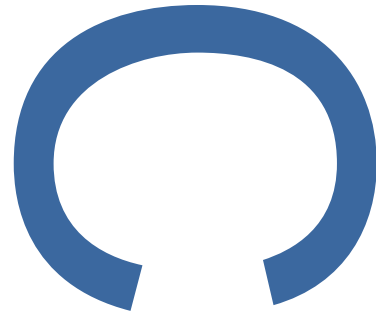
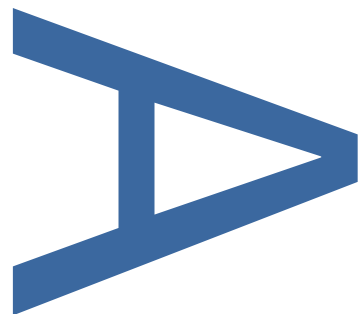


**Chatham Waterfront, Medway Street,
Chatham, Kent**



An Archaeological Evaluation



<i>Planning reference</i>	MC/18/3659		
<i>Local planning authority</i>	Medway Council		
<i>PCA report no.</i>	R14008	<i>Site Code</i>	KCWC19
<i>PCA project no</i>	K6307	<i>Date</i>	January 2020

PRE-CONSTRUCT ARCHAEOLOGY LIMITED

www.pre-construct.com

Project Information	
Site name	Chatham Waterfront, Medway Street, Chatham, Kent
Project type	An Archaeological Evaluation
Site address	Medway Street, Chatham, Kent
NGR	TQ 75625 68095
Local planning authority	Medway Council
Planning reference	MC/18/3659
Commissioning client	Archaeology Collective
Project dates	11 November – 6 December 2019
Archive site code	KCWC19

PCA Information			
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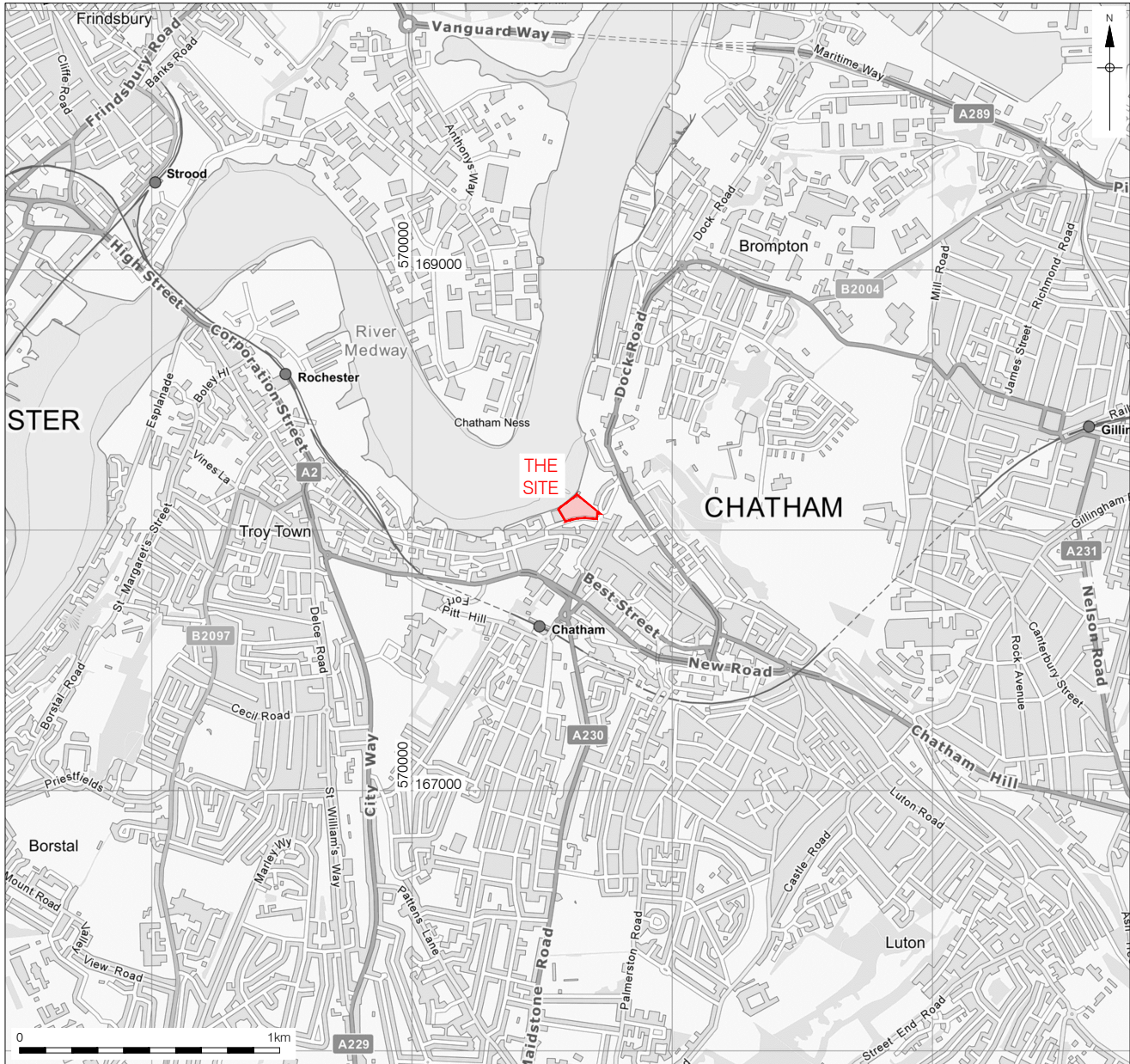
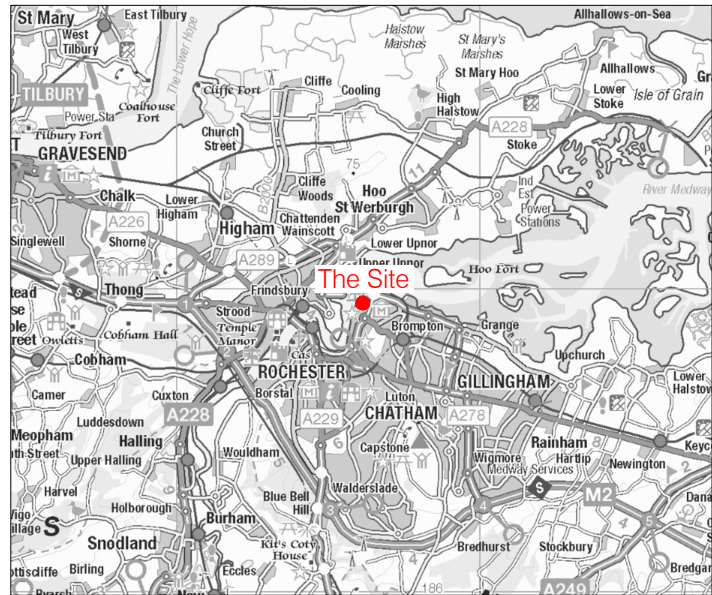
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1 ABSTRACT

- 1.1 This report details the results of an archaeological evaluation undertaken by Pre-Construct Archaeology at Chatham Waterfront, Medway Street, Chatham. The site is located on the north-western edge of Chatham town centre on the south bank of the River Medway adjacent to the Brook Low Level Pumping Station and is centred at National Grid Reference TQ 75625 68095.
- 1.2 The fieldwork was carried out over twenty days between the 11th of November and 6th of December 2019. Sixteen evaluation trenches were excavated across the site.
- 1.3 The excavation did not expose the underlying natural geology of the former shoreline or the earlier marshland which once occupied the area prior to land reclamation.
- 1.4 The earliest deposits encountered during the evaluation were interpreted as layers of made ground or the accretion of occupation material dating to the late 18th to early 19th century and relate to the period of land reclamation and light occupation prior to the more substantial development. Later a collection of brick-built walls, drains and floor surfaces had been cut into this occupation layer during the 19th century.
- 1.5 Remains belonging to a later phase of occupation, dated to the mid to late 19th century, overlay the earlier phase and consisted of numerous buildings which can be identified on historic maps. Structures belonging to the Wharf were also revealed, including riverwall, dockyard surface and warehouse buildings.
- 1.6 Most of the 19th century archaeological deposits across the site had been truncated by the introduction of later structures in the 20th century.
- 1.7 The architectural remains were overlain by modern, late 20th century made ground layers and a series of concrete surfaces which comprised the modern car parking area on the site.

2 INTRODUCTION

- 2.1 An archaeological evaluation was undertaken by Pre-Construct Archaeology Limited at the Chatham Waterfront, Medway Street, Chatham (Figure 1). The site is located on the north-west of Chatham Town Centre on the south bank of the River Medway, and is centred at National Grid Reference TQ 75625 68095
- 2.2 Planning permission was granted for the demolition and the redevelopment of the existing car park to provide 176 residential apartments, 1141m² of commercial floor space (A3/A4/B1), landscaping and associated parking (Medway Council Planning Reference: MC/18/3695).
- 2.3 An archaeological desk-based assessment of the site prepared by Allen Archaeology (2018) suggested that activity within the study area was mainly restricted to the post-medieval period, and relates to the expansion of the Royal Dockyard during the 17th and 18th centuries and more specifically to the increased building of wharves across the site in the late 19th to early 20th centuries.
- 2.4 The evaluation took place over twenty days between the 11th November and the 6th December 2019.
- 2.5 The project was managed by Zbigniew Pozorski (PCA) and was commissioned by the Archaeology Collective on behalf of the overall client. The archaeological work was supervised by Wayne Perkins.
- 2.6 The archaeological investigation was undertaken in accordance with the Written Scheme of Investigation prepared by the Archaeology Collective (2019) and approved by Ben Found, Senior Archaeological Office of Kent County Council, advisor to Medway Council.
- 2.7 All works were undertaken in accordance with the following documents:
- Chatham Waterfront, Medway Street, Chatham: Written Scheme of Investigation for an Archaeological Evaluation (Archaeology Collective 2019)
 - Generic Specification for Archaeological Evaluation, Kent County Council's (KCC)
 - Management of Research Projects in the Historic Environment (MoRPHE) Historic England 2015
 - Standard and guidance for an archaeological evaluation (Chartered Institute for Archaeologists (CIfA) 2014)
 - *Fieldwork Induction Manual: Operations Manual*, Taylor, J & Brown, G. 2009, updated 2018, PCA.
- 2.8 The site was allocated the unique site code KCWC19.



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Figure 1
 Site Location
 1:2,000,000; 250,000 & 25,000 at A4



3 PLANNING BACKGROUND

3.1 The planning permission was granted for the demolition and redevelopment of the existing car park to provide 176 residential apartments, 1141m² of commercial floor space (A3/A4/B1), landscaping and associated parking (Medway Council Planning Reference: MC/18/3695).

3.2 The scope of work outlined within the WSI was intended to address Condition 31 attached to the planning decision issued by Kent County Council on 11 July 2019. The condition reads as follows:

31. No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of:

(i) archaeological field evaluation works in accordance with a specification and written timetable which has been submitted to and approved by the County Planning Authority; and

(ii) further archaeological investigation, recording and reporting, determined by the results of the evaluation, in accordance with a specification and timetable which has been submitted to and approved by the County Planning Authority;

Reason: To ensure appropriate assessment of the archaeological implications of any development proposals and the subsequent mitigation of adverse impacts through preservation in situ or by record.

Reason for being a pre-commencement condition: Archaeological remains could be damaged by development therefore an approved programme of archaeological investigation must be in place before development starts. This document forms the Written Scheme of Investigation (specification) for the project and details the methodology by which the evaluation (archaeological trial trenching) will be undertaken.

