EVIDENCE FOR 17TH-CENTURY POTTERY PRODUCTION AT WRANGWAY, SOMERSET

TERRY PEARSON WITH DAVID DAWSON AND MICHAEL PONSFORD AND MINERALOGICAL REPORT BY JENS ANDERSON, DAVID DAWSON AND GAVYN ROLLINSON

SUMMARY

During a watching brief conducted by local volunteers when the M5 motorway was being constructed, scatters of wasted post-medieval pottery were recorded near the hamlet of Wrangway, Wellington Without, Somerset. A salvage excavation recorded an agricultural building with a drain and several shallow pits containing pottery waste. Three sections were later drawn. Subsequent study of the pottery showed that the majority was from only a few kiln firings sometime in the 17th century (accession number TTNCM: 91/1995). A quantitative analysis showed the range of vessels present while mineralogical studies in 2014 using QEMSCAN indicate that the clays used have a composition distinctive to west Somerset. A kiln has yet to be found.

THE SITE

Introduction

This paper is based on a manuscript authored by Terry Pearson, prepared for publication in 1976 and deposited with the archives of the M5 Research Committee (now in the care of the Somerset Heritage Centre, Taunton). It has been edited and amended in the light both of knowledge and understanding of ceramics of the period as at February 2015 by David Dawson and Michael Ponsford and of their interpretation of what has survived of the excavation archive in the museum collections at the Somerset Heritage Centre. Given the amount of attention currently being paid to red earthenwares from the south-west it is appropriate to publish this material although so long after the event. Unfortunately the editors have been unable to contact Terry Pearson but trust he would approve of his work albeit in amended form finally appearing in print.

The site was discovered in 1973 near the hamlet of Wrangway during fieldwork organised by the M5 Research Committee in advance of the construction of the M5 motorway through Somerset and examined by kind permission of the contractors, Messrs. Fitzgerald. It was recorded as M5 sites 88, 89 and 92 where finds of waste pottery were found over a wide area in the parish of Wellington Without at NGR ST 12 18 (Somerset HER 43743, 43734 and 43739; Dawson *et al* 2003, 49). The site of the excavation was located on the then west side of the Culm Davy to Wellington road (NGR ST12301822), some 100m north of the shrunken settlement of Wrangway (Somerset HER 28568; Fig. 1).

The excavation site was initially discovered and excavated by the late Howard Davies. Later excavation across the marl pit was carried out by the late Marion Newsom and Colin Clements. The records were subsequently handed over to the Committee for Rescue Archaeology in Avon, Gloucestershire and Somerset for whom Terry Pearson produced this report. At the time of writing no drawn records of the excavation have come to light in the archive.

The excavation

The following description has been edited down from the original typescript to the minimum required to illustrate the pottery study, which is regarded as the most important element of this report. It was prepared by Howard Davies and edited by Terry Pearson.

Between the site and a small stream 60m to the south was a large marl pit on a slightly elevated platform. The pit appeared to date from the 17th century or earlier as the later drain, feature F2, respects its position. It was not archaeologically excavated and was partly infilled by the contractors. The later excavation for the foundation of the bridge

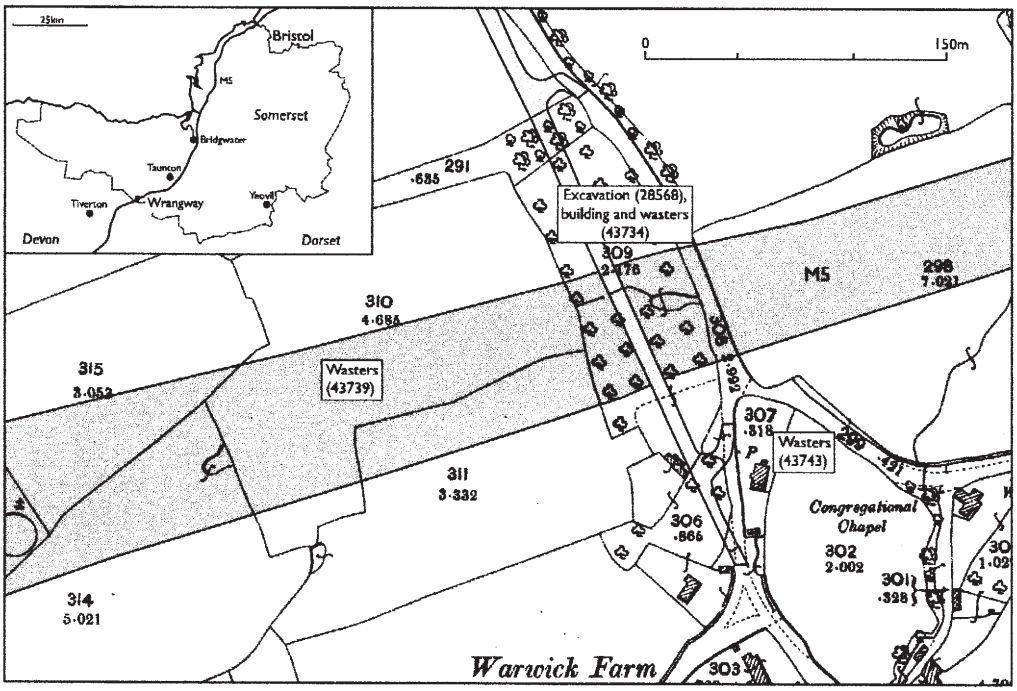

Fig. 1 Location of the excavation and other finds of pottery waste at Wrangway with their Somerset HER reference numbers. The line of the M5 and other new roads is shown in grey over a background reproduced from the 1904 1:2500 Ordnance Survey map

abutment probably cut part of it. The geology is Mercia Mudstone.

A three-day excavation revealed a rectangular masonry structure (F4) 11.5m long and 5m wide with a single wall footing 500mm wide and 120mm high on the eastern side constructed of chert lumps puddled in Mercia Mudstone. A single posthole (F8) 140mm in diameter and 350mm deep was found in a hollow in the floor. The floor was made of small lumps of chert and gravel. Broken brick fragments covered the hollow and the whole structure was sealed by a deposit of brown clay. A sub-rectangular pit located 8m south of the building 2.5m long by 1.5m wide (F1) was filled with an 80% density of wasted pottery, tile and kiln furniture. F1 was cut on the south-east by a stone-lined drain (F2) constructed of chert blocks 380mm wide internally and some 390mm deep, without capstones. The drain's fill contained finds up to the late 18th century. It was excavated for 2.5m and traced for a further 5m in a north-westerly direction towards the south-west corner of building F4. To the north-east of drain F2 was an irregular zone of discoloured (probably burnt) marl (F5) extending about 10m^2 and only 80mm thick above two deposits of kiln wasted pottery in shallow pits [unnumbered but possibly F6 and F7] impressed into the natural Mercia Mudstone each about 1.5m long by 0.80mm wide and 100mm deep. North-east of the masonry structure a further sub-rectangular vertical-sided pit 2m long by 1m wide was partially excavated (F3). Its fill was chert lumps and a central block of yellow limestone puddled in a grey/brown clay matrix. At a later stage, the base of a post had rested on the yellow limestone block and on removal the hole had been backfilled with grey loam and levelled with brick rubble and a white mortar. It should be noted that descriptions of F6 and F7 were not included in the report. F7 was nevertheless regarded as significant in the pottery study below.

During the later motorway construction work, the excavation of the foundation pit for the northern bridge abutment adjacent to the site revealed three deep sections. These sections were recorded and the pottery recovered was listed according to the section (sections C1, C2 and C3). The contexts revealed may in part have been the result of infilling by the contractors before the site was identified.

The section C3 was the closest to the south side of the site and may be across part of the large marl pit. While the pottery recovered from these sections was all of Wrangway type (ie comparable to the wasted groups from F1 and F7) the composition of the groups was significantly different. The proportion of wasted sherds to soil was below 20% and the fired state of the sherds suggested that they are probably more representative of the intended finish of Wrangway ware.

Interpretation

The excavated features suggest that three basic phases of activity can be distinguished. As noted above, the later contexts in sections C1-3 may have been significantly disturbed by recent infilling.

Period 1: Medieval and 16th century

Five sherds of medieval pottery were found, three body sherds of a jug (C1), one rim sherd of coarse bowl and one base sherd of a jug (C2). These sherds were residual in their contexts and the lack of any scatter or other evidence of this period would suggest that they were probably dumped along with the waste pottery as hard-core. Three 16th-century sherds were also found, all from F3. They probably arrived in the same fashion as the medieval sherds, but could be related to the pre-*c* 1600 activity connected with the use of the marl pit. The context F3 was, however, well away from the pit.

Period 2: pre c 1600

The large pit constructed by extraction to the south of the site and its subsequent abandonment comprise this period. Activities related to the extraction of the marl probably accounted for the pit-like depressions on the north side (F1 and F7). The gradual infilling of the pit with stones and pottery waste probably began now and continued throughout period 3.

Period 3(i): c 1600-1650

Following the abandonment (or partial abandonment) of the pit, the platform area to the north was probably levelled. The depressions and pits, which were probably excavated for marl extraction, were infilled with wasted pottery from a local kiln. The use of wasters for infilling wet areas, gateways, farm entrances and trackways is well known to one of the authors at Donyatt. In localities where a kiln was functioning pottery waste would have provided an easily obtainable hard core for such purposes. That this group is indeed a dump and not necessarily related to the kiln is suggested by several factors:

A the nature of the group of pottery from F1 and F7 – although a wide range of forms were represented many consisted of only complete (restorable) vessels (eg the decorated jars/chamber pots).

B the homogeneous nature of the group, both from the state to which it had been fired and its contents in form and decoration, suggests that it probably represents only a very short phase of production.

C the pottery was confined to a fairly restricted area and did not form part of a general spread over the other areas of the field: set in a similar rural situation, in the Donyatt kiln sites waste pottery became trodden and broken down into small sherds and spread over a wide area around the kiln.

The absence of ash and kiln debris and furniture all reinforce this interpretation.

