

THE INVESTIGATION OF A ROMAN TILERY AT DELL QUAY, WEST SUSSEX

by David Rudling

with contributions by Alister Bartlett, Caroline Cartwright, Jonathan Dance and Marcus Pepper

Recent fieldwork has confirmed the location of a Roman tiliary near Dell Quay, West Sussex. Although part of the site has been destroyed by coastal erosion, a geophysical survey undertaken on land immediately adjacent to the foreshore was successful in locating a substantial magnetic anomaly which may represent a kiln. Trial excavations also revealed the presence of other features associated with the tiliary. Finds from the site provide an insight into the range of products which was manufactured there, but are unfortunately of limited use for establishing the date of operation of the tiliary.

INTRODUCTION

The discovery of Roman tiles at Dell Quay was first recorded at the beginning of this century by E. Heron-Allen (1911, 83), who suggested that such finds betray 'the existence there of a Roman villa'. In 1942 Dr. W. H. C. Frensd 'observed tile and brick for a space of 40 yds. south of Dell Quay' (Anon. 1943, 76). He also excavated two small trenches, which 'showed, beneath a foot or so of top soil, a layer of box and flanged tiles'. These tiles clearly included wasters since some of them were 'half-fired, others subjected to great heat'. Sadly Frensd's excavations and finds were never published. A further reference to Frensd's fieldwork at Dell Quay appears in Wilson (1968, 203).

In 1982 an archaeological survey of Chichester Harbour failed to locate any Roman tile on the foreshore in the area of Frensd's discoveries (Cartwright 1984, 24). A further visit to the area in 1983 by Mr. F. Aldsworth, West Sussex County Council Archaeological Officer, and the author, resulted in the discovery of large quantities of Roman tile on the foreshore and eroding out of the harbour

bank. A surface inspection of part of the field adjacent to the area of foreshore which had yielded the finds of Roman tile failed to produce further traces of Roman material. The site (Fig. 1) is located on the Reading Beds clay and is approximately 1 km. south-west of Dell Quay (SU 83210192).

Due to the continuing threat to the site of both coastal erosion and possible damage by ploughing, it was considered desirable to undertake a more detailed investigation. Thus during September 1984 the Historic Buildings and Monuments Commission funded the Field Archaeology Unit of the Institute of Archaeology, University of London, to undertake a surface artefact collecting survey and a small trial excavation. Subsequently in 1986 additional survey work, a geophysical magnetometer survey, was carried out by staff of the Ancient Monuments Laboratory of the Historic Buildings and Monuments Commission. The finds from the surface artefact collecting survey and from the excavation, together with a copy of the site archive, have been deposited at the Roman Palace Museum, Fishbourne.