3.3 Consultations with Ben Found, the Kent County Council (KCC) Archaeological Advisor for this area, resulted with the scope for archaeological evaluation agreed. The relevant Written Scheme of Investigation (Archaeology Collective 2019) was subsequently prepared presenting the details of the methodology of the evaluation by means of trial trenching. The WSI was approved by KCC ahead of the work commencing,

4 GEOLOGY AND TOPOGRAPHY

- 4.1 According to the British Geological Survey (BGS) of England and Wales, the local geology consists of chalk of the Lewes Nodular Chalk Formation (BGS 2019 online). The solid geology is overlain by superficial deposits of beach and Tidal Flat deposits (undifferentiated) – clay, silt and sand – formed in the Quaternary Period indicating a local environment previously dominated by shorelines (BGS 2019 online).
- 4.2 The site was located on made ground c.4m Ordnance Datum (OD) covered with a concrete and tarmac layer of c.1m thickness.
- 4.3 The study site comprised the Brook Low Level Pumping Station and a surrounding car park which had been laid out on differing levels around the building. It is located on the north-west edge of Chatham town centre and situated on the south bank of the River Medway (Figure 1).
- 4.4 Preliminary geoarchaeological evaluation was carried out by Quest (2019). It found that the natural gravels of the ancient river terrace existed at c.-1m OD at the northeast of the study area and c.1.5m OD at the south-west, indicating that the site lay towards the southern edge of a Holocene floodplain. It was overlain by alluvial clays at between c.3m – 2m OD and were up to 3.5m thick in some places.

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The Archaeological Desk-Based Assessment for the site was undertaken by Allen Archaeology and its summary is presented below as outlined in the WSI (Archaeology Collective 2019).

- 5.1 Evidence of prehistoric activity is limited to the find spots of Bronze Age and Iron Age pottery recovered from a ditch c.350m south of the Site. Roman pottery was also recovered from this site. The Site's position along the river indicates that it was likely prone to flooding or marshland development, which would have been utilised for its resources, but left little prehistoric archaeological trace.
- 5.2 Evidence of Roman activity, in addition to the pottery discussed above, is limited to the route of Watling Street, which the modern alignment of the A2 now follows, and the identification of a lead coffin c.410m north of the Site. There is some evidence to suggest that the local resources were exploited during the Roman period, with the Chatham area possibly being used for fishing and salt production.
- 5.3 Evidence of early medieval activity is limited to the identification of an inhumation burial, c.450m north east of the Site. Place-name evidence suggests some early medieval settlement activity may have been present, possibly on the higher ground above the River Medway.
- 5.4 Chatham was listed in the Domesday Book as being a very large settlement of 52 households, with land for 16 ploughlands, a church and a mill. It has been suggested that the mill was located c.220m north east of the Site. Other medieval assets recorded within the study area comprise a chapel and the find spots of coins.
- 5.5 The majority of assets recorded within the study area date to the post-medieval and modern periods and reflect the expansion and development of the area during these periods. The River Medway was begun to be fortified during the early 16th century and a Royal dockyard was also constructed during this period, which was expanded during the 17th and 18th centuries. Permanent land-based defences were built in the early 18th century as a result of the importance of Chatham Dockyard and the growing fears of landward attacks. The resulting structures, Fort Amhurst and the Brompton Lines, are scheduled monuments. The defensive landscape, and the town, continued to expand during the 19th century. Chatham was targeted during both World Wars, largely as a result of the presence of Chatham Dockyard and Brompton Barracks.
- 5.6 Cartographic and aerial photographic evidence shows buildings across the Site from the 19th century onwards, with the land towards the north of the Site having been reclaimed by the 1960s.

6 METHODOLOGY

- 6.1 The evaluation followed the methodology set up in the Written Scheme of Investigation for the project by Archaeology Collective (2019).
- 6.2 The WSI proposed twelve trenches measuring 20m x 1.80m (Trenches 1, 2, 9 -13 and 15 -19) and seven measuring 10m x 1.8m (Trenches 3 - 8 and Trench 14). One stepped trench would be 10m x 5m descending to 2.4m BGL (Trench 20). In total, sixteen of the planned trenches were excavated. Trenches 9, 15 and 18 were opened initially and all revealed the concrete ground beams and steel shuttering of the former river wall as anticipated. Trenches 16 and 17 were then annulled as they were positioned in an area of even greater made ground as they were located closer to the river's edge. This approach was laid out in the WSI. Trenches 3 and 4 were abandoned as live services were detected within their footprint and they were located within the mouth of the main access to the site. This loss was compensated for by the extension of Trench 2 to the north-west and the change was approved on the site by Ben Found. Trenches 7 & 8 and Trench 14 contained only further modern concrete. Trench 13 was abandoned due to aforementioned obstructions of live service mains. Finally, stepped Trench 20 exposed a pocket of perched water and possessed deposits contaminated with oil and petrol which prohibited detailed investigation although it was still excavated to the full 2.4m BGL (Figure 2).
- 6.3 Trench positions and OS datum levels were established on site by PCA using a GPS-system.
- 6.4 All machine (and manual) excavation was conducted under archaeological supervision. A CAT scanner was used by PCA prior to the opening of any trench to identify and avoid live services.
- 6.5 Excavation was carried out by 13t tracked excavator fitted with a toothless ditching bucket under a strict PCA's supervision, with spoil mounded at least 1m from the edges of the trenches. Machine excavation was undertaken in spits of 100mm at a time until either significant archaeological strata or natural ground was exposed, whichever was encountered first.
- 6.6 Each trench was fully investigated and recorded, and features tested to ascertain their function, date and significance. All arisings from each trench were carefully inspected to ensure that any artefacts were recovered. The trenches and spoil heaps were scanned with a metal-detector at regular intervals to enable finds recovery.
- 6.7 The trenches were backfilled by the PCA using the same type of machine as for opening the trenches, replacing the excavated arisings in the reverse order of excavation.
- 6.8 Once excavation had been completed and the trenches cleaned, all deposits were then recorded on proforma context sheets. Trench plans were drawn at scales of 1:50 and 1:20 and sections were drawn at a scale of 1:10 or 1:20. A digital photographic record was also kept of all eleven trenches.
- 6.9 All features were investigated and recorded in order to properly understand the date and nature of the archaeological remains on the site and to recover sufficient finds assemblages to assess the chronological development and socio-economic character of the site over time.

- 6.10 The recording systems adopted during the investigations were fully compatible with those most widely used elsewhere in Kent, which is those developed out of the Department of Urban Archaeology Site Manual and presented in PCAs *Operations Manual 1* (Taylor and Brown 2009, updated 2018).
- 6.11 In this report all context numbers (cuts, layers and fills) are written in squared brackets [].
- 6.12 The complete archive produced during the evaluation, comprising written, drawn and photographic records, will be deposited with a local museum with site code KCWC19.

7 PHASED ARCHAEOLOGICAL SEQUENCE

7.1 Phase 1: Post Medieval (c.AD 1750-1850)

Context	Trench	Highest (m OD)
28	5	3.47
29	5	3.51
31	5	3.40
41	1	3.27
42	1	3.55
43	1	3.27
58	20	3.53
93	12	3.17

Trench 1 (Figure 4)

- 7.1.1 A deposit of dark grey to blackish clayey silt was recorded in Trench 1 as [41] / [42] / [43]. This has been equated to layers found at similar levels in the base of Trenches 2, 5, 12 and 20. It contained fragmentary CBM, pottery, glass and heavily corroded iron as well as flecks of charcoal and degraded mortar and chalk inclusions. It is interpreted as an 'occupation' layer comprised of a mixture of garden soils and domestic refuse. It is thought to relate to human habitation coupled with the ongoing land reclamation activities taking place within the study area during the late 18th into the early 19th centuries. This layer was associated with a layer of redeposited chalk found across the site [65/66/69].
- 7.1.2 The layer was encountered at its highest at 3.55m OD and at its lowest at 3.27m OD in Trench 1. However, it must be noted that in each case it was found in a truncated state (Figure 4, Plate 1).
- 7.1.3 At the south-east end of Trench 1, Pit [50] was revealed to be sub-circular in plan (although poorly defined) and had been cut by later brick-built drain [48] described below. Fill [49] was composed of a friable, dark grey clayey-silt with frequent oyster shell inclusions and possessed occasional flecks of charcoal and degraded mortar. Pottery sherds and fragmentary glass suggested an early 19th century date. It was recorded at 3.44_m OD (Figure 4, Plate 2).
- 7.1.4 Pit [45] was sub-oval in plan, 2m in diameter and located at the western end of the trench. Finds were recovered from the surface of its fill [44] which included fragments of local Medway peg tile (c.AD 1300-1800) but it was not fully excavated. It was recorded at a height of 3.78m OD (Figure 4, Plate 3).

Trench 5 (Figure 3)

- 7.1.5 The occupation layer had been truncated in Trench 5 by a large storm drain running north-east to south-west and identified as contexts [28] / [29] / [31]. A small, hand-excavated sondage made up against the section in the north-west end did not find the base of the deposit but enabled the retrieval of further dating material. A fragment of peg tile was dated c.AD 1600-1900 (Appendix 3) whilst a fragment of a clay tobacco pipe also gave an earlier date of c.AD 1730-1790 (Appendix 4) both dates falling within the date-range suggested for this phase. The layer varied to between 3.51m OD and 3.40m OD in height across the trench.

Trench 20 (Figure 6)

- 7.1.6 In Trench 20, layer [58] was sealed under the rammed chalk floor [57] of Building 7. Unfortunately, contamination of the layer by fuel residue and inundation by perched water prohibited detailed study or further excavation. It was recorded at a level of 3.53m OD.

7.2 Phase 2: Post Medieval (c.1850 – 1900)

Trench 1 (Figure 4)

- 7.2.1 Trench 1 contained five structures relating to drainage and domestic refuse disposal but lacked structural elements directly related to the buildings themselves. It has been interpreted as an area was likely to have been occupied by tenement backyards. The trench was located in an area known to have been previously occupied by terraced housing as depicted on the 1898 Ordnance Survey map.
- 7.2.2 At the eastern end of the trench, drain structure [48] was rectangular in plan, measured 1.6m by 1.10m, and was constructed from local unfrogged brick and bonded with grey clinker mortar which dates it to c.AD 1750-1900 (Hayward 2019). Only the top course was exposed, so it was not possible to see the bond in detail. The structure was composed of a mix of stretcher and headers of uneven length, suggesting there may have been some re-use of material. It was recorded at 3.54m OD (Figure 4, Plate 4).
- 7.2.3 A short section of brick-built gully or drain [51] was uncovered, measuring 1.42m long by 0.42m wide. It appeared to have been constructed from re-used red post-Great Fire brick which dates to c. AD 1750-1900 (Hayward 2019) and had been laid on a bed of sand [42] suggesting an *ad hoc* structure of recycled materials. It was recorded at 3.52m OD (Figure 4, Plate 5).
- 7.2.4 At the south-west end of Trench 1, Pit [53] had been cut as a rectangle in plan, measuring 2.10m by 1.50m, although it did not possess a brick lining as its shape suggested. A few finds were recovered from the surface of fill [52]. These included a sawn pig bone (indicative of butchery) as well as fragmentary pottery and glass which suggested a mid-19th century date (Jarrett 2019). It was recorded at 3.25m OD (Figure 4, Plate 6).

Trench 2 (Figure 3)

- 7.2.5 In lieu of Trenches 3 and 4, Trench 2 was extended to the northwest to compensate. However, due to strong power signals at two points along its length, it was interrupted at those points to avoid potential live services.
- 7.2.6 Excavation uncovered a length of wall constructed of yellow stock brick oriented north-west to south east [62] that had been built upon stepped footings [63]. The construction cut for the building was plainly visible [61] running on the east side of the wall and which had subsequently been backfilled [60]. No other features were present in the excavated trench.