Period 3(ii): c 1650-1750

The building (F4) appeared from the excavation to have been constructed of one rough chert/part possibly cob wall. The pottery scatters from the rough chert floor suggest a date range of the period 1600-1750 although the Wrangway-type pottery could be residual. The lack of any substantial amounts of domestic refuse would suggest that this structure was connected with agricultural use. The drain (F2) appears to be contemporary with the building, running from its south-west corner away to the south and later than the large pit (F1) as it respects its position turning towards the south-east. The drain apparently continued functioning until the late 18th century. The irregular area of apparently burnt clay was probably the result of a bonfire sited above it. The degree of burning was slight compared to material in a kiln structure.

Conclusion

The structure of the building (F4) with attendant drain (F2) suggests it was probably a small farm building or cattle shelter. The internal posthole (F3) adjacent to the wall was probably related to the internal furnishings of the building. The lack of domestic occupation rubbish lends further support to this hypothesis. The waste pottery group from features F1 and F7 form the single most important element of the excavation, while smaller subsidiary groups of wasted pottery were found in other contexts (Table 1).

TABLE 1 – SHERD QUANTITIES OF POTTERY TYPES FROM EXCAVATED CONTEXTS

contexts →	F1	F7	F2	F5	C1	C2	C3
pottery types ↓							
medieval	1				3	1	
'Wrangway ware'	7,030	220	38	29	57	141	344
Donyatt			13	4			
'Honiton ware'			6				
Hampshire/Dorset			3				
Staffordshire/Bristol				3			
Westerwald			6	1			

THE POTTERY

Somerset pottery studies

The major changes in understanding the ceramics of the period derive from two kinds of evidence: new evidence of pottery production from further fieldwork over the past thirty-five years and in 2012 a more refined fabric analysis and description using a new technique. At the time of the first draft, only the pottery waste from Nether Stowey and Donyatt sites 2, 7, 10 and 14 had been identified (Coleman-Smith and Pearson 1970; Coleman-Smith and Pearson 1988). Richard Coleman-Smith and Terry Pearson were in the midst of compiling the catalogue based on the Donyatt excavations and analysis of museum collections by which the distinctive 'Somerset style' of red earthenwares was defined by them and published in 1988. This research fed into the publication of similar wares from excavations in Taunton (Pearson 1984). Since then later pottery waste has been published from Bridgwater (Boore and Pearson 2010) and evidence has been found more contemporary with the Wrangway wares from Langford Budville and Crowcombe in the western end of the county, Wanstrow, Trudoxhill and Nunney in the eastern and a further two kilns found at site 13 at Donyatt (Coleman-Smith 2002). Further, taken together with finds from over the county boundary at Hole Common, Lyme Regis (Dorset; Draper 1982), and more recently Churchill's Farm, Hemyock (Devon) and scanty evidence from parish surveys of Chardstock (Devon) and Wambrook (Somerset), a belt of pottery-making centres surrounding the Blackdown Hills is beginning to emerge.

Secondly arising from the publication of the pottery from recent fieldwork at Taunton Castle, there has been the opportunity to analyse and compare samples of fabric from a number of production sites including Wrangway deploying a QEMSCAN, an automated scanning electron microscope that uses dispersive x-ray analysis to collect detailed spatially resolved mineralogical information (see Mineralogical Report below). This has resulted in a better understanding of the similarities and differences between these fabrics (Andersen *et al.* forthcoming). The sample from Wrangway is republished with this paper. As part of the Hemyock study, this work will be extended and correlated with the programme of ICP (inductively coupled plasma) analysis masterminded by John Allan and Michael Hughes (Allan 1999).

Introduction

The pottery recovered from this site was mainly of 17th- and 18th-century date with a small residual scatter of medieval and 16th-century sherds. The main bulk (99.48%) of total sherds of the pottery consisted of kiln waste from an early 17th-century kiln. They had been used as hard-core dumped in shallow depressions or pits. This group makes two important contributions to the study of post-medieval ceramics in south-west Somerset. First it identifies a range of products which echoes the forms and decorative techniques of other kilns in the area, and secondly the character of the group suggests that it displays the wares of only a short period of the overall life of the kiln.

The fill of a stone-lined drain (feature 2, period 2 (ii)) contained pottery, clay tobacco pipes and glass sack bottles which can be attributed to the late 18th century. The pottery consisted of local and non-local wares alongside a residual group of waste sherds. Perhaps the most important contribution of this material was the recognition by Terry Pearson of what he termed 'Honiton Ware'. Unfortunately the authors have not been able to identify the ware in the extant and probably incomplete archived collection and no such named ware has been found

elsewhere with which to make a comparison. It may have been related to the industry more recently found at Churchill's Farm, Hemyock, only four miles away but working a hundred years earlier. The pottery he identified as 'Honiton' ware was found alongside Donyatt, Hampshire/Dorset and Westerwald products.

The distribution of the sherd quantities of each pottery type from the excavated contexts is shown in table 1.

Method of Analysis

For the purpose of analysis the waste group was divided into three sub-groups:

Group A (contexts F1 and F7) was considered to be the most secure and contained 92.25% of the pottery from the site. This assemblage was rigorously sorted and all body sherds which could not be ascribed to a particular form were rejected. The remaining 2,825 sherds formed the basis of the quantative analysis.

Group B (contexts F2 and F3) and group C (contexts C1, C2 and C3) were of a slightly different composition and were retained whole for the analysis. The Wrangway ware in group B was residual from the disturbance of group A contexts.

About 20% of the pottery from group C was waste and apart from the medieval sherds can be attributed to the kiln. This material has been included in the analysis although it was not contemporary with group A and may reflect the products of a different phase in the life of the kiln.

The sherds were sorted into categories of pottery and form type before being counted. Form type notation and ordering is arbitrary and do not imply any chronological or typological relationships. This system is open-ended and will allow the insertion of further examples into the type series. This is particularly important because this group probably does not represent the complete range of forms or decorative techniques produced here. Examples selected for illustration do not reflect the complete range of variation within each form class but do include all the main types.

TABLE 2 – SHERD (s) AND WEIGTHT (w) PROPORTIONS FROM EXCAVATED CONTEXTS

context		F1		F2		F3		F4		F5		F7		C1		C2		C3		totals	
form typ	description	w	s	w	s	w	s	w	s	w	s	w	s	w	s	w	s	w	s	w	s
1	jugs		134	15g	1	30g	2	25g	1	200g	4	115g	12	225g	4	380g	12	1090g	25	8905g	195
2	cisterns	8830g	94							90g	1					180g	2	110g	9	9210g	106
3	large jars	20015g	174			350g	19	390g	15	300g			14	500g	5	1150g	11	200g	6	22905g	244
4	small jars	1865g	89			10g	3					525g	70	30g	1					2430g	163
5	decorated jars/	3585g	119			15g	4			15g	1	130g	7	30g	1					3775g	132
	chamber pots																				
6	bucket pots	30570g	527	600g	17					25g	1	580g	59	620g	6	1525g	39	1270g	66	35190g	715
7	pancheons	16895g	179	525g	9			195g	4	910g	23	640g	16	1760g	16	2360g	31	1440g	21	2472g	299
8	mugs	920g	36					35g	1	110g	3	185g	24	159g	10	150g	10	150g	18	1700g	93
9	cups	315g	10							385g	26	235g	24			100g	1	70g	1	1105g	62
10	porringers	60g	2					25g	1	50g	1					240g	5	10g	1	385g	10
11	pipkins	1635g	19									25g	1	240g	2	85g	1	70g	2	2055g	25
12	candlesticks	200g	7															50g	1	250g	8
13	chafing dishes	685g	16							305g	15	25g	5	600g	2	400g	1	400g	10	2445g	49
14	widerimmed	11835g	185			60g	1	10g	1	10g	1					110g	3	155g	4	12180g	195
	bowls/dishes																				
15	bowls	6540g	96			325g	14			100g	2	25g	1	405g	15	1115g	18	19990g	123	10500g	269
16	meat dishes/	8550g	44											580g	2			160g	2	9290g	48
	drip trays																				
17	lids	25g	1															10g	1	35g	2
18	large jars																	50g	1	50g	1
19	small pans/trays	20g	1																	20g	1
20	pottery irons	250g	1																	250g	1
21	cruets	185g	2													530g	1			715g	3
22	churns									675g	7									675g	7
23	pans													125g	2					125g	2
24	ridge tiles	8245g	57	825gg	7			50g	1			60g	1			125g	2	750g	32	10055g	100
25	kiln furniture	1110g	16	150g	3			135g	1									30g	3	1425g	23
26	kiln bricks & tiles	6320g	40	50g	1			140g	2		85			180g	1	590g	4	950g	18	8230g	66
	totals	134580g	1849	2165g	38	790g	43	1005g	27	3175g	85	2545g	234	5445g	67	9040g	141	8955g	344	168600g	2819

Quantitative analysis

The material was originally quantified by Terry Pearson to express the amount of pottery present on this site. It does not infer any emphasis in the output of particular forms nor is it necessarily complete in showing the range of forms produced. Three methods of quantitative analysis were attempted as described below:

i Minimum number of vessels. Vessel estimates by physical analysis or by proportional rim/base analysis could not be assessed due to the warped state of the sherds. This method was tried but discontinued.

ii Weight. The sherds within each form type and context were weighed but it was clear that this reflected a distinct bias toward the form of vessel. The average sherd weight for each form was calculated; the sample size taken was the largest within each form type. As expected this indicates that the heavier average sherd weights correspond to the larger and heavier forms.

iii Number of sherds. The sherds were counted within each context according to description (eg whether rim, body or base) and within each form (this is shown in the primary record). It was felt that this was the best expression of the quantity of forms in the assemblage.

Post-medieval pottery production

Fabric

Two main fabrics can be distinguished by eye, fabrics A and B, and samples of each were subject to petrological analysis. The basic clay for both appears to be the same, the main difference being in preparation and inclusion of grits. Both Mercia Mudstone and iron-rich alluvial clays are available in the area. The majority of the sherds examined were micaceous. Colour ranged from a dark blue-black to light orange-buff, reflecting variations in reducing and oxidising atmospheres during the firing process. It would appear as though the oxidised state was desired. The majority of the sherds were waste from firing and many were underfired. As such the state and condition of the sherds was not representative of the 'normal' products of the kiln.

Fabric A consisted of a fine sand-tempered clay with isolated rounded opaque quartzite and red iron ore grits. This fabric was predominant for all forms.