DELL QUAY 1984-6

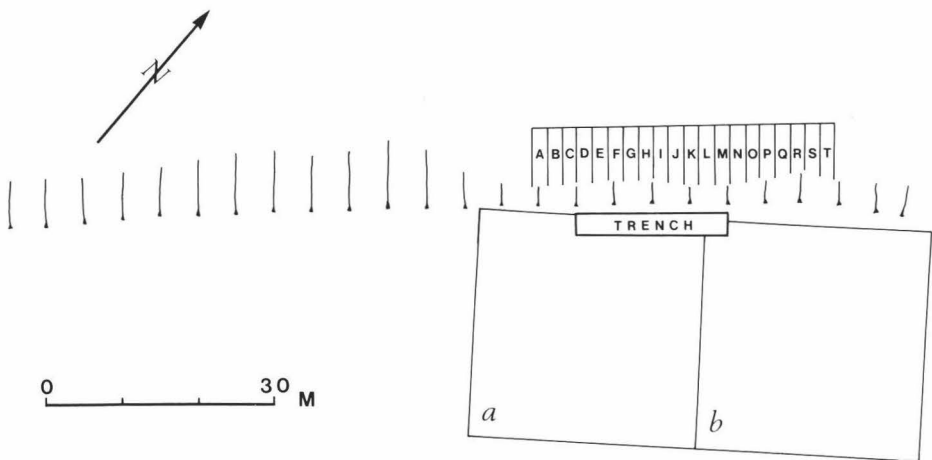
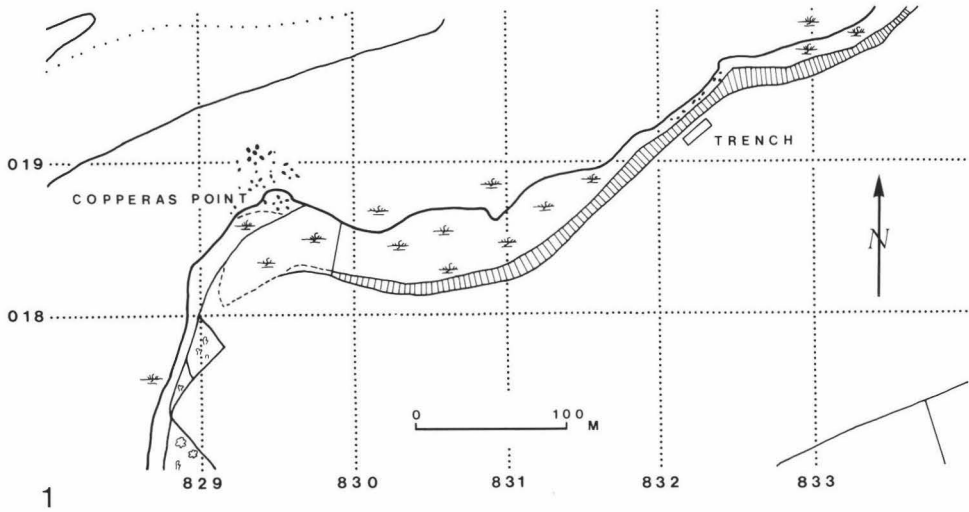


Fig. 1. Dell Quay Roman Tilery. 1: site location map; 2: trench and survey plans.

THE SURFACE ARTEFACT COLLECTING SURVEY

The survey consisted of the systematic collection of all archaeological artefacts from the surface of 20 two-metre-wide strips on the foreshore (Fig. 1, no. 2). The majority of the artefacts recovered were pieces of Roman tile, but other finds included sherds of Iron Age pottery and burnt flints (see below). The largest quantities by weight of Roman tile (see Table 1) were located in the 12 westernmost survey strips (i.e. strips A–L). To the east, the quantities of surface Roman tile were significantly smaller. The surface collecting survey was combined with an examination of the low cliff line (Fig. 2: microfiche, p. 47), although in the case of survey strips P–T this was impossible since in this area the cliff face is covered by modern sea defence materials. The survey revealed several areas where tile could be seen eroding out of the cliff, especially survey strips D–K. In particular the stretch of cliff in survey strip G was found to contain large quantities of tile.

