates a blending of the adoption of new forms and technologies, whilst also retaining certain traits seen in indigenous traditions.

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Appendix - GCWB16 Pottery Assemblage By Context

Trench 2

Context 2001

SF no.	Qty	Wgt (gms)	Fabric	Form/Notes
2201	1	26	SFT1	Different pot, but similar to McOmish & Hayden 2015: Fig. 23.1
TOTAL	1	26		

Context 2007

SF no.	Qty	Wgt (gms)	Fabric	Form/Notes
2101	1	2	ST4A	
2102	1	2	ST4A	
2105	1	3	ST4A	
2107	1	2	ST4B	
2108	1	2	ST5B	
2109	1	2	ST4A	
2110	1	4	ST4A	
TOTAL	7	17		

Context 2010

SF no.	Qty	Wgt (gms)	Fabric	Form/Notes
2111	1	4	ST4B	
2112	1	2	ST4A	
2113	1	1	ST5B	
2120	1	3	ST4A	
2121	1	1	SFT1	Residual
TOTAL	5	11		

Context 2012

SF no.	Qty	Wgt (gms)	Fabric	Form/Notes
2114	1	8	ST4A	
2115	1	25	ST3	Fishbourne 195.2 prototype
2117	1	12	FT2	Residual
2118	1	4	ST3	Part of one pot
2147	1	15	SGT1	Form as McOmish & Hayden 2015: Fig. 23.3, but a different fabric
TOTAL	5	64		

Context 2013

SF no.	Qty	Wgt (gms)	Fabric	Form/Notes
2122	1	4	ST3	Part of one pot
2123	17	523	ST3	Fishbourne 161.4 prototype (part of one pot)
2124	2	274	ST3	Fishbourne 161.4 prototype (part of one pot)
2125	5	56	ST3	Part of one pot
2126	1	3	ST3	Part of one pot
2127	1	3	ST3	Part of one pot
2128	1	6	ST3	Part of one pot
2129	1	23	ST3	Part of one pot
2130	4	32	ST3	Part of one pot
2131	1	2	ST3	Part of one pot
2132	2	4	ST3	Part of one pot
2133	1	16	ST3	Part of one pot
2134	2	4	FT3	Conjoining residual sherds
2135	5	9	ST3	From same vessel
2136	2	8	ST3	Part of one pot
2137	2	44	ST4A	Fishbourne 187 prototype (conjoining sherds)
2138	4	26	ST3	Part of one pot
2139	1	4	ST3	Part of one pot

2140	4	102	ST3	Part of one pot
2141	1	7	ST3	Fishbourne 161.2 prototype
2142	1	2	ST4A	
2241	4	3	ST4B	
TOTAL	63	1155		

Context 2014

SF no.	Qty	Wgt (gms)	Fabric	Form/Notes
2144	8	15	ST4A	From same vessel
2146	1	58	ST3	Bowl or jar base
2148	1	2	ST4A	
TOTAL	10	75		

Trench 2 Unstratified

SF no.	Qty	Wgt (gms)	Fabric	Form/Notes
2219	1	1	ST4A	
TOTAL	1	1		

Trench 9

Context 902

SF no.	Qty	Wgt (gms)	Fabric	Form/Notes
9101	1	1	ST4A	
9102	1	17	SFT2	
9103	1	15	MISC1	
9104	1	6	ST4A	
9105	1	1	ST5A	
9216	1	2	MISC1	
TOTAL	6	42		

Trench 9 Unstratified

SF no.	Qty	Wgt (gms)	Fabric	Form/Notes
9217	1	4	ST4A	
TOTAL	1	4		