Fabric B was coarser than A with a variable density of grits including rounded quartzite (white, opaque, glassy grains) and red iron ore. This fabric was mainly used for brick and tile but also used in some of the larger vessels.

Techniques

The pottery was all wheel-thrown with characteristic marked rings internally and externally especially on the larger vessels. Internal throwing rings were up to an inch across. The pottery had been removed from the wheel-head with a wire or knife leaving parallel lines on the base. Many forms showed evidence of knife-trimming round the base. Glazes appeared to have been applied in liquid form although one sherd with under-fired glaze has clear brush marks.

Forms

The forms can be paralleled with examples from Donyatt and Nether Stowey. It was interesting that many of the form groups were represented by reconstructable vessels, particularly form types 2, 3, 5, 8, 9 and 12 while in other cases the groups were extremely fragmentary. Where form types are directly comparable with kiln sites of this region, this has been stated in the catalogue.

Decoration

One problem in the analysis of pottery from south-west Somerset is the degree of intermixing of decorative motifs and techniques on a wide range of forms. In order to avoid the publication of a continually expanding series of variations, it is suggested that charts of decorative forms and elements could facilitate efficient analysis and publication of future material. This could also lead eventually to a numerical key to the classification of form and design.

Glaze

Where the lead glaze was applied over the red earthenware body it is usually clear and took its brown colour with dark speckles from the fabric. Where it was reduction-fired, commonly for example with form type 9 (cups), the colour is olive green. Variations in firing caused mottling in brown and green. In the majority of slipped wares including those sgraffito-decorated the glaze was plain. There were only six examples where copper oxides had been sprinkled onto the glaze to produce green staining.

White slip
White slip was used as a base for sgraffito decoration as well as decoration in its own right, especially in types 10, 12, 14, 15 and 21.

Sgraffito decoration
This was confined to form types 1, 5, 13 and 14. A classification of designs was devised by Terry Pearson into A, B, C, D and E, and although details of this could not be found in the existing archive the patterns are described in the following catalogue. The main classes of decoration are common at Nether Stowey, particularly classes B and C (Coleman-Smith and Pearson 1970, 7). At Donyatt designs were very similar but tended to be more developed (Coleman-Smith and Pearson 1988, 174-217). It is possible that the finds from the Donyatt group could be slightly later than the waste from Wrangway.

The sgraffito decoration consisted of single-line incisions through the white slip to the red clay body and was in the majority of cases crudely executed. Designs on the interiors of wide-rimmed bowls/dishes (form type 11) do not appear to have been intended to represent any particular image, unlike for example the bird pattern that is used at Donyatt (Coleman-Smith and Pearson 1970, 1; Coleman-Smith and Pearson 1988, 197-198).

White trailed slip
Examples of form type 14 had rough white slip-trailed decoration and its consistently crude execution suggests that the technique was newly introduced. It has been suggested that this was caused by the inexpert use of a slip-trailer. Slip-trailing was probably introduced at Donyatt in the early 17th century and replaced the 16th-century technique of painting slip on with a brush.

Encrusted quartzite
White opaque rounded quartzite of the same type and size as used in fabric B had been applied as decoration onto the glaze of the cups of type form 9. The glaze on these vessels was reduced to olive green. Although the technique was used at Donyatt on jugs and cups at the same period, there this was accompanied by a rich brown/black lead glaze (Coleman-Smith and Pearson 1988, 162, 388).

Wiped slip
It was common to paint a band of white slip round the upper part of the body of more utilitarian vessels (types 2 and 6) and to wipe the band with the fingers whilst the vessel was turning on the wheel. This technique was commonly found at Donyatt (Coleman-Smith and Pearson 1988, 246-257).

Evidence of kiln structure and setting
There was a small amount of kiln furniture in the group and some sherds showed signs of being used as placers. Twenty-three sherds of what were then thought by Pearson to be saggars were found and sixty-seven of brick and kiln tile. From the scars on a number of vessels it was evident that the larger cylindrical forms (jars, jugs, bucket pots, etc) had been stacked upside down and that many of the wide-rimmed bowl or dish forms had been stacked on their sides. Further observations were made in 2014 on the incomplete evidence from the surviving assemblage. The kiln furniture is similar to that from Donyatt (Coleman-Smith and Pearson 1988, 327-336; Coleman-Smith 2002, 158-160). Sherds of tiles, both roof tiles, floor tiles and 'oven' tiles, have scars and blushes of vaporised glaze from being used as separators. The sherds of what were identified by Terry Pearson as being from saggars, specially made cylindrical vessels designed to protect small vulnerable pots during firing, could not be found in the existing archive with any certainty. There are two rim sherds both heavily reduced which are almost identical in size to cylindrical vessels recently found among kiln waste of a similar date examined by David Dawson and Oliver Kent from the site at the Exeter Inn, Barnstaple (Devon) and an earlier date at Churchill's Farm, Hemyock (Devon). However, no example of the piercings characteristic of these other vessels was found among the surviving sherds from Wrangway. Whatever the function of these vessels, at none of the three sites do the sherds show any sign of being used as saggars. Added to which they are simply too small to have functioned as such. A more extensive discussion of this type of vessel will be found in the report on the excavations at Hemyock (Dawson and Kent forthcoming). In publishing the excavations at Donyatt, Coleman-Smith and Pearson referred to very short cylindrical vessels as placers (Coleman-Smith and Pearson 1988, 333-334).

There is little evidence of the structure of the kiln itself. 'Oven' tiles similar to those found here were used as part of the coursed lining to the sub-structure at Donyatt 13. However the thicker tiles pierced from back to front and heavily encrusted with glaze and fragments of pottery could possibly have formed part of the floor of the ware chamber.

Characterisation, dating and conclusion

The similarities that exist between post-medieval red earthenwares of east Devon (Hemyock – in course of processing and publication), west Dorset (Lyme Regis (Draper 1982) and Holnest – unpublished) and west and south Somerset make ascription to any particular centre of production problematic. Similarities of form and decoration with wares made at Nether Stowey and Donyatt have been noted. Even the fabric A of Wrangway ware is similar to other fabrics of the west Somerset group of potteries that include Langford Budville, Crowcombe and Nether Stowey – so similar is their mineralogy as to be impossible to differentiate (see below). It is however different from the mineralogy of the wares from south Somerset such as those from Donyatt (Andersen *et al*. forthcoming).

There is no basis from Somerset for a precise chronology of red earthenware forms and decoration in all their sub-regional variations. Good securely-dated well-stratified sequences are rare from the county. Overall the impression of the assemblage is that it dates from the seventeenth century. As John Allan has commented, the production of quartz-encrusted cups provides the best indication of this date for the material from Wrangway, citing groups 61 and 63 from the Valiant Soldier, Exeter, of *c.*1620-50 based on dated clay tobacco-pipes (Allan 1984, 177, 179).

The evidence of pottery manufacture at Wrangway is an important component in a pattern of post-medieval potteries of the 16th to 18th century producing red earthenwares for domestic consumption. Mineralogically these wares belong to a west Somerset group of potteries that seem to be distributed from the flanks of the Blackdown Hills through the Vale of Taunton Deane to either side of the Quantock Hills. The nearby town of Wellington would seem to be an obvious market but, as no archaeological investigation has been carried out here, there is no direct evidence to support this assumption. Wares from this group have been identified from excavations in Taunton Castle (Webster forthcoming). Further West Somerset wares, so far unpublished except for Bristol, have been identified at excavations at George Street, Bridgwater, at Penhow Castle (Gwent) and at Narrow Quay, Bristol (Good 1987, 38). The forms made at Wrangway and decorative techniques employed, including sgraffito, belong to a much broader family of wares that are characteristic of Somerset.

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THE CATALOGUE OF ILLUSTRATED WASTE POTTERY

compiled by Terry Pearson and amended by David Dawson.

Fabric A was used except where stated.

Type 1. Jugs (Fig. 2, nos. 1, 2, 3, 4 and 6)

All the sherds of this form were small and show wide variations in style.

1) Rim sherd. Orange-buff to blue-grey fabric under green glaze (C3).
2) Body and handle sherd. Red-orange fabric under clear yellow glaze (F1).
3) Body and base sherds. Dull red-brown fabric with internal brown glaze. Traces of white slip design on external upper part of vessel (F1). Not illustrated.
4) Rim sherd with pulled spout. Red-brown to grey-black fabric with external yellow green glaze (F1).
6) A much larger example of this form. Red-orange fabric with internal brown glaze and external glaze runs (F1). Applied thumbed strip round shoulder; stub of a pulled handle.

Type 2. Cisterns (Fig. 2, no. 5)

Ninety-four sherds were recovered from context F1. Of these thirty-three fitted together to form about half of one vessel. The form is similar to examples from Donyatt (Coleman-Smith and Pearson 1988, 157).

5) Red-orange to grey-black fabric with white slip decoration under a patchy green-brown glaze (F1).