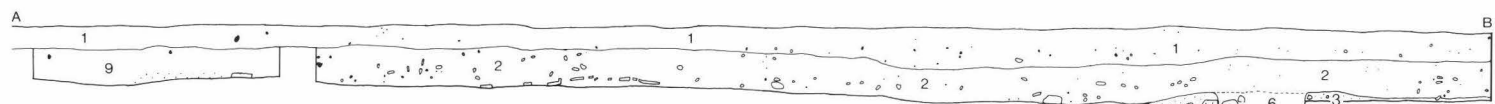
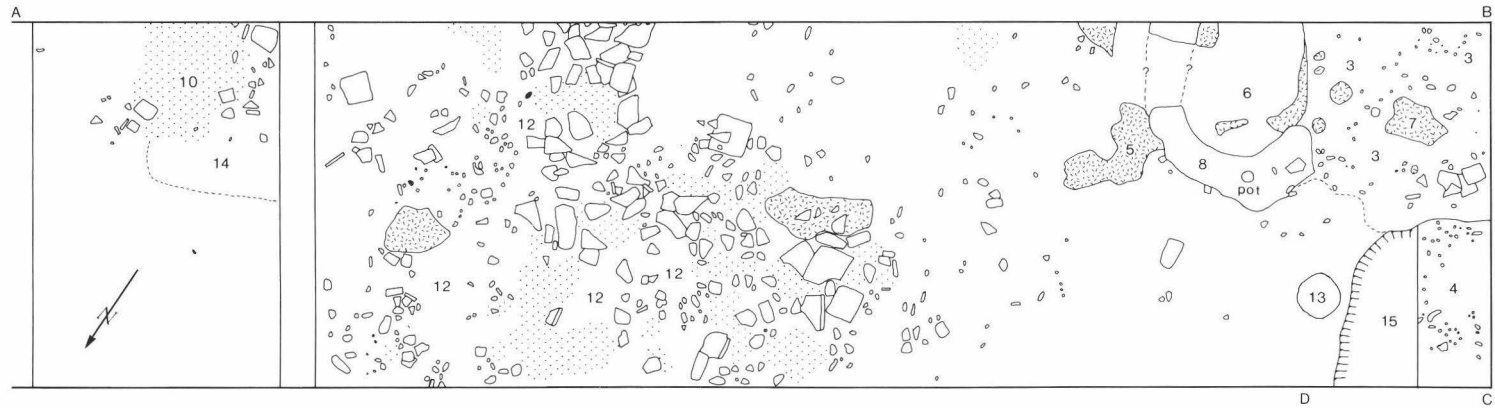
THE TRIAL EXCAVATION

As a result of the discovery of Roman tile eroding out of the cliff line, it was decided to excavate a trial trench in the adjacent arable field. The trench (Figs. 1, 3; Fig. 2: microfiche, p. 47) was 20 metres long and 3 metres wide. The whole of the trench was hand-excavated (using mattocks and shovels) to a depth of 0.25 metre. This method of topsoil removal enabled a reasonably careful search to be made for any Roman material which had been disturbed by modern ploughing. Very little archaeological material was actually recovered from the ploughsoil (Context 1) and the finds included a relatively small quantity of Roman tile, one sherd of Roman pottery, and a number of pieces of post-medieval glass and clay pipes. The absence in the topsoil of large pieces of burnt clay (kiln 'bricks' or furnace lining) is in marked contrast to the situation at the recently excavated Roman tilery at Hartfield, a site which is

also subject to ploughing (Rudling 1986).

A fairly large area of topsoil having been sampled, the rest of the trial excavation was concentrated on a much smaller area. Initially just the western half of the trench (Test Area 1) was continued, but later this was extended by a further two metres (Test Area 2). In both test areas the layer (Context 2) below the ploughsoil was found to contain a considerable quantity of fragments of Roman tile (Table 1; Table 2: microfiche, p. 49). Many of these tile fragments may have derived from the remains of a tile dump (Context 12), which was found at the eastern end of Test Area 1 (Fig. 3). At the western end of the trench (Fig. 3) were a number of traces of activities presumably associated with the Roman tilery. In the extreme north-west corner was part of a shallow pit/scoop/ditch (Context 15). The fill of this feature (Context 4) contained large quantities of burnt clay, which may be derived from kiln 'bricks' (see below). Unfortunately insufficient time meant that only part of the exposed area of Context 15 was excavated, and the recorded section has therefore been projected onto the main trench section (Fig. 3, Section B–C). To the south of Context 15 was an area of darker soil (Context 3) below Context 2. To the south-east was a thin deposit of charcoal (Context 8), which seemed to form an approximate 'ring' shape. Context 8 contained a complete base of a pottery vessel (catalogue no. 6: microfiche, p. 52). Contexts 8 and 3 have been cut (Fig. 3, Section A–B), possibly in fairly recent times since a sherd of post-medieval 'white china' was found on the surface of Context 6, the layer of clay contained by Context 8 (the 'ring' of charcoal). The interpretation of Context 8 is uncertain; perhaps it is the remains of a hearth or a dump of burnt fuel. To the north of Context 8 was another small patch of charcoal (Context 13).