Trench 6 (Figure 3)

- 7.2.7 A small area of the original dockyard surface was exposed in the north-west end of Trench 6 which consisted of a flat concrete surface [38] / [39] into which a gully or rail [35] / [37] had been recessed by 0.26m. Within the gully a horizontal timber (or sleeper) had been laid [36] which was suggestive of a rail, possibly for the movement of a crane or other type of machinery on the dock surface. The Ordnance Survey maps of 1898 and 1909 show the tracks for large, traversing cranes along the wharf frontage but these were possibly on a much larger scale to that in Trench 5. The gully or slot was oriented north-west to south-east, so was aligned perpendicularly to the river frontage, suggesting it would have continued in the direction of the dock edge at the west. The dock surface was recorded at a level of 3.46m OD (Figure 3, Plates 7-9).

Trench 9 (Figure 3)

- 7.2.8 The riverwall and frontage to Holborn Wharf was modified a number of times; first shown on the Chatham Tithe Map of 1842 and then remodelled by the O.S. Map of 1898. Storage tanks (no indication as to what they contained) were added by 1909 but they were removed and the river wall/dock frontage advanced northwards by the 1950's (O.S. Map 1955).

Trench 10 (Figure 3)

- 7.2.9 At the southern end of Trench 10 a sub-circular redbrick well [83] was recorded which measured c.1m in diameter. A construction cut [84] had been made to accommodate the construction of the well [83]. The void between cut and well had been backfilled with a compact, brownish light grey silty clay [82] which contained occasional fragments of CBM and flecks of charcoal, although no finds were recovered from the feature. It was recorded at 3.09m OD (Figure 3, Plate 10).

Trench 12 (Figure 5)

- 7.2.10 Trench 12 contained a number of brick-built walls (as well as a length of robbed-out wall) that may relate to the late 19th century residential occupation on the south side of the study area and which included a public house called the Kings Arms as shown on the Ordnance Survey

Map of 1898.

- 7.3 The component structures of Building 2 had been cut into the re-deposited chalk layer [66] / [69] and constructed upon a compacted clay levelling layer [96] / [100] which had been added as the foundation. A residual fragment of peg-tile c. AD 1300-1800 was recovered from this clay which may have been residual and reincorporated into the clay foundation layer. Wall [68] had been built within construction cut [95] / [99] and backfilled by [98]. The bricks were frogged, post-Great Fire type dating to c. AD 1750-1900 and bonded with a brown-grey clinker mortar (Hayward 2019). Following the backfilling of the construction cut, a brick-built floor [101] had been laid without mortar. The building was on the same north-west to south-east axis as the surrounding structures. Whilst only the lower three courses of [68] remained *in situ* they were recorded at a height of 4.13m OD (Figure 4, Plates 12-14).
- 7.3.1 Building 3 comprised substantial footings [71] that were a mixture of fragmentary red brick and grey cement which had a substantial thickness of 0.70m. The footings were oriented north-west to south east which tallies with the orientation of the buildings on the site in the late 19th century according to the O.S. maps. The construction cut for the footings [88] had penetrated through the layer of redeposited chalk [66] (that underlay Building 2 to the east) confirmed by way of excavation of a small sondage against the footings (Figure 4; Section 30). It showed that the construction cut had gone deep enough to cut underlying layer [93] (belonging to Phase 1) redepositing earlier material into its backfill [70]. A later structure, Building 1, was constructed over this footing in the later phase and is described below (Plate 11).
- 7.3.2 Robber trenches located immediately to the west (Building 4) may be part of the same building.
- 7.3.3 Building 4 may be a continuation of, or, related to Building 5 (to its immediate west) but whose walls had been subsequently robbed out and have survived only as a cut [76]. The robber trench was clearly visible in plan, with fill [75] composed brownish grey sandy clay with fragmentary CBM inclusions. It could be seen clearly where the wall had been tied into the other structures either side of it. The top of the construction cut was recorded at 3.59m OD.
- 7.3.4 The remaining walls [78] of the Building 5 were interpreted as the cellar for the Kings Arms public house which once stood close to this site. The interior of the wall had been skimmed with plaster and whitewashed, presumably against damp. Its contents were a backfill [78] of demolition material within which 20th century bottles and glass were present. The walls remained up to a height of 4.27m OD, whilst the lowest reading in the cellar was taken at 3.26m OD amongst the rubble. However, the base or floor was not uncovered, as it would have been beyond the regulation maximum depth of 1.2m BGL (Figure 4 Plate 15).

Trench 19 (Figure 3)

- 7.3.5 Building 6: excavation revealed a continuous length of wall [2] / [11] oriented north-west to south-east. It was located on the same alignment as a building (or boundary wall) seen on the 1898 Ordnance Survey Map which marks it as the division between the wharf buildings on Bessent's Wharf. It consisted of two courses of unfrogged red brick bonded in a clinker mortar

[2] which had been laid on a stepped foundation [11]. The wall measured only 0.33m in width when exposed in a small sondage excavated next to the junction of the wall [2] and internal dividing wall [6]. It revealed a relatively insubstantial structure, almost too narrow to be considered a load-bearing wall. The wall survived to the height of c.3.70m OD along the length of the trench. It had been laid within a construction cut (which ran along the west or 'internal' face) and subsequently backfilled [3]. The backfill was soft, light grey gravelly sand which contained a fragment of pan tile and unfroged brick – both of which date roughly to c.AD 1700-1900 (Hayward 2019) but likely to be mixed, residual back-fill material (Plates 16-19, Figure 3; Section 9).

- 7.3.6 The construction cut backfill had subsequently been built over in three places, where three single brick-width dividing walls [6] / [7] / [8] had been added perpendicularly to further subdivide the interior of the building or to create a number of storage 'cells' in an outside yard.

Trench 15 (Figure 3)

- 7.3.7 A large ground beam was exposed in Trench 15 which turned out to be a remnant of the original riverwall for Holborn Wharf, as depicted on the OS map of 1955 prior to the whole riverwall being advanced further north to align with the Water Pumping Station.

Trench 18 (Figure 3)

- 7.3.8 A depth of concrete, in places exceeding 1.3m BGL, was encountered in Trench 18 requiring several phases of breaking out. At the north-east end the old harbour wall of Holborn Wharf - as depicted on the 1842 Tithe Map - was uncovered. The riverwall was in this position until it was advanced northwards in the 1960's to incorporate the Water Pumping Station.

Trench 20 (Figure 6)

- 7.3.9 A short section of wall [5] oriented north-east to south-west was exposed under the concrete in Trench 20. It was composed of several brick types, including a red coloured Wren-type brick and an unfroged red sandy brick, both bonded in a brown-grey clinker mortar. The mortar was a 19th century recipe, so the earlier brick must have been reused in this instance (Hayward 2019) (Figure 6, Plates 20 & 21).
- 7.3.10 The wall had been built on a rammed-chalk floor [57], c.0.24m thick, which may have been the cellar floor. However, it was unknown as to whether the two structures had been conceived at the same time and were part of the same structure or if the construction of wall [5] had taken advantage of the existing floor [57]. The chalk floor, in turn, sealed occupation layers [58] (Plates 23 & 24, Figure 6; Section 21).

7.4 Phase 3: Modern 20th Century (1900 – present)

Trench 1 (Figure 4)

- 7.4.1 In Phase 1 of the excavation in Trench 1 a series of modern brick-built walls [24] / [25] were

recorded at a height of 3.85m OD upon which a small area of paving [26] was visible. The walls were removed to expose the footings [46] / [54] / [55] lower down at 3.29m OD.

Trench 5 (Figure 3)

- 7.4.2 A short length of wall composed of modern yellow stock brick was exposed in the south face of the trench at 3.70m OD.

Trench 6 (Figure 3)

- 7.4.3 The dockyard concrete surface [38] / [39] described above was sealed by a considerable depth of modern demolition and backfill [34] / [40].

Trench 12 (Figure 5)

- 7.4.4 A small area of modern paved flooring [73] was recorded at 4.49m OD, laid against a yellow stock-brick wall [72] recorded at 4.45m OD. The ensemble, labelled as Building 1, had been built upon the existing footings [71] beneath, which were oriented north-west to south-east.
- 7.4.5 The backfill [94] of cellar [78] was composed of fragmentary CBM and demolition material, appears to have been derived, presumably, from the destruction of Building 5, the public house itself.

Trench 19 (Figure 3)

- 7.4.6 In Trench 19, the wharf building wall [2] / [11] had been subsequently covered by a series of layers [10] / [15] / [19]. Layer [15] was a pronounced layer of burning which may relate to either the destruction and/or demolition of the building or could represent a localised burning event.

PLATES



Plate 1: Trench 5, view to the north-west, scale 1m. Occupation layer [28] / [29] cut by modern storm drain.



Plate 2: Trench 1, Pit [50], view to north, scale 1m. Drain [48] in foreground



Plate 3: Trench 1, view to north, scale 1m. Pit [45] cuts earlier occupation layer [42].



Plate 4: Trench 1, view to the north-east, scale 1m. Brick-built drain or soakaway [48].



Plate 5: Trench 1, view to west, scale 1m. Gully or drain [51] composed of re-used bricks



Plate 6: Trench 1, view to the north, scale 1m. Rectangular-shaped Pit [53]



Plate 7: Trench 6, view to north-west, scale 1m.

Slot (or rail) [35]. Earlier borehole to the right in photo



Plate 8: Trench 6, view to south-east, scale 1m. Slot (or rail) [35]



Plate 9: Trench 6, view to the south-west, scale 1m. Timber (or wooden sleeper) within rail [35].



Plate 10: Trench 10, view to north-west, scale 1m.
Brick-built well [83] within construction cut [84].



Plate 11: Trench 12, view to south, scale 1m. Wall [72] (Building 1) built on top of footings [71] (Building 3).



Plate 12: Trench 12, view to south-east, scale 1m. Building 2, walls [68].

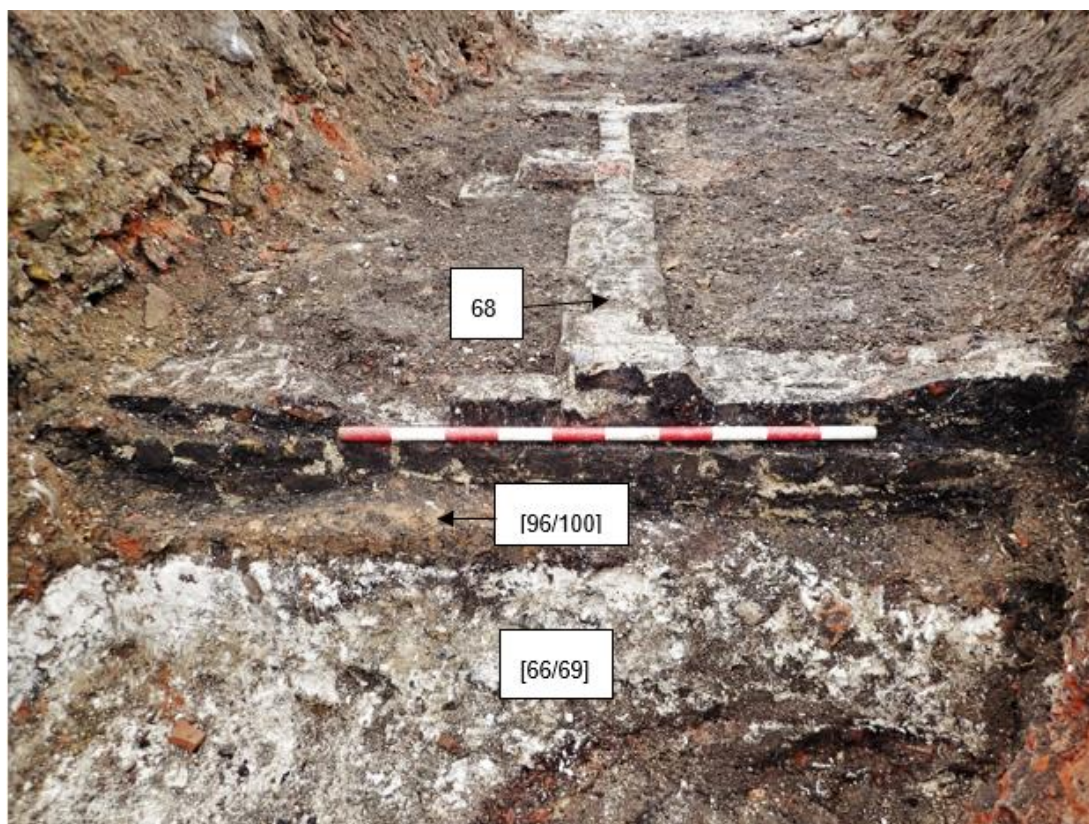


Plate 13: Trench 12, view to north-east, scale 1m. Building 2, walls [68] laid on clay [96] / [100] cut into re-deposited chalk layer [66] / [69]



Plate 14: trench 12, view to the north, scale 1m. Walls [68] to Building 2 constructed on clay layer [96/100] cut into redeposited chalk [66/69].