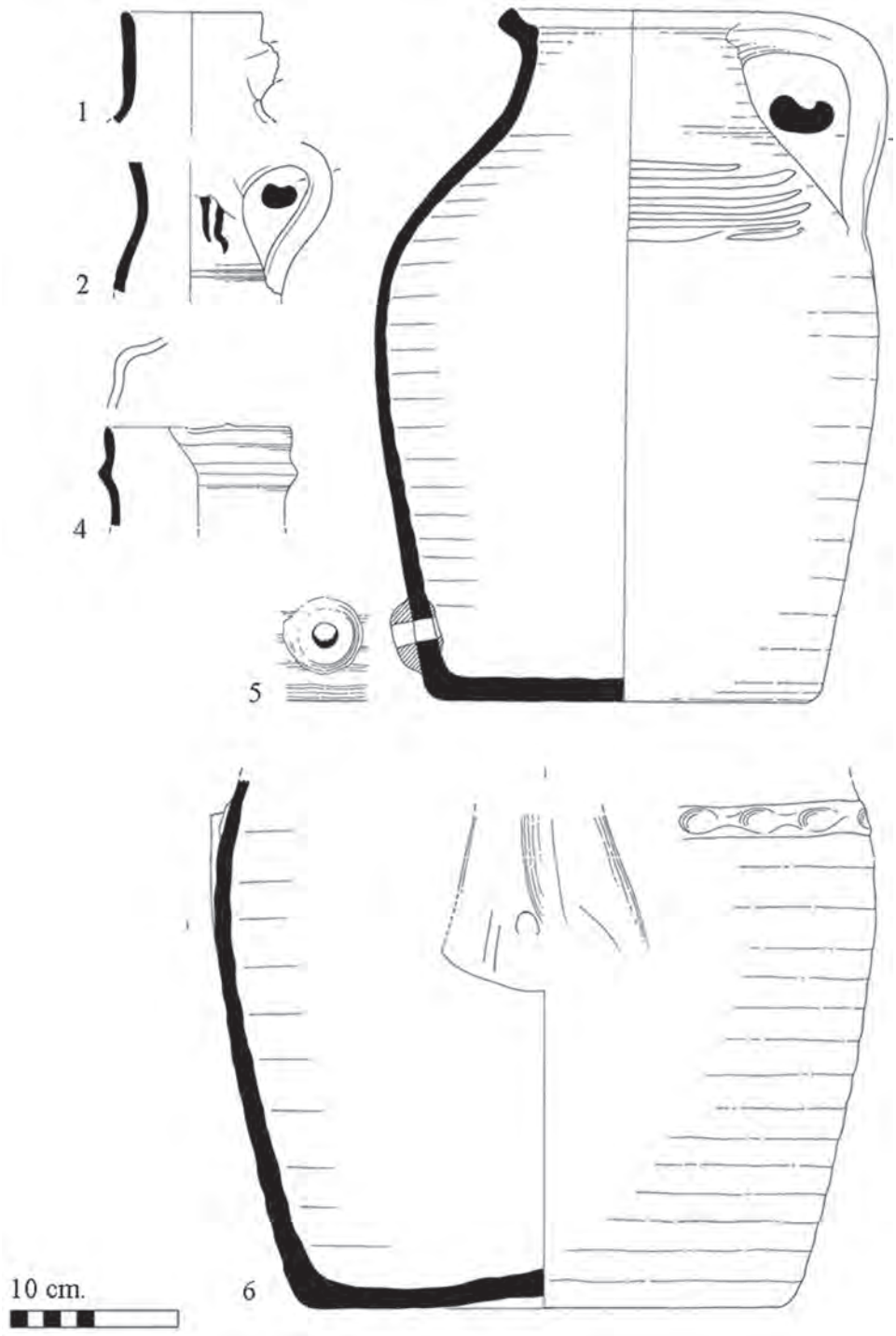


Fig. 2 The pottery: jugs (1, 2, 4 and 6) and cisterns (5)

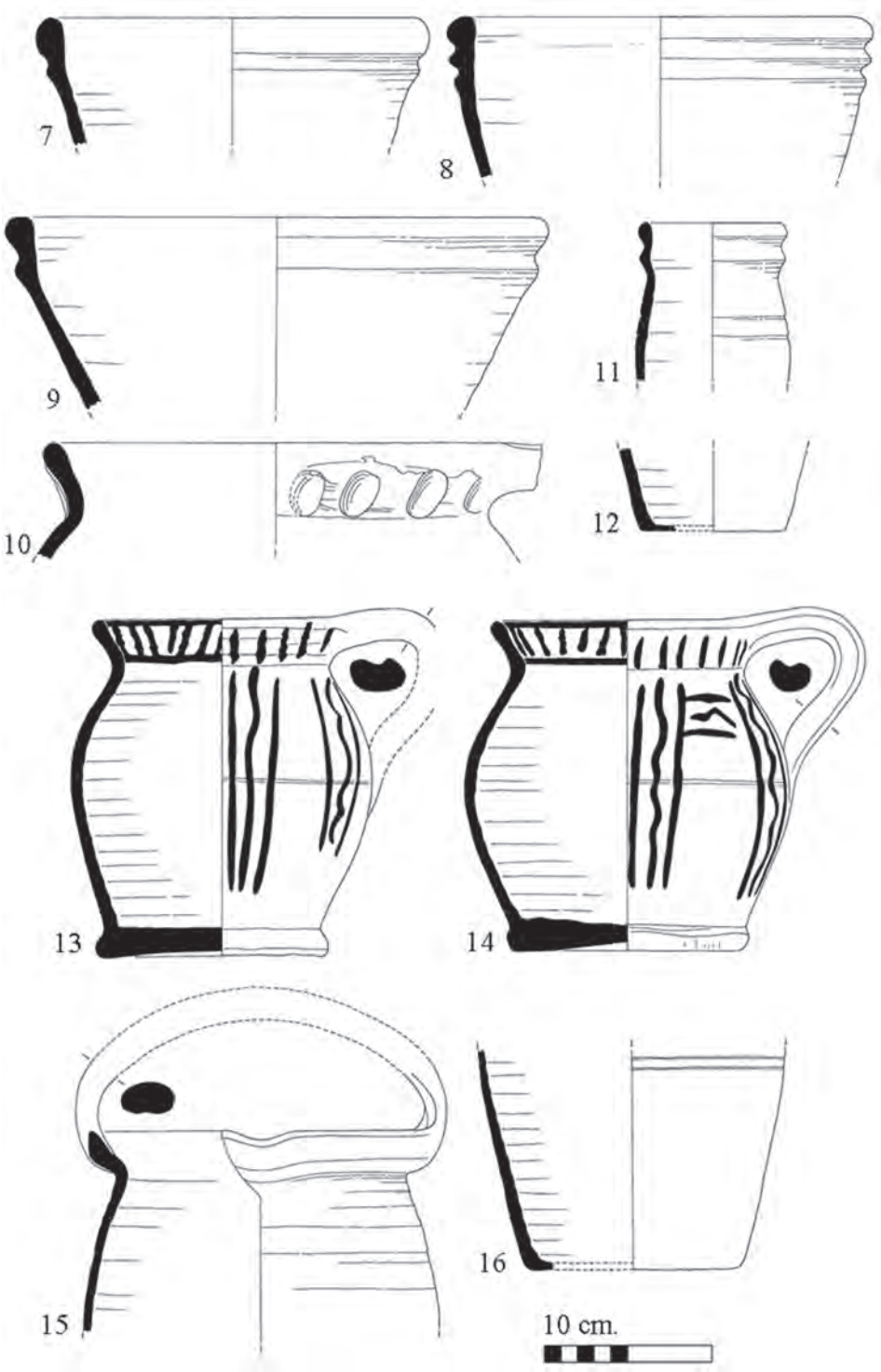


Fig. 3 The pottery: large jars (7, 8 and 9), small jars (11 and 12), decorated jars (13 and 14) and bucket pots (15 and 16)

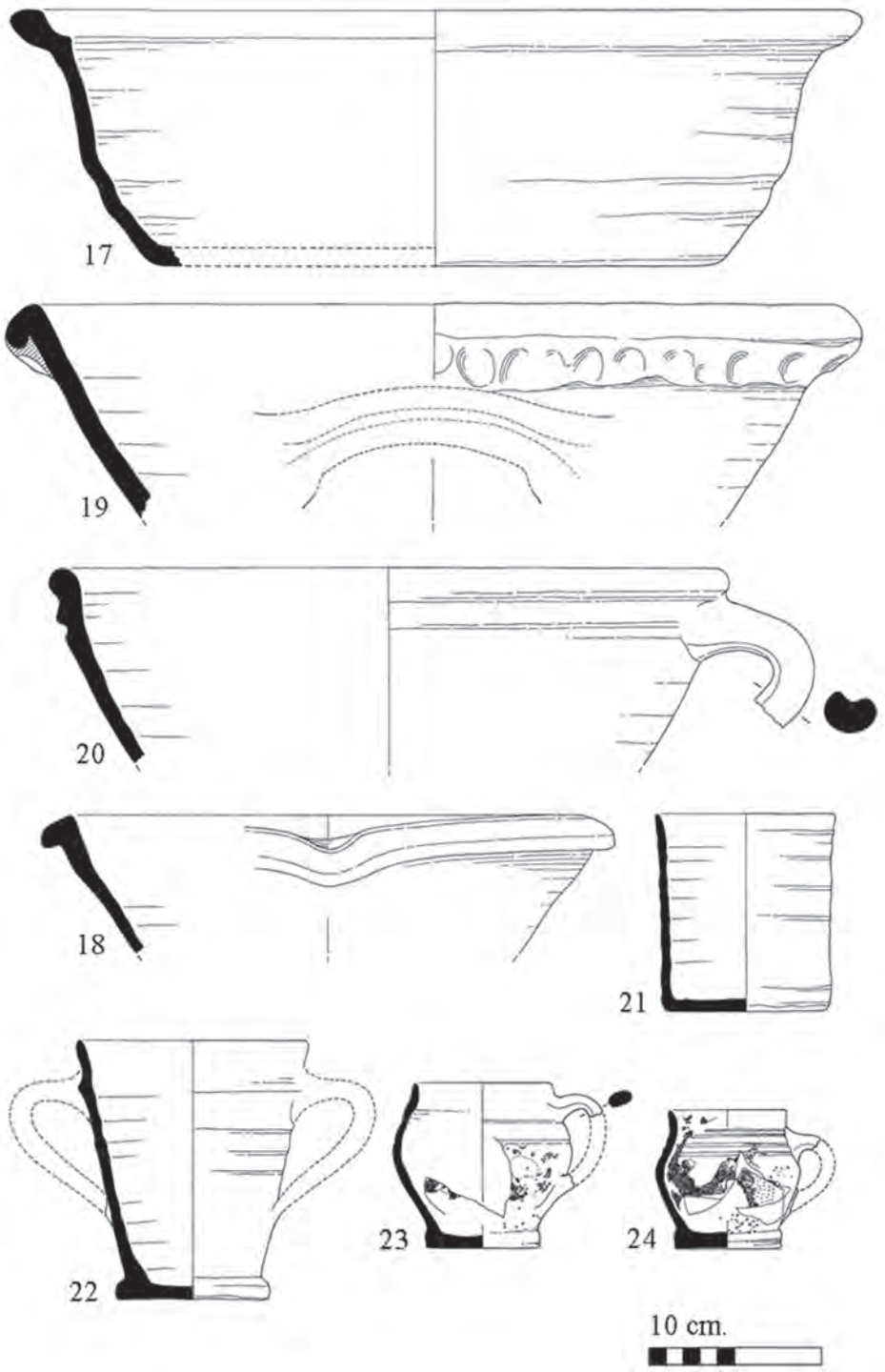


Fig. 4 The pottery: pancheons (17, 18, 19 and 20), mugs (21 and 22) and cups (23 and 24)

Type 3. Large jars (Fig. 3, nos. 7, 8, 9 and 10)
These forms are similar to those made at Donyatt (Coleman-Smith and Pearson 1988, 246).