In Test Area 2 there was a large area of burnt clay (Context 10), which was adjacent to an area of distinctive orange/blue clay.



KEY
CLAY BURNT CLAY TILE

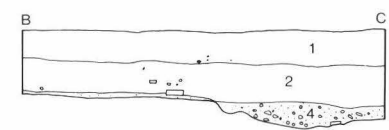
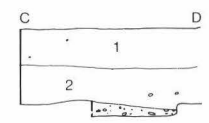


Fig. 3. Dell Quay. Trial trench: plan and sections.

THE GEOPHYSICAL SURVEY

The trial excavation had been successful in demonstrating that at least some of the features associated with the Roman tilerly still survive in the field adjacent to the harbour edge (it had been feared that such features might already have been destroyed by coastal erosion and/or ploughing). In order to obtain further information about any other features, especially kilns, and also the extent of the site inland, the Ancient Monuments Laboratory was requested to undertake a magnetometer survey. The survey was carried out in 1986 by A. D. H. Bartlett and L. Somers. The full report on their investigations is Ancient Monuments Laboratory Report G 5/86 (by A. D. H. Bartlett). An abridged account of the magnetometer survey is given below.

The Magnetometer Survey (by Alister Bartlett)

Two 30-metre squares were surveyed with traverses plotted at one-metre intervals using a fluxgate gradiometer and field recording equipment. The resulting plot is reproduced as Fig. 4 (microfiche, p. 48). The locations of the survey and excavation are shown on Fig. 1, no. 2, and the position of the (backfilled) excavation trench has also been marked on Fig. 4, plot i.

The survey plot shows one conspicuous magnetic anomaly of a size and strength which suggest that it is almost certainly a kiln (Fig. 4, plot i), but very little else. The plot (i) was recorded at a sensitivity which, on many sites, would be sufficient to detect any boundary ditches or other lesser industrial or domestic features which might be present, but here nothing is visible except some pieces of iron (narrow spikes on plot i) and a weak anomaly circled at D. This feature is not very clearly defined but is some two metres in diameter and could perhaps be a pit or waster heap. Additional scanning with the magnetometer for about another 30 metres to the south-east and south-west outside the area of the recorded survey failed to show any further identifiable anomalies.

The lack of any clear response other than from the probable kiln could mean that little else survives, but could also mean that any features present are undetectable because of the soil conditions. The site is on London clay, and it is often the case on clay that the soil is only weakly magnetic. This was confirmed by magnetic susceptibility measurements which gave readings of 15 ($\times 10^{-8}$ SI units/kg.) for a sample taken at the centre of the survey area, and 12 for a sample from near the south-east corner of the field. These readings are unusually low and show little of the magnetic enhancement of the fill. Only features with a strong remnant magnetization of their own, such as the kiln, are likely to be detectable.

The maximum amplitude of the kiln-like anomaly is some 75nT, which is weak for such a feature, but not unreasonable in the generally unresponsive conditions of this site. The anomaly cannot be seen very clearly at the high sensitivity setting used in Fig. 4, plot i, and so it is replotted at a reduced sensitivity on Fig. 4, plot ii (microfiche, p. 48). Here the feature can be seen to be represented by a single anomaly some 2.5 by 6 metres in size (as outlined), but little can be said about its internal structure (sometimes there are separate sub-peaks for kiln walls, or kiln and stokehole). A spurious anomaly caused by modern buried iron would probably be much less regular in appearance.

In conclusion, the survey appears to have located a substantial kiln lying close to the site of the trial excavation, but it failed to provide any clear evidence for other associated archaeological features, except for the indistinct anomaly at D. Given the magnetically unresponsive character of the site, the question of whether other such features are present, and their extent if so, remains unresolved.