Plate 15: Trench 12, view to north-east, scale 1m. Interior walls [78] of Building 5, the cellar of the public house.



Plate 16, Trench 19, Building 6, view to north-west, scale 1m. Former wharf, wall [2]

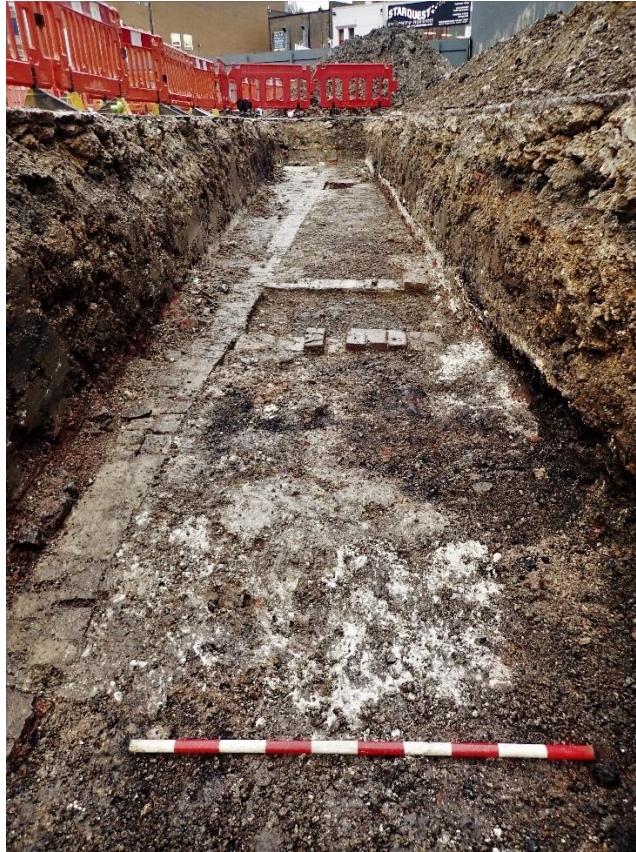


Plate 17: Trench 19, Building 6, view to south-east, scale 1m. Wharf building wall [2] with internal wall divisions [8] (foreground), [7] and [6] (background).

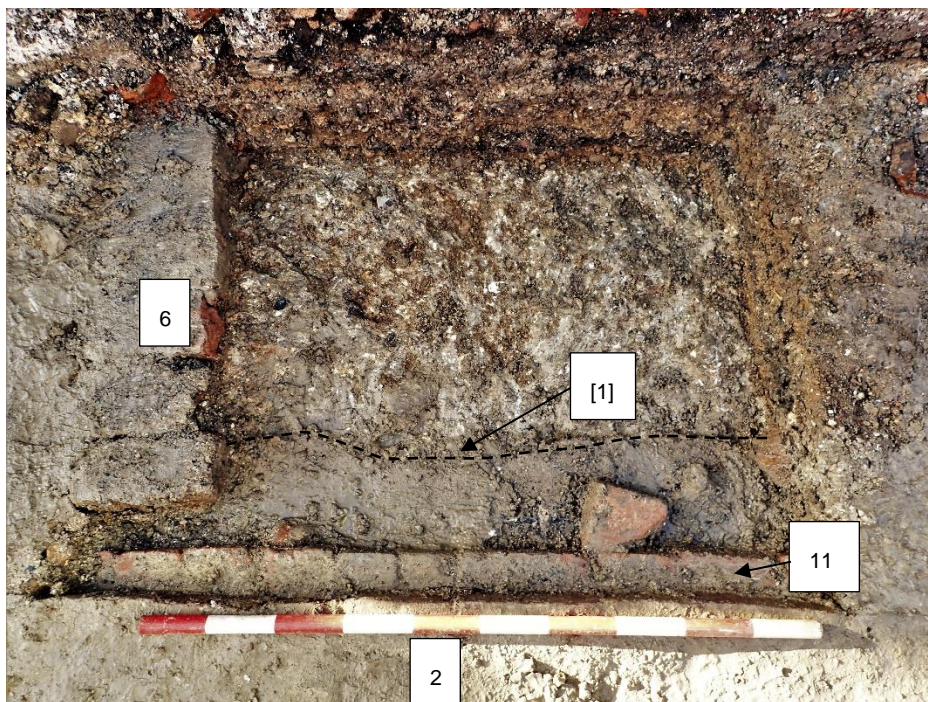


Plate 18: Trench 19, Building 6, view to north-west, scale 1m. Main wharf building wall [2] on stepped brick foundations [11], with internal dividing wall [6] laid on top of the original construction cut [1].



Plate 19: Trench 19, Building 6, view to north-west, scale 1m. Section 9 showing made ground layers and burnt layer [15] above compacted chalk floor [20].



Plate 20: Trench 20, Building 7, view to north, scale 1m. Wall [5].



Plate 21: Trench 20, view to south-west, scale 1m. Building 7, walls [5].



Plate 22: Trench 20, view to south, scale 1m. Stepped trench which revealed earlier occupation layers [58] below the chalk floor [57] of Building 7.



Plate 23: Trench 23, view to south-east, scale 1m. Rammed chalk floor [57] of Building 7 sealed earlier occupation layer [58].

8 CONCLUSIONS

- 8.1 During the Phase 1 of the evaluation, dated to c. 1750 – 1850, the earliest layer encountered was the occupation layer [28 / 29 / 31 / 41 / 42 / 43 / 58 / 93] composed of domestic refuse, garden soil and dumped made ground.
- 8.2 In Trench 1, two Pits [45] and [50] were dated to this period by the presence of clay tobacco pipe fragments dated AD 1680-1740 and early pottery sherds (Jarrett 2019). The finds from the pits and the layer itself strongly supports domestic activity during this period.
- 8.3 In Trench 5, layer [29/31] produced some early finds consisting of peg tile and clay tobacco pipe fragments that dated to the 18th century. However, as an ‘occupation’ layer it must be noted the material is likely to have been constantly mixed and turned over resulting in a number of residual objects within its matrix.
- 8.4 In Trench 12, the construction cut for the footings [71] had penetrated this lower layer and raised up earlier material into its backfill [70] illustrated in Section 30 (Figure 7, Section 30). The layer was formed at the end of the 18th and the beginning of the 19th century and is likely to relate to occupational debris generated by the buildings located to the north of the study area as depicted on the Andrews, Dury & Herbert Map of 1768-69.
- 8.5 Phase 2 (c.1850 – 1900) shows an increase in the density of building within the study area comprised of a mix of domestic buildings 2 – 6 fronting Medway Street (in Trench 12) and Wharf Building 7 belonging to Bessent’s Wharf uncovered in Trench 19. The dockyard surface (with crane slot or gully) exposed in Trench 6 is of this period as well as a number of drains, soakaways and gullies [48 / 51 / 53] to the rear of the Medway Street facing properties discovered in Trench 1.
- 8.6 In Trench 12, Building 2 was only represented by crushed brick and concrete footings [71] but was apparently linked to adjacent Building 4 whose walls had been robbed out. However, the wall construction cut was continuous between the two and on the same alignment.
- 8.7 Also, in Trench 12, the remains of Building 2 were fragmentary and truncated, but the post-Great Fire bricks (c.AD 1750 – 1900) were found to have been bonded in a clinker mortar known to be a 19th century recipe (Hayward 2019). The building had been cut into a layer of redeposited chalk [66 / 69] and set into a clay floor bed [96 / 100].
- 8.8 At the west end of Trench 12, Building 5 consisted only of the right-angle of a wall [78], probably of a cellar belonging to the Kings Arms which was known to have been located on this spot. The cellar wall had been internally plastered and whitewashed against damp and had been filled by the demolition rubble [94] of the Public House which stood above it. The licensee list for the Kings Arms commences in with Robert Wills (or Wells) who was incumbent between 1791 and 1793 (Dover-Kent Archives 2019). It was listed in Pigots’ Directory from 1840 with one Benjamin Braddy listed as the publican (PubWiki 2019). The pub survived until a fire in the 1990’s and was subsequently demolished in 2002 (Dover-Kent Archives 2019).

- 8.9 In Trench 19 the alignment of the wall belonging to Building 7 can be clearly seen on the 1898 Ordnance Survey Map labelled as Bessent's Wharf. The wall itself [2 / 11] appeared to be too superficial to be a load-bearing wall, so it is not known if it was an external or internal wall. Three further subdividing walls [6 / 7 / 8] were identified. It appears to be depicted on the Chatham Tithe Map of 1842 and is clearly marked on the OS Map of 1898.
- 8.10 All surviving features had been, to some degree, truncated and sealed by 20th century buildings associated with the construction of the Water Pumping station and later re-use as a Council car park.



Plate 24: View to north-east. Kings Arms in the 1990's following the fire © Dover-Kent Archives

9 ACKNOWLEDGEMENTS

- 9.1 Pre-Construct Archaeology Limited would like to thank Archaeology Collective for commissioning the archaeological work.
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10 BIBLIOGRAPHY

Chartered Institute for Archaeologists, 2014 *Standard and guidance for an archaeological evaluation*
CIfA 2014

Allen Archaeology, 2018, Archaeological Desk based Assessment: Chatham Waterfront, Medway
Street, Chatham, Kent. Lincoln: Allen Archaeology. Unpublished Client Report.

Historic England, 2015, *Management of Research Projects in the Historic Environment MoRPHE*

Kent County Council, 2018, *Evaluation – Trail Trenching Requirements in Manual of Specifications Part
B.*

QUEST, 2019, *Chatham Waterfront: Desk-Based Geoarchaeological Deposit Model Report &
Addendum Fieldwork Report*

Archaeology Collective, 2019, *Written Scheme of investigation: Evaluation (Trial Trenching &
Geoarchaeological Evaluation) at Chatham Waterfront, Kent.* Unpublished client report.