7) Orange-buff fabric with internal yellow green glaze (F1).
8) Orange-buff fabric with internal yellow green glaze and external glaze runs (F1).
9) Red-orange fabric with internal brown glaze. Glaze scar on rim (F1).
10) Red-orange fabric with external purple bloom and internal patchy green glaze (F1). Applied thumbed reinforcing strip under the rim; stub of a pulled handle.

Type 4. Small jars (Fig. 3, nos. 11 and 12).
Small cylindrical vessels.

11) Red-brown to blue-grey fabric with internal brown-black glaze (F1).
12) Orange-buff to blue-grey fabric with internal green glaze (F1).

Type 5. Decorated jars (Fig. 3, nos. 13 and 14).
Handled jar forms with all-over white slip and external sgraffito decoration. Similar forms were made at Nether Stowey and Donyatt (Coleman-Smith and Pearson 1970, 6-8; Coleman-Smith and Pearson 1988, 246).

13) Orange-buff fabric with clear yellow glaze (F1). Decoration: vertical stripes, paired with a wavy line between on the outside, vertical lines round the inside and outside of the rim.
14) Orange-buff fabric with clear yellow glaze (F1). Decoration: similar to 13 with the addition of horizontal similar triplets of lines between the groups of verticals.

Type 6. Bucket pots (Fig. 3, nos. 15 and 16)
The Wrangway sherds all derive from one size of vessel. This form was the largest group represented in the waste deposit. Various sizes of this type of vessel were produced at Donyatt (Coleman-Smith and Pearson 1988, 225).

15) Red-brown to blue-grey fabric with internal brown to black glaze. External white wiped slip bands (F1).
16) Red-brown to blue-grey fabric with internal brown-black glaze (F1).

Type 7. Pancheons (Fig. 4, nos. 17, 18, 19 and 20).
Various forms of different sizes were represented. Similar vessels were made at Nether Stowey and Donyatt (Coleman-Smith and Pearson 1970, 6-8; Coleman-Smith and Pearson 1988, 231). Fabrics A and B.

17) Orange-buff fabric with internal brown-yellow glaze (C1).
18) Red-orange fabric with internal iron-flecked brown-yellow glaze (F1). Pulled spout.
19) Orange-buff to blue-grey fabric with external purple bloom and internal uneven green to orange glaze (C1). Applied thumbed reinforcing strip under the rim; horizontal handle.
20) Red-orange fabric with internal brown glaze (F1). Part of a pulled handle.

Type 8. Mugs (Fig. 4, nos. 21 and 22).

21) Orange-buff to brown fabric with an all-over iron-flecked brown glaze (F1).
22) Red-orange buff fabric with all-over iron-flecked brown glaze (F1). Two handles.

Type 9. Cups (figure 4, nos. 23 and 24).
The form is common in southern England. The Wrangway examples are encrusted with quartzite grains applied to the surface of the vessel in no discernible pattern. This form was produced at Donyatt and examples have been found in Taunton, Exeter and Bristol (Coleman-Smith and Pearson 1988. 388).

23) Red-orange fabric with all-over green glaze (F7). Single handle.
24) Red-orange fabric with all-over brown to green glaze (F5). Single handle.

Type 10. Porringers (Fig. 5, nos. 25 and 26).
Only ten sherds could be attributed to this type of vessel. These are directly comparable to examples from Nether Stowey and Donyatt (Coleman-Smith and Pearson 1970, 7; Coleman-Smith and Pearson 1988, 166).

25) Orange-buff fabric with internal white slip under yellow glaze (F1).
26) Orange-buff fabric with all-over white slip under a yellow glaze (C2).

Type 11. Pipkins (Fig. 5, nos. 27, 28 and 29).
Similar forms were produced at both Nether Stowey and Donyatt (Coleman-Smith and Pearson 1970, 7, figure 6.5; Coleman-Smith and Pearson 1988, 263-265). Neither 28 nor 29 showed signs of being waste.

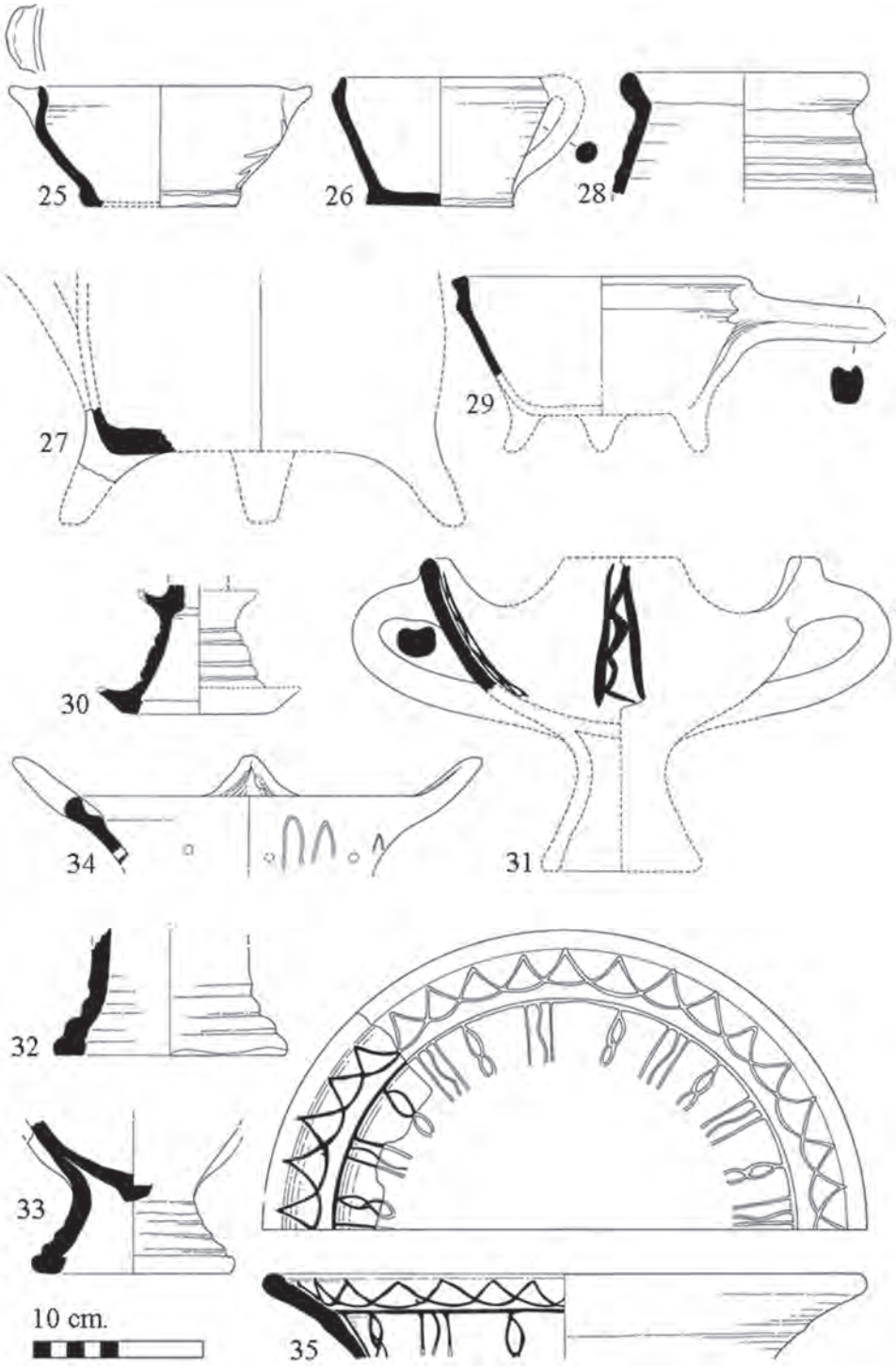


Fig. 5 The pottery: porringers (25 and 26), pipkins (27, 28 and 29), candlesticks (30), chafing dishes (31, 32, 33 and 34) and wide-rimmed bowls (35)

27) Foot on base sealing strap of handle against body. Grey-black fabric with internal black to green glaze (F1).
28) Buff to grey-blue fabric with internal yellow-green glaze (C1).
29) Orange-buff fabric with internal patchy green glaze (C3).

Type 12. Candlesticks (Fig. 5, no. 30).

30) Buff-orange fabric with brown glaze (F1).

Type 13. Chafing dishes (Fig. 5, nos. 31, 32, 33 and 34).
Two distinct forms of chafing dish are represented. Both were also made at Donyatt (Coleman-Smith and Pearson 1988, 217-223).

31) Orange-buff fabric with all-over white slip and internal sgraffito decoration under a clear yellow glaze (F1).
32) Orange-buff fabric with external brown glaze (F1).
33) Orange-buff fabric with internal white slip under a clear yellow glaze; external brown glaze patches (C1).
34) Orange-buff fabric with internal and external patchy white slip and internal yellow-green and external patchy yellow glaze (F1).

Type 14. Wide-rimmed bowls (Fig. 5, no. 35; Fig. 6, nos. 36, 37 and 38; Fig. 7, nos. 39, 40, 42, 43 and 44; Fig. 8, nos. 41, 45, 46, and 48; and Fig. 9, nos. 47, 49, 50 and 51).
These are comparable to examples from Donyatt and Nether Stowey (Coleman-Smith and Pearson 1970, 7, figure 6, nos. 4a, 4b, 4c; Coleman-Smith and Pearson 1988, 174-187). Further comparison can be made with examples from Taunton and Bristol (Pearson 1984, fiche II D6, nos. 911, 918 and 921; Barton 1964, 204, figure 68, nos. 46, 51, 52, 53, 54, 55, 56, 57 and 58). Numbers 36, 37, 38, 39, 40, 41, 42 and 51 all have internal white slip and sgraffito decoration. Numbers 43 and 44 have internal plain white slip and numbers 45, 46, 47, 48 and 49 have internal slip-trailed decoration. The form of number 51 is more of a bowl than a bowl/dish and is directly comparable to examples from Nether Stowey. As it was the only example of this sub-form from Wrangway it has been placed at the end of the list of this type.