DISCUSSION

The recent fieldwork at Dell Quay has confirmed the location of the Roman tilerly, parts of which (including a possible kiln) are not

TABLE 1
Tile Types by Weight (g.) per Context, Also Expressed as a Percentage of the Total Tile Weight per Context

<i>Context</i>	<i>Unclassified</i>		<i>Tegulae</i>		<i>Box-flue</i>		<i>Imbrices</i>		<i>'Flat'</i>		<i>Total weight from context</i>	<i>% of total weight lifted</i>
	<i>weight</i>	<i>%</i>	<i>weight</i>	<i>%</i>	<i>weight</i>	<i>%</i>	<i>weight</i>	<i>%</i>	<i>weight</i>	<i>%</i>		
<i>a. Survey</i>												
A	9,500	73.8	590	4.6	0	0.0	635	4.9	2,150	16.7	12,875	3.7
B	12,335	76.9	0	0.0	0	0.0	505	3.1	3,210	20.0	16,050	4.6
C	6,370	42.7	300	2.0	1,850	12.4	700	4.7	5,710	38.2	14,930	4.3
D	9,840	56.7	650	3.7	1,190	6.85	950	5.47	4,735	27.3	17,365	5.0
E	3,825	79.3	550	11.4	200	4.1	0	0.0	250	5.2	4,825	1.4
F	14,550	60.54	1,250	5.2	675	2.8	1,135	4.7	6,425	26.7	24,035	6.9
G	18,985	73.9	1,000	3.9	460	1.8	150	0.6	5,085	19.8	25,680	7.4
H	14,430	81.4	310	1.7	280	1.6	260	1.5	2,445	13.8	17,725	5.1
I	11,350	79.0	390	2.7	0	0.0	350	2.4	2,285	15.9	14,375	4.1
J	6,520	57.1	0	0.0	0	0.0	100	0.9	4,785	42.0	11,405	3.3
K	14,015	71.6	0	0.0	0	0.0	800	4.1	4,750	24.3	19,565	5.6
L	12,960	76.9	0	0.0	0	0.0	195	1.2	3,700	22.0	16,855	4.8
M	6,625	72.5	0	0.0	500	5.5	335	3.7	1,675	18.3	9,135	2.6
N	7,000	83.2	0	0.0	95	1.1	280	3.3	1,035	12.3	8,410	2.4
O	6,900	77.3	0	0.0	0	0.0	150	1.7	1,875	21.0	8,925	2.6
P	5,425	81.7	0	0.0	0	0.0	400	6.0	810	12.2	6,635	1.9
Q	7,175	75.8	0	0.0	55	0.6	355	3.7	1,880	19.9	9,465	2.7
R	2,565	80.0	0	0.0	0	0.0	140	4.4	500	15.6	3,205	0.9
S	5,350	71.3	200	2.9	70	0.9	555	7.4	1,325	17.6	7,500	2.2
T	5,420	94.4	150	3.6	100	1.7	70	1.2	0	0.0	5,740	1.7
<i>b. Excavation</i>												
1	200	6.0	845	26.0	60	1.8	100	3.0	2,050	63.0	3,255	0.9
2	21,455	26.0	17,895	21.7	5,760	7.0	3,470	4.2	34,025	41.2	82,605	23.7
3	875	16.4	1,175	22.0	180	3.0	0	0.0	3,075	58.0	5,305	1.5
12	1,190	45.4	0	0.0	180	6.9	50	1.9	1,200	45.8	2,620	0.8

immediately threatened by coastal erosion. The site is of considerable interest to students of Roman Sussex for two main reasons. Firstly, only a few tiliary sites have so far been examined in Sussex, these being at Wiston (Figg 1849); Itchingfield (Green 1970); and Hartfield (Rudling 1986). Secondly, it has been speculated in the past that the tiliary at Dell Quay may have been the source of some of the tiles used in the well-known Roman buildings at nearby Fishbourne (both the Palace and the recently discovered site by Fishbourne Creek).

The apparent scarcity of known and protected Roman tileries in Sussex means that this category of monument should be regarded as a high priority for preservation, or failing this for excavation. At Dell Quay the tiliary features in the trial trench at the edge of the field did not appear to be subject to much damage from the ongoing ploughing of the land. In addition, the absence of burnt clay on the surface of the field in the vicinity of the presumed tile kiln might suggest that at present this feature is also not being destroyed by ploughing.