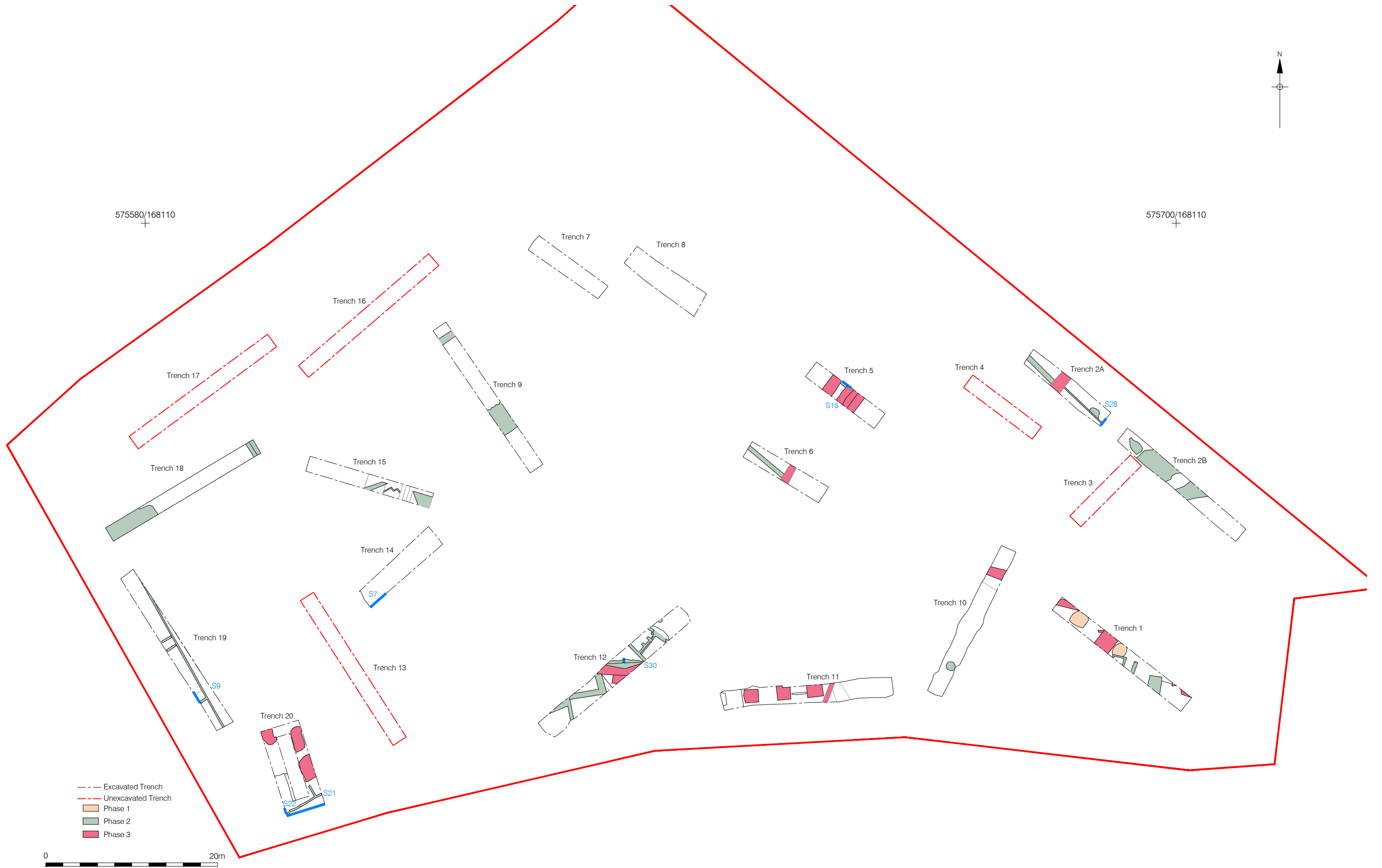
Taylor, J. with Brown, G., 2009, updated 2018, *Fieldwork Induction Manual: Operations Manual 1*, Pre-
Construct Archaeology Limited

Websites:

www.bgs.ac.uk British Geological Survey Online

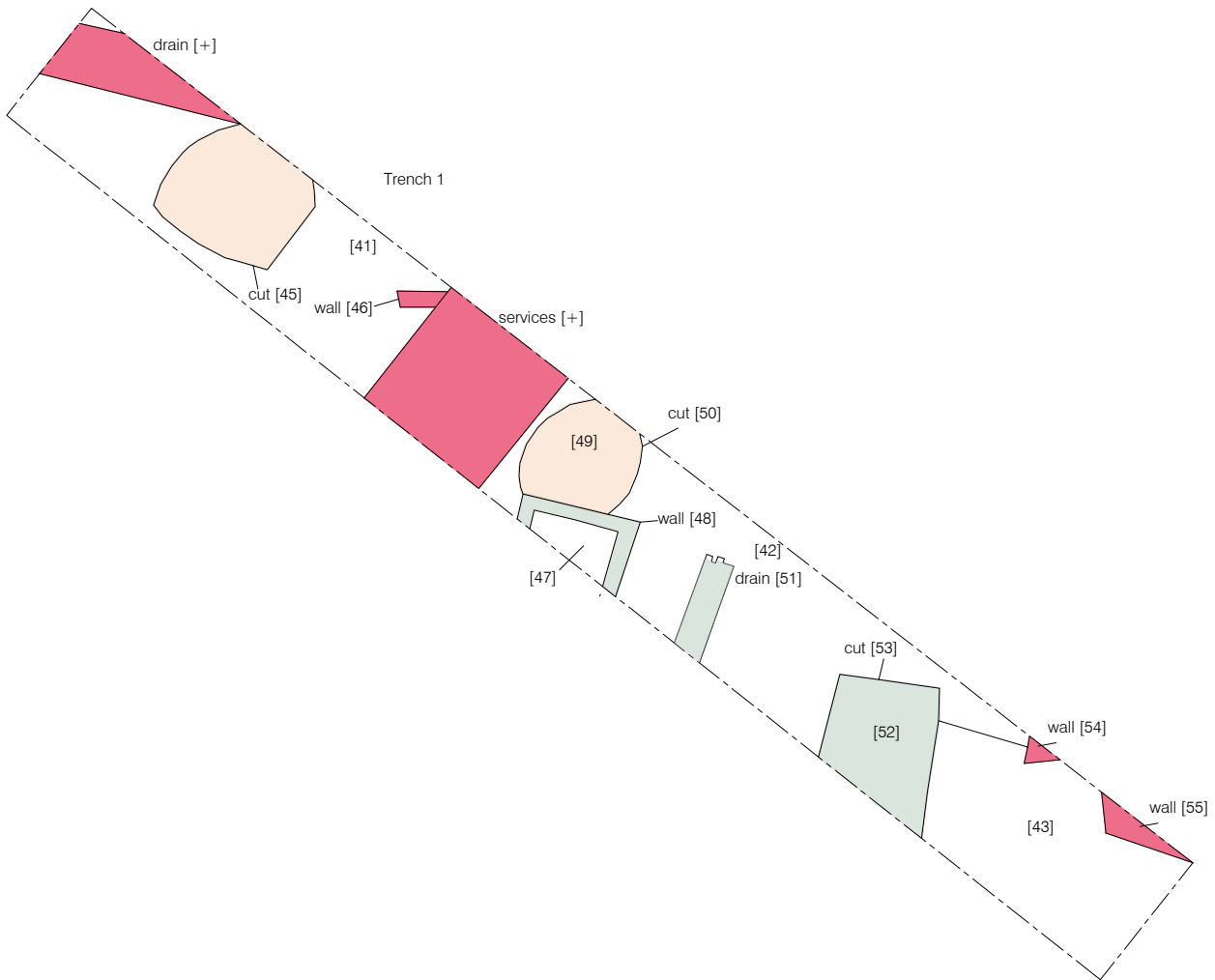
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<https://pubwiki.co.uk/KentPubs/Chatham/KingsArms.shtml> PubWiki Online





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- Phase 1
- Phase 2
- Phase 3

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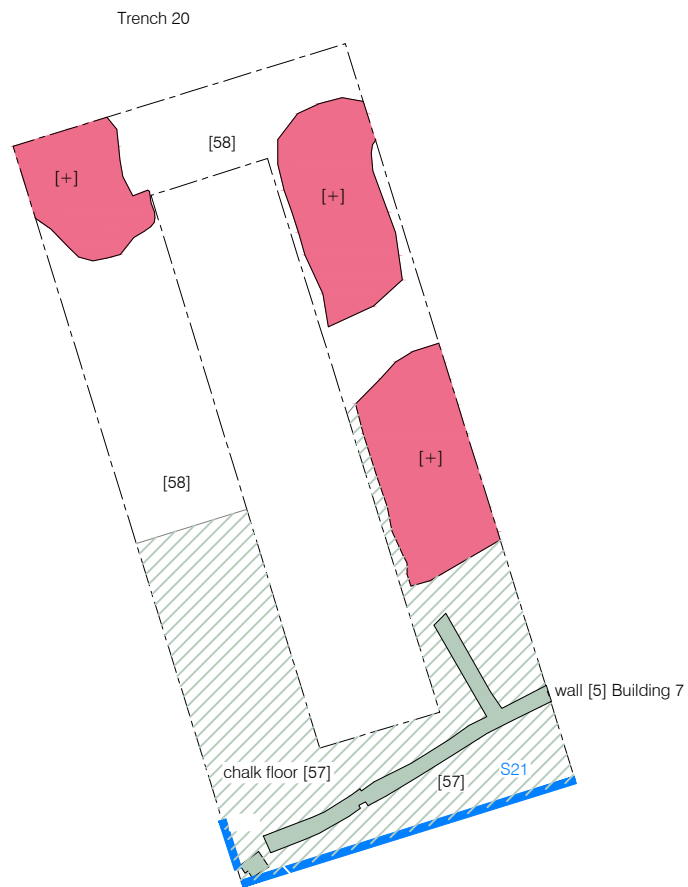
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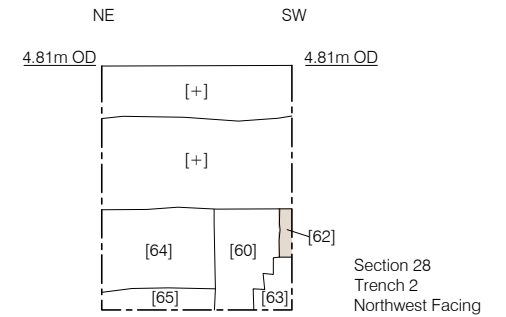
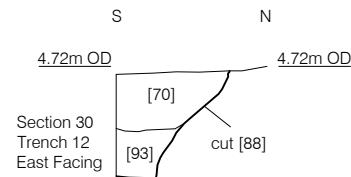
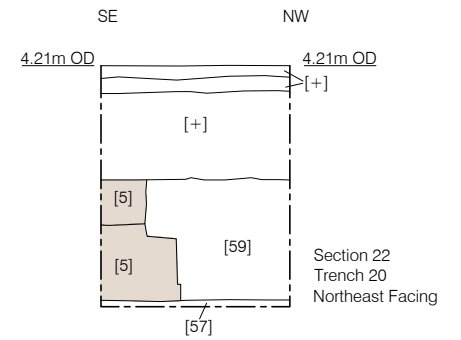
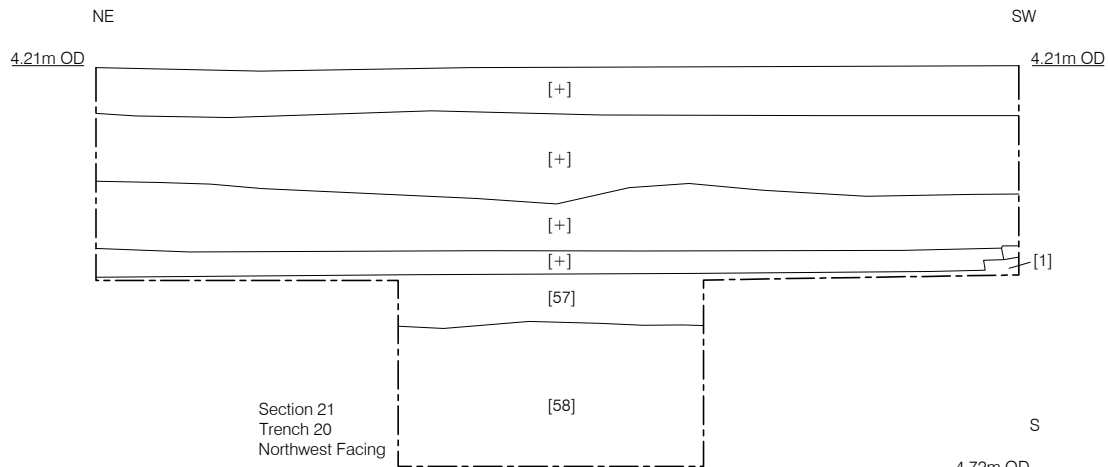
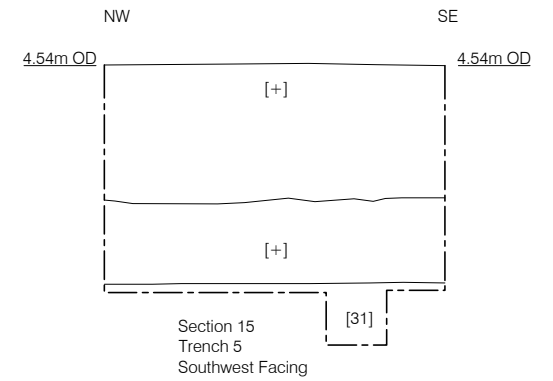
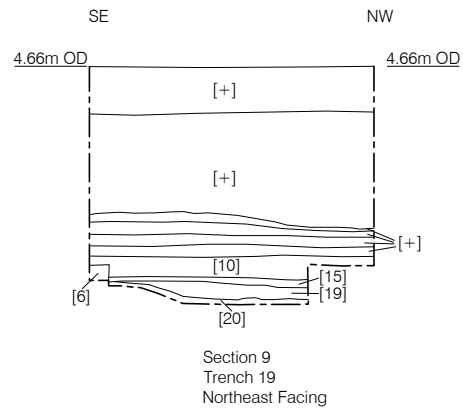
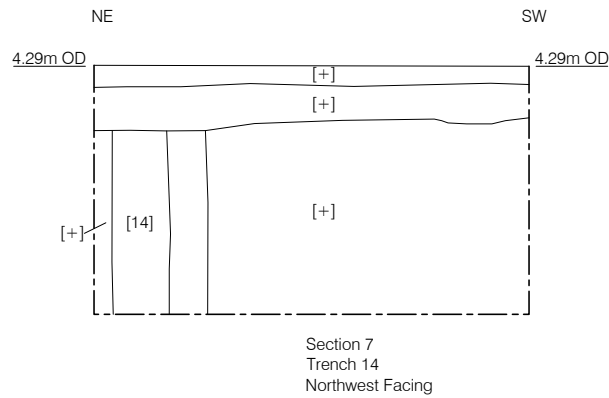