35) Orange-buff fabric with internal yellow glaze. Sgraffito design B2 – interlaced wave-pattern round the flange of the rim, alternating triplets of vertical lines and figures of eight hanging from the flange (F1).
36) Orange-buff fabric with badly developed internal glaze. Sgraffito design B3 – interlace of inverted horizontal S S round the flange of the rim, vertical lines of stabs hanging from the flange (F1).
37) Orange-buff fabric with badly developed internal glaze. Sgraffito design C2 – between two marginal lines, triplets of wavy lines round the flange of the rim, triplets of wavy vertical and stabbed lines hanging from the flange (F1).
38) Orange-buff fabric with badly developed internal glaze. Sgraffito design D2 and C2 – between two marginal lines, triplets of wavy lines alternating with groups six verticals round the flange of the rim (F1).
39) Orange fabric with badly developed internal glaze. Sgraffito design D1 and B5 – double circles alternating with groups of four diagonals round the flange of the rim (F1).
40) Orange fabric with badly developed internal glaze. Sgraffito design C3 – groups of two wavy lines between two straight round the flange of the rim (F1).
41) Orange fabric with internal yellow glaze. Sgraffito design E1 – groups of three lines criss-crossed round the flange of the rim (F1).
42) Light buff to brown fabric with badly developed internal glaze. Sgraffito – irregular vertical and diagonal lines round the flange of the rim (F1).
43) Orange-buff fabric with internal clear glaze (F1).
44) Orange-buff fabric with badly developed internal glaze (F1).
45) Brown-buff fabric with badly developed internal glaze. Trailed slip decoration dabbed in radiating rows (F1).
46) Brown-buff fabric with badly developed internal glaze. Trailed slip decoration in groups of three vertical lines round the flange of the rim (F1).
47) Brown-buff fabric with badly developed internal glaze. Trailed slip dabbed decoration (F1).
48) Base sherd. Orange fabric with badly developed internal glaze. Trailed slip six-petal pattern (F1).
49) Brown-red fabric with badly developed internal glaze. Irregular splashes of trailed slip (F1).

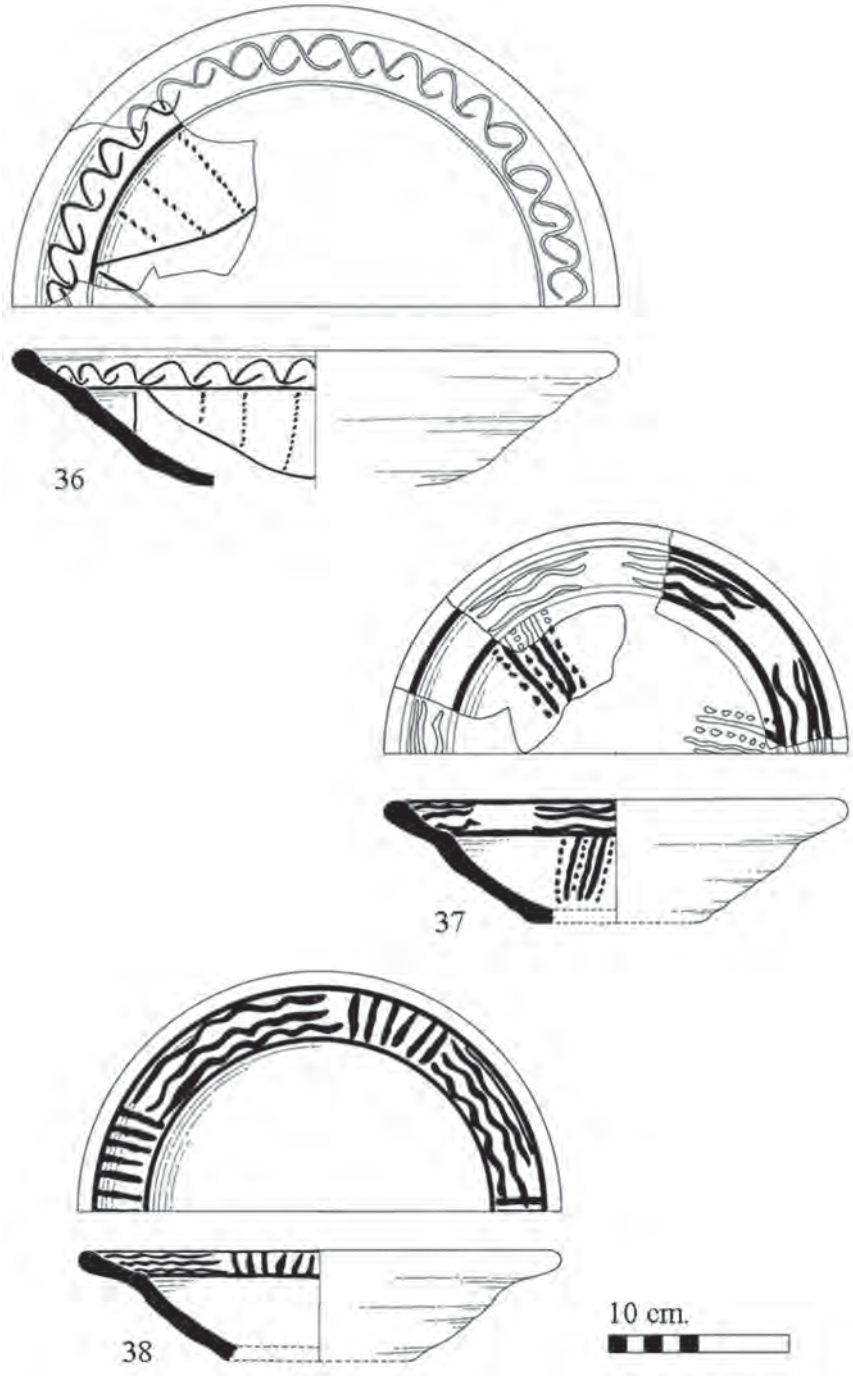


Fig. 6 The pottery: wide-rimmed bowls (36, 37 and 38)

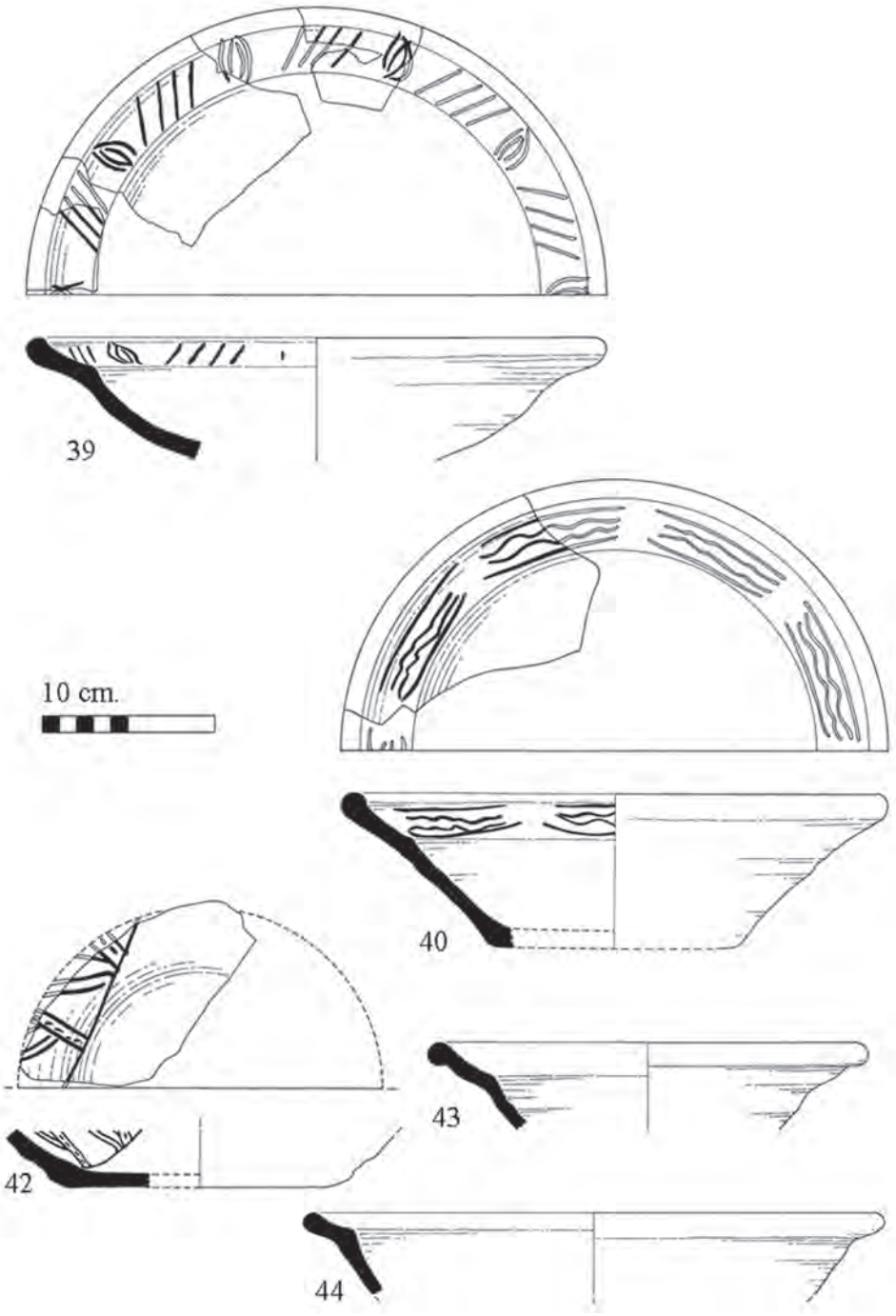


Fig. 7 The pottery: wide-rimmed bowls (39, 40, 42, 43 and 44)