Regarding the speculation that tiles from Dell Quay may have been used at Fishbourne, there is as yet insufficient evidence to confirm this idea. However, the full range of Dell Quay tile types is present at Fishbourne, and there would also appear to be similarities in terms of tile fabrics and patterns of combing on some of the box-flue tiles (M. Pepper pers. comm.). Possibly in the future, petrological studies will be undertaken in order to more precisely compare samples of tiles from Dell Quay and the Fishbourne sites. One particular type of Roman tile present at Fishbourne, relief-patterned tile, was absent from the finds recovered from Dell Quay. This may be a chronological or sampling factor, and it should be appreciated that only a small area was investigated at Dell Quay; at the much more extensively investigated tiliary site at Hartfield, relief-patterned tile accounted for only 0.29 per cent (by weight) of the tile finds. It thus remains a possibility that relief-patterned tile may have

been made at Dell Quay, or elsewhere in the vicinity of Fishbourne. Again, future petrological studies may help to resolve this problem.

In addition to Fishbourne there are also many other possible local sources of demand for the products of the Dell Quay tiliary, including the tribal capital at Chichester (for a distribution map of Roman sites in the Dell Quay area see Pitts 1979, fig. 2a).

The dating of the Dell Quay tiliary remains uncertain. Unfortunately the pottery evidence does not include closely datable types. The apparent absence of relief-patterned tiles, which were mainly produced *c.* A.D. 75–175 (Black 1985), may perhaps be a clue to dating, although there is no reason why a tiliary of this period need produce flue tiles with this particular type of keying. The results of the C14 dating analysis of the sample of charcoal from Context 8 may provide additional information. At present probably the most reliable method of dating kilns (and thus a kiln's products) is by archaeomagnetic dating. Now that the magnetometer survey has located a possible kiln at Dell Quay it would be useful in the future if a limited excavation could be undertaken in order to check the identification of the large magnetic anomaly, and if it is a tile kiln, to record its type and to obtain samples for archaeomagnetic dating purposes.

THE FINDS

The Tiles (by Marcus Pepper)

Although the fieldwork which took place at Dell Quay was essentially a survey and trial excavation, it did yield a large quantity (348,485 g.) of Roman tile which is likely to be representative of the site as a whole. The major part of the tile analysis was associated with statistical studies of the number and weight of fragments of different tile types, tile thicknesses and other dimensions, and tile fabric categories. The results of these studies are recorded on tile record sheets which form part of the site archive; see also Table 1; Table 2: microfiche, p. 49. Unfortunately most of the tiles were very fragmentary and in fairly abraded condition. Due to the large quantities of tile found it was both impractical and unnecessary to keep all but a small, representative collection for future reference and possible further analysis. This reference collection has been deposited at the Roman Palace Museum, Fishbourne. Most of the tile examined

came from the surface artefact collecting survey carried out along the foreshore. The tile finds from the survey and the trial excavation, which include tile wasters, confirm the theory that this site is that of a Roman tiler.

Fabric types

A visual analysis was undertaken of a representative sample of the tiles in order to attempt to distinguish between the various fabric types. The following fabrics were identified:

1. A soft, sandy orange to yellow fabric with small lumps and lighter streaks of clay and sparse inclusions of quartz.
2. A soft, sandy, pinkish-red fabric with large pieces of flint and small, rounded grog inclusions (up to 10 mm. in diameter).
3. A soft/hard purplish-orange fabric with very small pieces of quartz and iron-minerals.

Tile types

Five tile types were recognized: 'flat' tiles/bricks; tegulae; imbrices; box-flue tile (tubulus); and voussoir. For a general summary of Roman tile types see Brodrick (1983), and for tile production methods see Morgan (1979) and Foster (1986).

1. 'Flat' tiles/bricks (27.3% by weight)

This category formed a large proportion of the tiles recovered at Dell Quay. It probably includes, however, some unidentifiable tegulae fragments (i.e. flat pieces without their flanges), since it is assumed that most flat tiles with a thickness of less than 28 mm. are likely to be tegulae (see Foster 1986, 205).