Figure 5
Plan Detail of Trench 12
1:100 at A4



 Phase 2
 Phase 3

0  5m



Wall



Figure 7
Sections
1:40 at A4

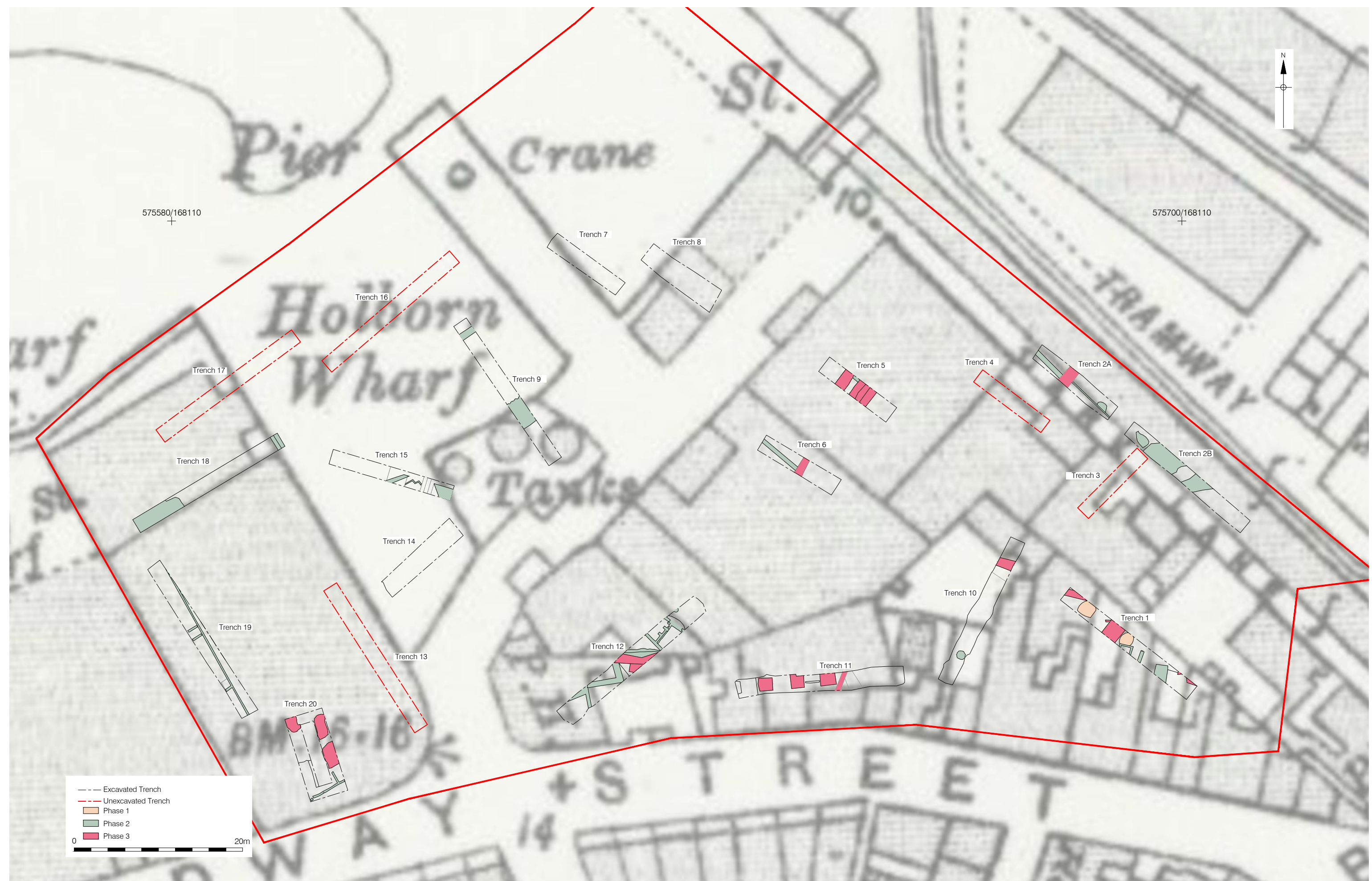
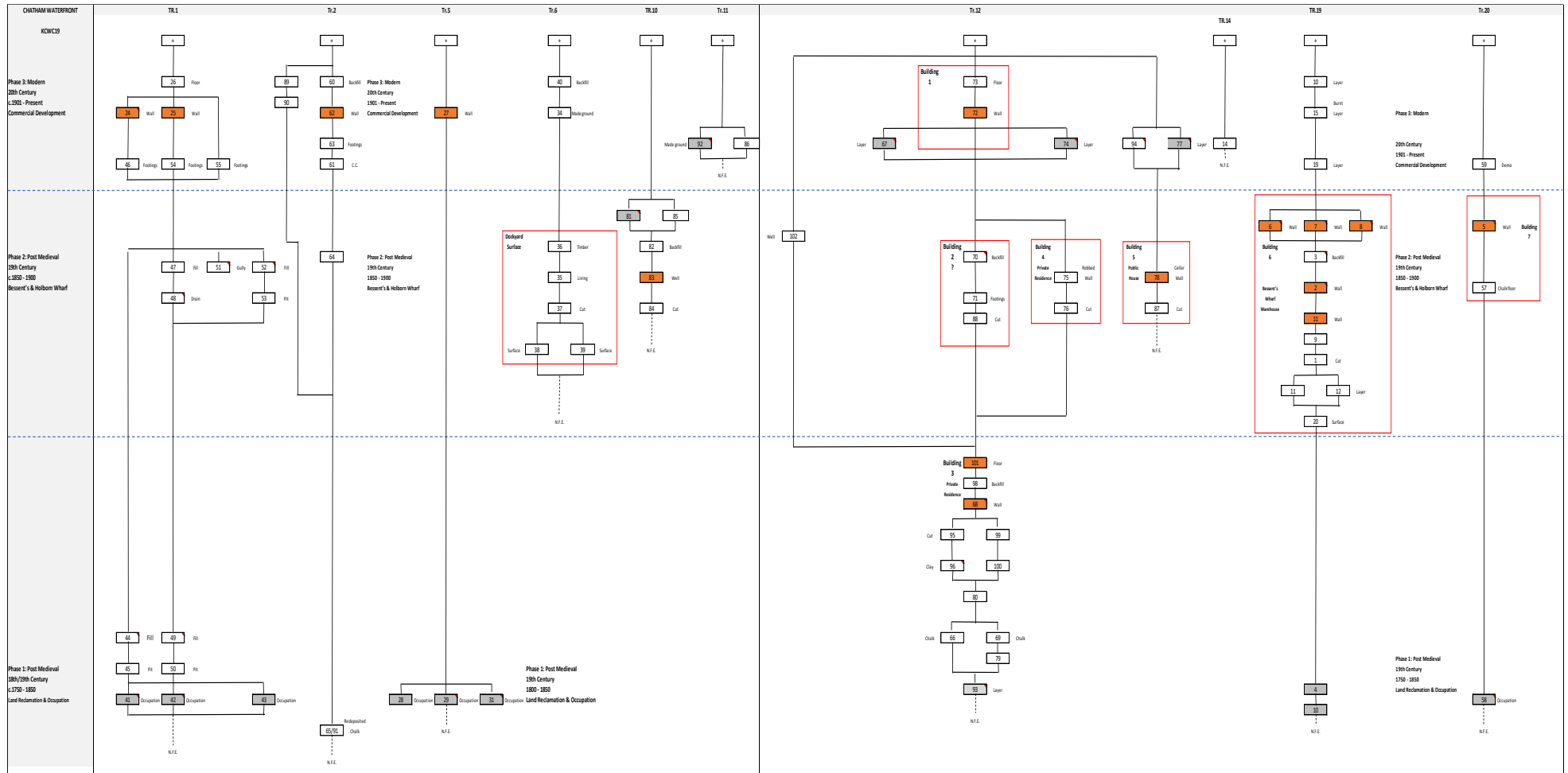


Figure 8
Trenches overlain on Ordnance Survey Map, 1935
1:400 at A3

87	Cut	12	Construction cut for cellar wall [78], Building 5	Construction Cut					3.55	3.55	KCWC19-PH2
88	Cut	12	Construction cut for footings [71] of Building 3	Construction Cut	0.15	0.2			3.51	3.51	KCWC19-PH2
89	Masonry	2	Brick-built surface only seen in section; purpose unknown	Surface	1		0.2		4.33	4.33	KCWC19-PH3
90	Layer	2	Layer of brick crush for floor surface [89]	Make-up	1		0.11		4.14	4.14	KCWC19-PH1
91	Layer	2	Layer of redeposited, degraded chalk (same as [65])	Make-up	1		0.07		3.7	3.7	KCWC19-PH1
92	Layer		Layer of made ground (same as [86])	Make-up					2.99	2.99	KCWC19-PH1
93	Fill	88	Earlier occupation layer, possibly 18th century and preceding the construction of the docks.	Backfill					3.17	3.17	KCWC19-PH1
94	Fill	78	Fill of cellar [78] composed of loose demolition material containg 20th century detritus	Backfill					3.26	3.26	KCWC19-PH3
95	Cut	12	Building 3: construction cut for wall [68]	Construction Cut					3.51	3.51	KCWC19-PH2
96	Layer	12	Rammed clay floor composed of a soft, orangey-brown clay	Make-up	2.5	0.07	0.2		3.51	3.51	KCWC19-PH2
97	Cut	12	Construction cut for a well (not excavated)	Well					3.51	3.51	KCWC19-PH2
98	Fill	68	Building 2: backfill of construction cut [95] / [99] to receive wall [68]	Backfill				0.16	3.51	3.51	KCWC19-PH2
99	Cut	12	Building 2: construction cut [95] / [99] to receive wall [68]	Construction Cut					3.51	3.51	KCWC19-PH2
100	Layer	12	Building 2: layer of rammed dark brown clay to received walls [68]. Same as [96].	Levelling					3.51	3.51	KCWC19-PH2
101	Masonry	12	Floor comprised of unmortared bricks laid flat	Floor							KCWC19-PH2
102	Cut	12	Possible construction cut for well	Well							KCWC19-PH2

APPENDIX 2: MATRIX



APPENDIX 3: CERAMIC BUILDING MATERIALS

By Kevin Hayward

Introduction and Methodology

Twenty-one examples of post medieval peg tile and brick (32949g) were collected from an evaluation brief at Chatham Dockyard. It was reviewed to determine the overall character, and to provide a list of spot dates

The application of a 1kg masons hammer and sharp chisel to each example ensured that a small fresh fabric surface was exposed. The fabric was examined at x20 magnification using a long arm stereomicroscope or hand lens (Gowlland x10).