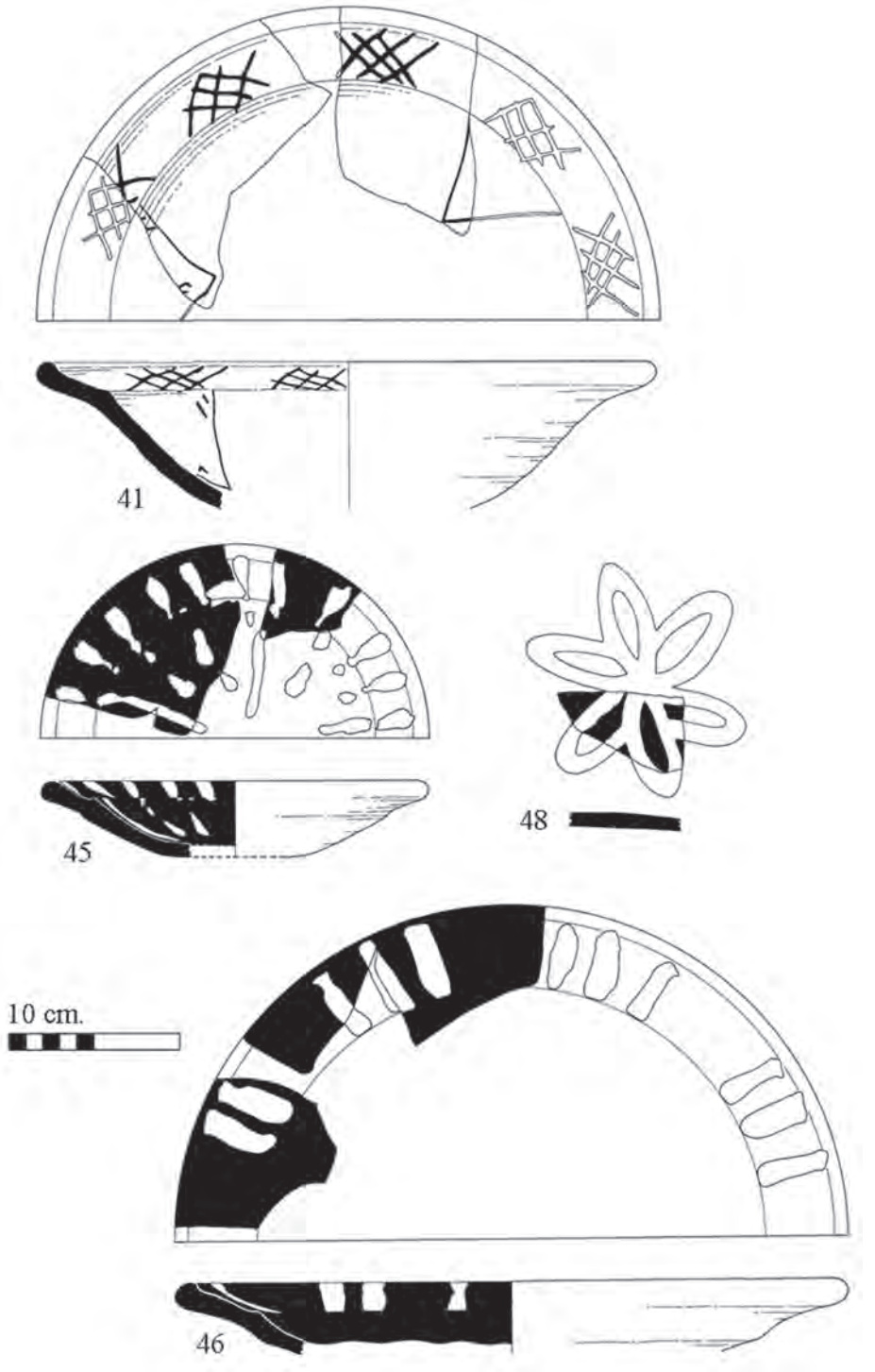


Fig. 8 The pottery: wide-rimmed bowls (41, 45, 46 and 48)

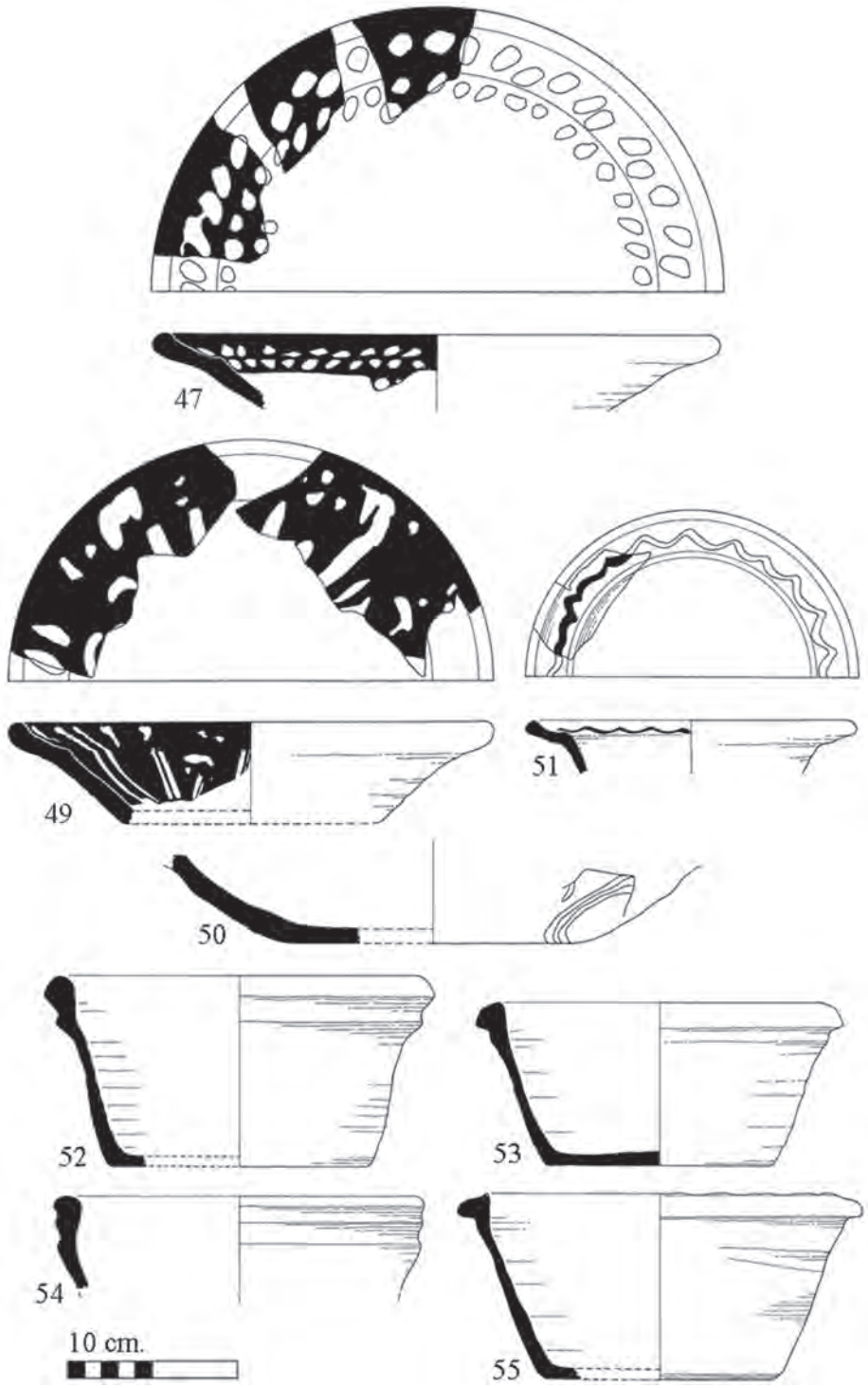


Fig. 9 The pottery: wide-rimmed bowls (47, 49, 50 and 51) and bowls (52, 53, 54 and 55)

Fig. 10 The pottery: meat dishes or roasting trays (56, 57 and 58), lids (59), large bowls (60), small trays (61), pottery irons (62), cruets (63 and 64), churns (65), pans (66) and ridge tiles (67)