2. Tegulae (7.3% by weight)

Most of the tegulae were recovered from Excavation Context 2. The numbers of tegulae recognized from the material collected during the survey along the foreshore were very low generally. A possible explanation for this would be that in many cases the processes of repeated wear action had eroded the flange away from the body of the tegula, thus making the tile fragments difficult to identify as belonging to this type. Such erosion processes may also account for the scarcity at Dell Quay of smear marks (such as the so-called 'signature marks') which are often found on tegulae. Only one smear mark was discovered, this being a pair of semicircles on a fragment of ?tegula (Fig. 5: microfiche, p. 50).

3. Imbrices (3.3% by weight)

Evidence from the pieces examined suggests a slightly tapering, well sanded sub-triangular mould.

4. Box-flue tile (tubulus) (3.3% by weight)

Nineteen pieces of box-flue tile (mostly from Context 2) exhibited combed decoration. The combing showed evidence of a comb with 6-7 teeth, the teeth reaching to a depth in most cases of 2-3 mm. The decoration patterns included diagonal combing, lines of combing meeting each other at various angles, and wavy combing (Fig. 5: microfiche, p. 50). There were no examples of relief-patterned decoration.

5. Voussoir

Only one recognizable fragment of voussoir was found. Its decoration consists of diagonal combing.

Unclassified tile (58.8% by weight)

The unclassified tiles, unfortunately, formed the largest category. In some contexts they accounted for as

much as 90% by weight of all the tile fragments. It is not surprising that much of this material came from the survey carried out on the foreshore, since this group of tiles would be the most susceptible to the processes of erosion. Nevertheless, the unclassified material was useful for calculating the total amounts of tile per survey section, and this helps to define the limits of the site.

Animal imprint

Only one animal imprint was found (on a piece of 'flat' tile). The imprint consists of two oval indentations, and is possibly the mark of a dog.

The Pottery (by Jonathan Dance)

Only a very small quantity of pottery (44 sherds weighing a total of 1,482 g.) was recovered from the excavations. All this material is summarized in Table 3, and a selection of the sherds is described in the catalogue (microfiche, pp. 51-2). Unfortunately, none of the Roman sherds was of any type which could be closely dated. In addition, there were also a few sherds of Iron Age pottery from the surface artefact collecting survey.

TABLE 3
Summary of the Pottery from the Excavations at Dell Quay, 1984

Context	Fabric groups						Total
	1	2	3	4	5	6	
1				1			1
2	1	6			1		8
6			1			1	2
8	1	1	2				4
9	2	2					4
12	3	12					15
14	8	2					10
Total	15	23	3	1	1	1	44

a. Pottery from the excavations

Fabric groups

Group 1: Roman Grey wares. The external colour is light grey, the cores are light to medium grey or beige, and the interior colour is grey or light beige. The wares have a range of tempers: fine to coarse sand; organic particles; well crushed grog; and large inclusions of burnt flint (irregular in shape, these are normally 1-4 mm. in size, although some are as large as 8 mm.). On the external surface the inclusions are smoothed; on the internal surface they protrude.

Group 2: Roman sandy light self-coloured wares. The exterior colour is pale yellow to medium brown, the interior is normally lighter in shade than the exterior, and the core shows a progression from the interior to the exterior shade. The temper is fine sand and grog.

Group 3: Roman Orange wares. The exterior colour is pale orange, the core is yellow-buff, the interior is pale yellow

over orange. The temper is sand, grog and organic material. The ware is extremely friable and weak.

Group 4: Roman Black wares. The colour is uniformly black, and the temper is coarse sand and organic material. The ware is very porous.

Group 5: medieval glazed ware. The exterior is a green lead glaze, the core is grey and the interior is flesh pink. The temper is fine sand.

Group 6: modern glazed ware. White china ware with a finely blistered glaze on both sides. The exterior colour has yellowed.

b. Prehistoric pottery from the surface artefact collecting survey

The survey yielded ten sherds of calcined flint-tempered pottery, datable to c. 600–100 B.C. (S. Hamilton pers. comm.).