Ceramic Building Material Fabrics and Forms

Roman

No Roman ceramic building material recovered.

Medieval 1 example 109g

A highly vitrified medieval peg tile was recovered from (31).

Post-Medieval 14 examples 31668g

All the material recovered was post medieval in date. The assemblage was dominated by post medieval brick structures.

Brick

Most of the brick is well made, sometimes frogged and nearly all bonded in a brown-grey clinker mortar with flecks of red brick, coal and white chalk (Type 1) that is a 19th century recipe. Three fabrics can be distinguished

Intermediate post great fire brick 3034nr3033 (1664-1725) 1 example 2700g

A red brick with pale yellow silty streaks comparable somewhat to Wren type bricks was recovered from [5]. It was bonded in a brown-grey clinker mortar with flecks of red brick, coal and white chalk (Type 1) that is an 19th century recipe, so evidently it has been reused.

Red sandy brick 3046 (1700-1900) 6 examples 15800g

All bonded in T1 mortar, there are a grouping of well-made unfrogged [2] [48] [81] and frogged [5] fine red sandy bricks comparable to London fabric 3046. These were manufactured out of brickearth between the 18th and 19th century. Those with the frog can definitely be assigned a 19th century date.

Red Post Great Fire Brick 3032R (1664-1900) 6 examples 12301g

All bonded in T1 mortar, there are a grouping of well-made unfrogged [6] [8] and frogged [51] [68] [81] red post great fire brick. The frogged examples date from 1825-1900, the unfrogged ones possibly from the 18th century.

Pan Tile 2279 (1730-1850) 1 example 128g

Curved, flanged pan tile used either as roofing or even drain covers were introduced into this country from the early 17th century onwards. One example was recovered from (3).

Peg tile 6 examples 688g

2276 local sandy fabric (1480-1900), CHAT1 (Yellow Gault fabric) CHAT 2 (Red sandy fabric with laminae of yellow gault clay and shell. 6 examples 688g

Three different peg tile fabrics were identified. The common London sandy fabric 2276 from (29) dates from 1600-1900. The two local Chatham fabrics incorporate yellow Gault clay from the Medway around Maidstone and may well have been supplied from tileries. Both date from 1300 and 1800 and come from (44) (96).

Distribution

Structures in bold

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
2	3046; 3101	Well made local unfrogged red brick; brown grey clinker mortar with flecks of red brick, coal, white chalk Type 1	2	1450	1900	1450	1900	1700-1900	1750-1900
3	3032; 2279	Post great fire unfrogged brick and pan tile	2	1630	1900	1664	1900	1700-1900	No mortar
5	3046; 3032nr3033; 3101	Wren type brick and two frogged local red bricks; Type 1 mortar brown grey clinker mortar with flecks of red brick, coal, white chalk	3	1450	1900	1664	1900	1800-1900	1750-1900

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
6	3032R; 3101	Unfrogged post great fire brick with traces of a darker grey mortar T2	1	1664	1900	1664	1900	1750-1900	1750-1900
7	3046; 3101	Well-made local unfrogged red brick; brown grey clinker mortar with flecks of red brick, coal, white chalk Type 1	1	1450	1900	1450	1900	1700-1900	1750-1900
8	3032R;	Post great fire brick-unfrogged; no mortar	1	1664	1900	1664	1900	1750-1900	No mortar
29	2276	Post medieval peg tile fine moulding sand	1	1480	1900	1480	1900	1600-1900	No mortar
31	2271	Burnt thin peg tile	1	1180	1800	1180	1800	1180-1600	No mortar
44	CHAT2	Local Medway peg tile	1	1300	1800	1300	1800	1300-1800	No mortar
48	3046;3101	Well-made local unfrogged red brick; brown grey clinker mortar with flecks of red brick, coal, white chalk Type 1	1	1450	1900	1450	1900	1700-1900	1750-1900
51	3032R; 3101	Well made frogged post great fire brick bonded brown grey clinker mortar with flecks of red brick, coal, white chalk Type	1	1664	1900	1664	1900	1825-1900	1750-1900

Context	Fabric	Form	Size	Date range of material		Latest dated material		Spot date	Spot date with mortar
68	3032R; 3101	Well-made frogged post great fire brick bonded brown grey clinker mortar with flecks of red brick, coal, white chalk Type1	1	1664	1900	1664	1900	1825-1900	1750-1900
81	3046; 3032R; 3101	Well-made frogged post great fire brick bonded brown grey clinker mortar with flecks of red brick, coal, white chalk Type1 red brick	1	1450	1900	1664	1900	1825-1900	1750-1900
96	CHAT 1	Yellow Gault Medway peg tile	1	1300	1800	1300	1800	1300-1800	No mortar

Significance and further work

A review of the small assemblage from Chatham Dockyard, show it be nearly all dominated by post medieval brick, pan tile and peg tile. The exception is a small fragment of burnt medieval peg tile from (31). There are numerous brick structures [2] [5] [6] [7] [8] [48] [51] [68] [81]. On the basis of mortar type, frogging and sharp arises these dates from 1750-1900. These include some reused Wren type bricks [2] and possibly unfrogged local reds [2] [7] [48] as well as frogged post great fire [51] [68] [81] and red bricks [5]. As these are bonded in the same brown-grey clinker mortar with flecks of red brick, coal and white chalk (Type 1) then an 1800 to 1900 date seems appropriate for all these structures

Other than that, there are fragments of local and non-local peg tile and pan tile

The assemblage from this evaluation provides evidence for extensive 19th century building activity in this part of Chatham Dockyard.

There are no items of intrinsic art-historical evidence. No further work required. Recommend discard.

APPENDIX 4: CLAY TOBACCO PIPE ASSESSMENT

By Chris Jarrett

Introduction

A small sized assemblage of clay tobacco pipes was recovered from the site (less than one box). The material is not abraded, is in a good condition, but fragmentary. Only a small quantity of the pipes was deemed to be residual, which indicates that the clay tobacco pipes were deposited mostly under secondary conditions. However, stratigraphic analysis of the pipes infers that much of the deposit was residual. Clay tobacco pipes occur in seven contexts as only small (under 30 fragments) sized groups. The assemblage consists of 37 fragments, of which none are unstratified.

Methodology

All the clay tobacco pipes were recorded in a database format and classified by Atkinson and Oswald's (1969) typology (AO) and 18th-century examples are according to Oswald's (1975) typology and prefixed OS. A small number of the bowls have been reclassified according to Higgins (2016). The material was catalogued according to Higgins (2017) and the pipes were coded by decoration and quantified by fragment count. The quality of finish, including the level of burnishing and the degree of milling of the rims (recorded in quarters) has been noted on 17th-century types. The tobacco pipes are discussed by their types and distribution.

The Assemblage

The clay tobacco pipe assemblage from the site consists of 10 bowls, two mouth parts and 25 stems. The clay tobacco pipe bowl types have a date range of c. 1640–1780 (see Table 1). The 17th-century bowls have similar incidences of no, a quarter and half milling on the rim. All the bowls have an average level of finish/burnishing. All of the bowls are moulded and those dated c. 1610–1710 have a bottered rim finish (made rounded and symmetrical with a circular groove on the flat face of a button-like tool), while those bowls dating from the 18th-century onwards have cut rims and indicate that they were made in a gin press. All the bowls have been smoked.

The bowl types

1640–1670

AO12: one tall bowl, with a heart-shaped heel that occurs as a more robust variant. Half milling of the rim. Context [70]

1660–1680

AO13V: one heeled bowl with a barrel-shaped profile. A quarter milling of the rim and the notches are robust. Context [70]

1680–1710

AO20: two heeled, angled, rounded profile bowls both with a quarter milling of the rim and the notches forming the milling are robust. Both bowls are initialled:

W T: two bowls both found in context [70]. A possible pipe maker for these bowls was William Tapley, working in Rochester during the period 1705–16 (Boyden 2015, 289).

AO22: Four heeled, angled, straight-sided profile bowls. Two examples have no milling of the rim (context [70]) and one bowl has half milling of the rim (context [58]). The fourth bowl is missing most of the rim (context [70]).

1730–1780

OS12: two heeled, upright bowls with a straight back and rounded front and thin stems. Both bowls are initialled on the sides of the heel:

??: one bowl missing most of the rim. The underside of the heel is cut at a relatively steep angle. The possible initials on the sides of the heel are faint and illegible. Context [29]

I?: one bowl and most of the rim is missing. The family initial is smudged and possibly represents either a M or a N. Context [58]

The mouthparts

The two mouth parts recorded in the assemblage are of different dates. The earliest mouth part was found in context [93] and probably dates to the 17th century. The tip of this item was cut almost flat with the edges rounded off, while the stem is of a medium thickness and has a medium sized bore. The latest mouth part has a thin stem and a fine bore, and the tip was bevelled and dates to after c. 1730 (context [29]).

The stems

The stems were only broadly dated according to their thickness and more importantly the size of the bore.

Distribution

Table 1 shows the distribution of the clay tobacco pipes and for each context these finds occur in is shown the trench location, the phasing, the number of fragments, the date range of the latest bowl type (context ED and LD), the types of bowls present, together with a spot date for each context. Clay tobacco pipes were found in Phase 1–3 dated deposits.

Context	Trench	Phase	No. Frags	Context ED	Context LD	Bowl form (makers etc.)	Spot date
---------	--------	-------	-----------	------------	------------	-------------------------	-----------

29	5	1	2	1730	1780	X1 bowl: OS12 (? ?), x1 mouthpart	C. 1730–1780
41	1	1	2	1580	1910	Stems	18th century
42	1	1	2	1580	1910	Stems	C. 1730–1910
58	20	1	5	1730	1780	X2 bowls: x1 AO22, x1 OS12 (I ?), x3 stems	1730–1780
70	12	2	20	1680	1710	X7 bowls: x1 AO12, x1 AO13V, x2 AO20 (W T), x3 AO22, x13 stems	1680–1710
81	10	3	3	1580	1910	Stems	C. 1730–1910
93	12	1	3	1580	1910	Stems	C. 1680–1740

Table 1. Distribution of clay tobacco pipes.

Phase 1

Number of fragments: 14 (three bowls, 1 mouthpart, 9 stems)

Number of contexts containing clay tobacco pipes: five

Most of the clay tobacco pipes in the assemblage was recovered from this phase. Only stems of an 18th century or later date were found in the occupation deposits [41] and [42], while two stems and a mouthpiece, probably deposited during the period c. 1680–1740, were noted in deposit [93]. The latest bowl type recorded in the assemblage are two 1730–1780 dates OS12 bowls, one of which was recorded in context [29] with illegible initials and the second was found in deposit [58] and initialled I ? on the heel.