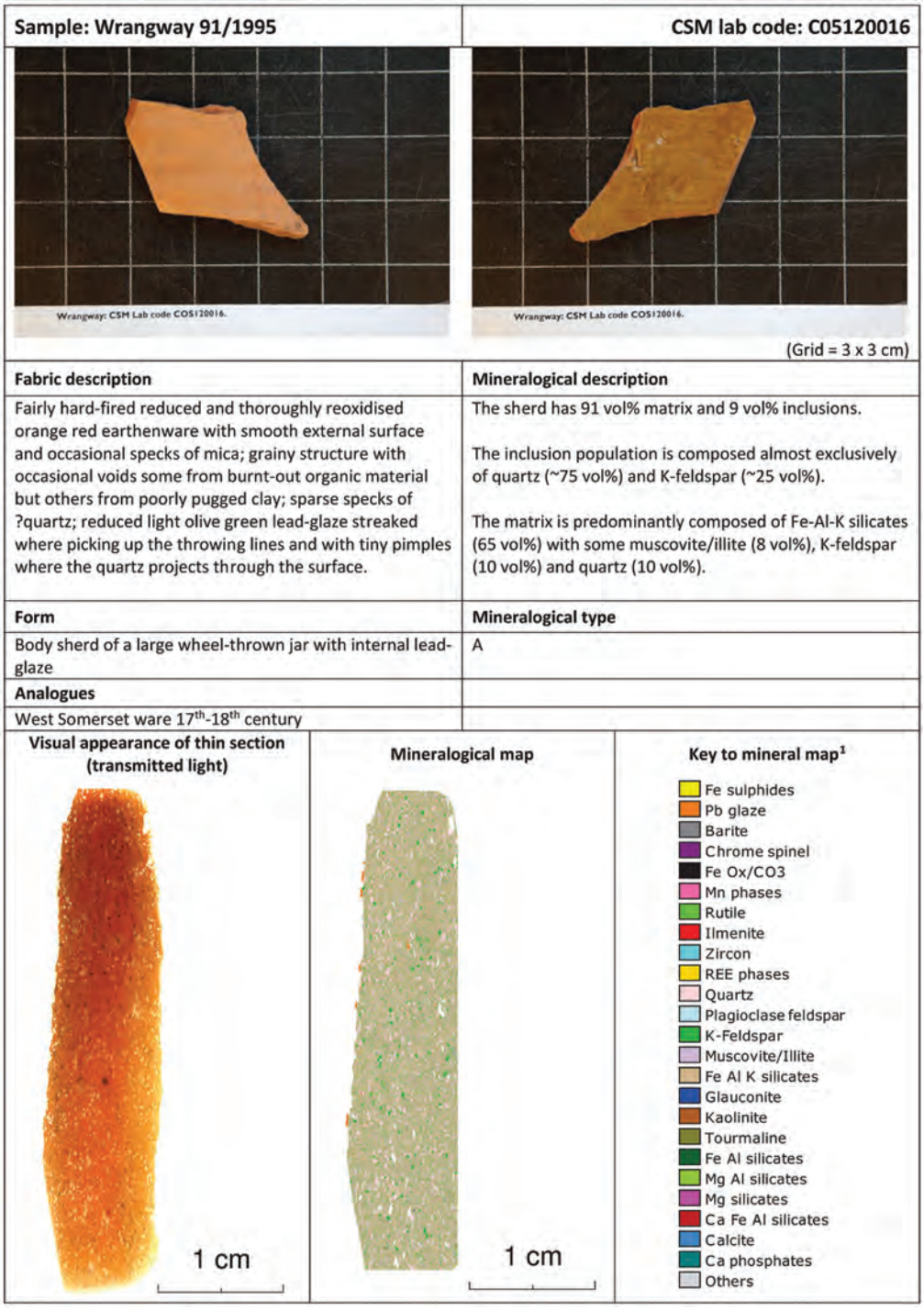


Fig. 11 Mineralogical report on a sample sherd from Wrangway part 1

Sample: Wrangway 91/1995 — **CSM lab code: C05120016**

Mineralogical composition

	Matrix	Inclusions	Bulk
Fe sulphides	0.008	0.000	0.007
Pb glaze	0.222	1.749	0.360
Barite	0.000	0.000	0.000
Chrome spinel	0.003	0.000	0.002
Fe Ox/CO3	0.014	0.019	0.014
Mn phases	0.197	0.000	0.179
Rutile	0.138	0.017	0.127
Ilmenite	0.039	0.041	0.039
Zircon	0.016	0.009	0.016
REE phases	0.002	0.000	0.002
Quartz	10.119	71.305	15.622
Plagioclase feldspar	0.576	0.000	0.524
K-Feldspar	10.293	26.307	11.733
Muscovite/Illite	7.865	0.251	7.180
Fe Al K silicates	65.045	0.134	59.207
Glauconite	0.070	0.000	0.064
Kaolinite	1.665	0.000	1.515
Tourmaline	0.012	0.000	0.011
Fe Al silicates	3.278	0.000	2.984
Mg Al silicates	0.199	0.162	0.195
Mg silicates	0.020	0.000	0.019
Ca Fe Al silicates	0.005	0.000	0.004
Calcite	0.178	0.000	0.162
Ca phosphates	0.032	0.004	0.030
Others	0.004	0.000	0.003

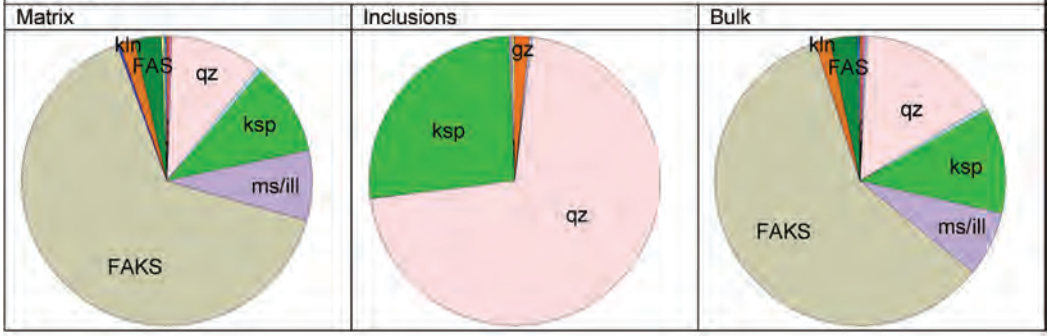
Particle size distribution

Matrix (< 63 µm) = 91.0 vol%
Inclusions (> 63 µm) = 9.0 vol%

Measurement statistics

Total measurement points = 3094633
Measurement spacing = 10 µm

Visual representation of mineralogy[1]



Notes
[1] gz = glaze, qz = quartz, pl = plagioclase, ksp = K-feldspar, ms/ill = muscovite/illite, FAKS = Fe-Al-K silicates, glt = glauconite, kln = kaolinite, FAS = Fe-Al silicates, cc = calcite

Fig. 12 Mineralogical report on a sample sherd from Wrangway part 2

50) Buff-brown fabric with badly developed internal glaze (F1). This sherd has an external trailed-slip design which may have resulted from its being stacked in a slip-trailed dish before the vessels were glazed.
51) Orange-buff fabric with internal clear glaze. Single irregular sgraffito line round flange of the rim (C3).

Type 15. Bowls (Fig. 9, no. 52, 53, 54 and 55).

52) Orange-buff fabric with internal yellow-green glaze (F1).
53) Orange-buff fabric with internal yellow-green glaze (F1).
54) Orange-buff fabric with internal brown glaze (F1).
55) Orange-buff fabric with internal white slip, notches cut round the top of the rim and internal yellow-green glaze (C3).

Type 16. Meat dishes or roasting trays (Fig. 10, nos. 56, 57 and 58).
The form is known from both Donyatt and Nether Stowey. For a good example of the type see Barton 1964, 211, figure 71, no.88.

56) Corner sherd with hand-moulded rim. Buff-brown fabric with internal under developed glaze (F1).
57) Corner sherd with pulled spout. Buff-brown fabric with internal under developed brown glaze (F1).
58) Corner and side sherd with lug handle. Brown to orange fabric with internal badly developed brown glaze (F1).

Type 17. Lids (Fig. 10, no. 59).
59) Small lid in orange-buff fabric (F1).

Type 18. Large bowls (Fig. 10, no. 60).

60) Orange-buff fabric with internal brown glaze (F1).

Type 19. Small trays (Fig. 10, no. 61).
61) Orange-buff fabric with badly developed internal brown glaze (F1).

Type 20. Pottery irons (Fig. 10, no. 62).
Examples of this type were found at Donyatt (Coleman-Smith and Pearson 1988, 313).

62) Orange-buff fabric with brown glaze on base. Upper surface with handle scars and stabbing (F1).

Type 21. Cruets (Fig. 10, nos. 63 and 64).
Number 64 may be a large cresset lamp. Similar examples were produced in North Devon for use with fish oil (Allan *et al*. 2007, 160-161).

63) Orange-buff fabric with all-over white slip under a yellow glaze (F1).
64) Brown-buff fabric with all-over green glaze (C2).

Type 22. Churns (Fig. 10, no. 65).

65) Cylindrical vessel. Orange-buff fabric with external iron-flecked brown glaze (F5).

Type 23. Pans (Fig. 10, no. 66).

66) Orange-brown fabric with internal brown to green glaze (C1).

Type 24. Ridge tiles (Fig. 10, no. 67).
The ridge tile fragments were all of the same basic type. Many sherds had signs of being used as placers in the kiln. Fabric B.

67) Orange-buff fabric with external patchy green glaze (F1).

Type 25. Kiln furniture (not illustrated).
There were twenty-three fragmentary sherds of this cylindrical form, all small and in a coarse fabric. The two sherds examined in 2014 were highly reduced and were from rough-thrown vessels with a base diameter of 130mm (surviving height 52mm) and 160mm (surviving height 112mm) respectively. The dimensions of these vessels are comparable with those from the Exeter Inn, Barnstaple, and Churchill's Farm, Hemyock.

Type 26. Kiln brick and tile (not illustrated).
There were sixty-six sherds. As with the other kiln furniture these were all small and fragmentary and in coarse fabric B. In 2014 there were found to be two distinct types. Type 1 is an 'oven' tile, box-moulded and scraped on the top and stabbed almost through from the base. They are approximately 23-32mm thick and can be reconstructed as about 110mm long. They taper from about 122mm to 98mm wide. Type 2 is a heavily reduced tile, pierced from front to back, and encrusted with fragments of pottery and glaze.

MINERALOGICAL REPORT
by Jens Andersen, David Dawson and Gavyn Rollinson

The following report is of one of 20 samples examined from Taunton Castle and production sites in Somerset and is reproduced here by kind permission of Chris Webster (figures 11 and 12). The full report will appear in Webster forthcoming. These samples were analysed at the University of Exeter Camborne School of Mines using automated scanning electron microscopy (QEMSCAN) with X-ray microanalysis, a technique which identifies and maps the size, character, texture and distribution of minerals of both the clay matrix and any added inclusions. The sample from Wrangway (fabric A) falls within group A together with samples from Langford Budville, Crowcombe and Nether Stowey. This goes some way to confirming the identification of the West Somerset group of fabrics derived from Triassic clays as distinct from the South (group D – Donyatt site 13) and East (group B1 – Wanstrow and Donyatt site 4) derived from Liassic materials (Andersen *et al.* forthcoming). Further samples from Wrangway are being examined as part of the programme led by Chris Smart of the University of Exeter to publish the iron and pottery production site at nearby Churchill's Farm, Hemyock (Devon).

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Terry Pearson, formerly of the Committee for Rescue Archaeology in Avon, Somerset and Gloucestershire, current address unknown.

David Dawson, 10 Linden Grove, Taunton, Somerset, TA1 1EF. 01823 274525 davidp@dawsonheritage.co.uk

Michael Ponsford, Hon Secretary M5 Research Committee, 12 Seymour Road, Bristol, BS7 9HR. m.ponsford@ipresent.co.uk

Jens Andersen, Camborne School of Mines, University of Exeter Tremough Campus, Penryn, Cornwall, TR10 9FE. J.C.Andersen@exeter.ac.uk

Gavyn Rollinson, Camborne School of Mines, University of Exeter Tremough Campus, Penryn, Cornwall, TR10 9FE. G.K.Rollinson@exeter.ac.uk