Kiln 'Bricks'/Furnace Lining

Many of the excavated deposits yielded small and friable fragments of burnt clay. Some of these are probably the remains of kiln 'bricks' or furnace lining. Those from Context 4 were generally much larger and better preserved than those from other contexts, and 23 samples weighed a total of 2,650 g. Since several of the burnt clay fragments from Context 4 contained the impressions of plant material, samples were kept for analysis. These were sent to Pat Hinton who kindly reported that 'there are some surface impressions and inclusions of *Gramineae* sp. (grass) and some 'seed (unidentified) surface impressions'. Unfortunately these results are not as interesting as those from the Roman tiler at Hartfield, where similar kiln-brick fragments contained a lot of identifiable plant material (Hinton 1986, 222–3).

Charcoal (by Caroline Cartwright)

Contexts 3, 8 and 13 yielded a total of 96 g. of charcoal fragments. For full details per context see Table 4 (microfiche, p. 54). Wood species present include *Quercus* sp. (oak), *Crataegus* sp. (hawthorn), *Betula* sp. (birch), *Corylus* sp. (hazel) and *Salix/Populus* sp. (willow/poplar). The charcoal from Dell Quay derives from contexts which may be associated with tile kiln activities. It seems likely that much of the material represents kiln fuel remnants, but some may be associated with hearth areas.

A sample of charcoal from Context 8 has been submitted for C14 dating.

Marine Molluscs (by Caroline Cartwright)

The excavations yielded three shells of *Ostrea edulis* (oyster): two bottom valves from Context 1, and one top valve from Context 6.

Flintwork (by Caroline Cartwright)

Eight flint fragments were discovered during the excavations: six were found in the trial trench, and two were surface finds from the surrounding field. Most appear to be Mesolithic/Neolithic in technique and seem unlikely to relate to the main phases of activity associated with the

Roman tile kiln. Full details are provided on Table 5 (microfiche, p. 55).

Fire-Cracked Flints

The excavation and surface artefact collecting survey produced a total of 59 fire-cracked flints. The presence of 23 fire-cracked flints in Context 4, and the relatively high densities of such material from sections of the survey adjacent to the excavations (Sections D–G) suggest that most or all of these flints were probably burnt (perhaps not intentionally) during the time of the Roman tiler.

Miscellaneous Finds

a. A small fragment of burnt animal bone stained blue-green by copper alloy. Context 3.

b. Eleven fragments of clay-pipe stems. Post-medieval. All from Context 1.

c. Eight fragments of post-medieval glass, all from Context 1.

Contents of Microfiche

Excavation context details (p. 46)

Profile across foreshore and bank: Fig. 2 (p. 47)

Geophysics: magnetometer survey plots i and ii: Fig. 4 (p. 48)

Tile: the number of pieces of each tile type expressed as a percentage of the total number of pieces of tile lifted per context: Table 2; combed and marked tiles: Fig. 5 (by M. Pepper) (pp. 49–50)

Pottery: catalogue of a selection of pottery finds; drawings of some of the Roman pottery: Fig. 6 (by J. Dance) (pp. 51–3)

Charcoal: Table 4 (by C. Cartwright) (p. 54)

Flintwork: Table 5 (by C. Cartwright) (p. 55)

Acknowledgements

I wish to thank the farmer, Mr. Sawday, for allowing the excavations and geophysical survey to take place, and also for providing a camp site. The Chichester Harbour Conservancy kindly permitted the survey of the foreshore. The Historic Buildings and Monuments Commission funded the project, and also provided specialist help in the form of the services of the Ancient Monuments Laboratory. I would like to thank all the volunteers, especially Mr. M. Pepper (Site Supervisor) and Mr. C. Currie (Site Surveyor). Finally I would like to thank

the various specialists who have contributed drawings were drawn by Mr. M. Pepper and towards this report. The tile and pottery Mr. J. Dance respectively.

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