Phase 2

Number of fragments: 20 (seven bowls, 13 stems)

Number of contexts containing clay tobacco pipes: one

All the clay tobacco pipes in this phase was found in a single context: backfill [70] of cut [88] for masonry footings [71]. The seven bowls consist of two residual mid-17th-century shapes (single AO12 and AO13V shapes), while the latest bowl types date to the period 1680–1710 and consist of two AO20 bowls and three AO22 examples.

Phase 2

Number of fragments: three (stems)

Number of contexts containing clay tobacco pipes: one

Only stems of a c. 1680–1740 date was recorded in this phase and these occurred solely in deposit [81].

Significance

The clay tobacco pipe assemblage has little significance as it is a small collection of largely redeposited finds.

Potential

The clay tobacco pipes have the potential to date the contexts in which they were found. There are no recommendations for further work on the finds.

Bibliography

- Atkinson, D. and Oswald, A., 1969, 'London clay tobacco pipes'. *Journal of British Archaeology Association*, 3rd series, Vol. 32, 171-227.
- Boyden, B.W. J. 2015. Structure and Agency in Small-Scale Production: An Historical Archaeology of the Clay Tobacco Pipemakers Of Kent. PhD University of Liverpool.
- Higgins, D., 2004, 'The clay tobacco pipes', in G. Keevill, *The Tower of London Moat; archaeological excavations 1995–9*, Oxford Archaeology/Historic Royal Palaces Monograph 1, 241–57.
- Higgins, D. 2016, Pipes and Stoppers from the 1665 wreck of *The London*. Paper given at the 2016 Society for Clay Pipe Research Conference, 24th September 2016, Wrest Park, Bedfordshire.
- Higgins, D. 2017, Guidelines for the Recovery and Processing of Clay Tobacco Pipes from Archaeological Projects. Unpublished document.
- Oswald, A., 1975 *Clay pipes for the Archaeologist*, British Archaeological Reports, British series, No.14.

APPENDIX 5: POTTERY ASSESSMENT

By Chris Jarrett

Introduction

The pottery assemblage consists of 75 sherds, representing 65 estimated number of vessels (ENV) and weighing 2.547kg, of which none was unstratified. The pottery dates only to the post-medieval period. The condition of the pottery is good and comprises both sherd material (with diagnostic parts represented), two vessels with a complete profile and an intact item. It was most likely that the assemblage was deposited under secondary conditions. The material was collected solely by hand and was recovered from 16 contexts as only small (30 sherds or less) sized groups. The pottery is discussed by its types (The Assemblage) and distribution.

Methodology

Pottery was quantified by sherd count, estimated number of vessels (ENV) and weight. The coding of the pottery types is according to that system employed by the Canterbury Archaeological Trust (CAT) (e.g. Cotter 2006).

The Assemblage

The range of pottery types and the forms present in the assemblage are shown in Table 1. The main type of pottery recorded in the assemblage are Staffordshire "Ironstone" - type white earthenware, which includes transfer-printed decorated wares, the latter often with mid or late 19th-century designs. The forms recorded in this ware are mostly either table or drinking wares, although a fragment of a water closet has a late 19th-early 20th-century purple geometrical design (context [74]). A small quantity of other Staffordshire-type factory wares also occurs, including bone china (LPM7B), creamware (LPM11) and yellow ware (LPM5). The latest item in the assemblage is an intact saucer made in a high-fired dark brown stoneware (LPM100) with an internal white slip coating and a dark brown slip line located at the top of the wall. On the underside of the base of the vessel is a white transfer-printed circular mark with around the edge the legend 'OVEN TO TABLEWARE HORNSEA ENGLAND' around 'DISHWASHER FREEZER AND MICROWAVE OVEN SAFE'. At the centre of the mark is a flourish above 'CHARISMA'. The Hornsea Pottery was established in 1949 in the coastal town of Hornsea in the East Riding of Yorkshire, England and operated until April 2000, while the mention of 'microwave safe' indicates that the vessel dates from c. 1980. The saucer was found in context [94].

Pottery type	Code	Date	SC	ENV	Wt	Forms
Post-medieval red earthenwares	PM1	1550 – 1800.	11	8	408	Bowl, flowerpot, jar, pipkin, unidentified
English tin - glazed earthenware.	PM9	1575 – 1775.	12	10	276	Bowl, charger, dish, plate, straight-sided jar, unidentified

Pottery type	Code	Date	SC	ENV	Wt	Forms
English tin - glazed earthenware: blue - tinted (plain)	PM9BT	1675 – 1770.	1	1	6	Saucer
English tin - glazed earthenware: blue - tinted and painted	PM9TB	1675 – 1770.	1	1	9	Plate
English tin - glazed earthenware: plain white	PM9W	1575 – 1775.	2	2	33	Bowl, ointment pot
Staffordshire-type slipware	PM21	1650 – 1775/1800	1	1	26	Dish
London stoneware: bi-toned with an iron slip	PM25	1675 – 1825.	1	1	10	Jar
Staffordshire - type white stoneware	PM26	1725 – 1780.	1	1	21	Rounded colander
Nottingham/Derby stoneware	PM38	1670 – 1770.	2	1	37	Small dish
Chinese Porcelain: underglaze blue - painted	PM40A	1725 – 1775/1800.	2	1	6	Saucer
Misc. Unidentified ?French ware	PM101	1500 – 1900.	1	1	19	Jar
Misc. Unidentified: ?German	PM103	1500 – 1900.	1	1	87	Jug
Other late PM1/LPM1 - types	LPM1B	c. 1775+.	1	1	98	Jar
Fine red earthenware.	LPM2	1825 – 1900+.	1	1	55	Flowerpot
North east English (Tyneside) slip - decorated redware	LPM4	1775 – 1925.	3	3	77	Bowls, including rounded shapes
Yellow Ware	LPM5	1825/50 – 1900.	5	4	337	Bowl, unidentified
Bone China	LPM7B	1770 – 1925+.	1	1	9	Saucer
Modern English stoneware	LPM10	1800 – 1940.	2	2	40	unidentified
Modern English stoneware: Blacking bottles, ginger beer bottles inkwells etc	LPM10A	1800 – 1940.	4	3	212	Black-leading bottle, Bottle or jar, ginger beer bottle
Later Creamware ('Queensware')	LPM11	1775 – 1825.	2	2	17	Medium rounded bowl, unidentified
Staffordshire "Ironstone" - type white earthenware, including transfer-printed wares	LPM14	1825 – 1850/75.	19	18	517	Medium rounded bowl, cylindrical mug, dish, Plates, including dinner and large sizes, teacup, unidentified, water closet
Misc. Unidentified: English	LPM100	1500 – 1900.	1	1	247	Saucer

Table 1. Pottery types quantified by sherd count (SC), estimated number of vessels (ENV) and weight (Wt)

The second largest class of pottery recorded in the assemblage consists of English tin-glazed wares (16 sherds/14 ENV/324g), which mostly date to the 18th century. The earliest tin-glazed ware is a mid-17th century polychrome charger found in deposit [70].

Amongst the English stonewares are Bristol-glazed (LPM10A) ginger beer bottle rims of a late 19th-century date (context [81]), one of which has an internal thread and dates more so to the early 20th century (context [92]).

Imported pottery is poorly represented in the assemblage (two sherds/2 ENV/106g) and consists of a green-glazed jar with a deep bevelled collared rim made in a coarse French whiteware (PM101): and a German stoneware (PM103) jug base. Both items were found in context [70].

Distribution

The distribution of the pottery is shown in Table 2 and was recovered from Phases 1–3 and demonstrates for each context the trench it occurs in, the size of the assemblage, the quantification by sherd count, ENV, weight, the date range of the latest pottery type (Context ED and LD), the pottery types and forms and a spot date. The distribution of the pottery is discussed by phase.

Context	Trench	Phase	SC	ENV	Wt	Context ED	Context LD	Pottery types (forms)	Spot date
24	1	3	3	2	312	1820	1900	PM40A (saucer)	1820–1900
29	1	1	2	1	6	1580	1900	LPM5 (bowl), LPM14 (unidentified)	18th century
31	5	1	1	1	14	1830	1900	LPM14 (medium rounded bowl)	1830–1900
41	1	3	6	5	100	1830	1900	PM9BT (saucer), PM38 (small dish), LPM14 (cylindrical mug, plate), PM26 (rounded colander), LPM4 (bowl)	1830–1900
42	1	3	14	13	116	1830	1900	PM9W (bowl), PM38 (small dish), LPM4 (bowl), LPM5 (unidentified), LPM10 (black-leading bottle), LPM11 (medium rounded bowl, unidentified), LPM14 (dish, plate, teacup),	1830–1900
49	1	3	7	5	103	1820	1900	PM1 (bowl, flowerpot), LPM5 (bowl), LPM14 (plate, unidentified)	1820–1900
52	1	2	1	1	33	1780	1900	LPM14 (dinner plate)	Mid-19th century
58	20	1	4	3	284	1650	1775/1800	PM1 (jar, pipkin)	1660–1800
67	12	3	2	2	2	1780	1900	PM9 (bowl), PM21 (dish), LPM14 (saucer)	Early 19th century

70	12	2	16	14	544	1680	1800	PM1 (unidentified), PM9 (charger, dish, plate, straight-sided jar, plate, unidentified), PM9TB (plate), PM9W (ointment pot), PM101 (jar), PM103 (jug), LPM1B (jar)	1680–1800
74	12	3	1	1	175	1825	1900+	LPM14 (water closet)	Late 19th - early 20th century
75	12	2	4	4	349	1830	1900+	LPM10 (unidentified), LPM10A (bottle or jar), LPM14 (large plate, water closet)	Late 19th - early 20th century
81	10	3	7	7	149	1830	1900+	PM1 (unidentified), PM9 (plate), LPM2 (flowerpot), LPM4 (rounded bowl), LPM10A (ginger beer bottle), LPM14 (plate)	19th century
92	11	1	5	4	95	1830	1900+	PM25 (jar), LPM7B (saucer), LPM10A (ginger beer bottle), LPM14 (plate)	Late 19th - early 20th century
93	12	1	1	1	18	1580	1900	PM1 (unidentified)	1580–1900
94	12	3	1	1	247	1900	2000	LPM100 (saucer)	C. 1980+

Table 2. Distribution of the pottery quantified by sherd count, estimated number of vessels (ENV) and weight (Wt).

Phase 1

Quantity: 36 sherds, 30 ENV, 947g

Number of contexts containing pottery: seven

The earliest group of pottery in this phase was recovered from the occupation deposit [58] (Trench 20), which produced sherds of post-medieval redware (PM1) besides the latest datable pottery type Staffordshire-type slipware (PM21), dated c. 1650–1800. All other deposits (occupation deposits [29], [31], [41] and [48]) in this phase only produced groups of pottery dated to the mid-late 19th century.

Phase 2

Quantity: 21 sherds, 19 ENV, 926g

Number of contexts containing pottery: three

The backfill [70] of the construction cut [88] for footings [71] produced a group of pottery dated c. 1680–1700, most of which consisted of tin-glazed wares (PM9) decorated in various styles. Fill [52] of pit [53] produced only a sherd of a transfer-printed ware (LPM14) plate with a mid-19th-century dated design, while pottery of the same type was recovered from fill [75] of the robber cut [76], although one design present dates to the late 19th-early 20th century.

Phase 3

Quantity: 18 sherds, 16 ENV, 674g

Number of contexts containing pottery: six

A variety of deposits in this phase produced pottery with wide date ranges. Fragments of an 18th-century Chinese porcelain (PM40A) saucer was associated with wall [24], while early 19th-century pottery was recovered from deposit [67]. Deposit [81] produced pottery that could only be broadly dated to the 19th century. Late 19th-early 20th century dated pottery was noted in deposits [74] and [92], the latter containing a stoneware ginger beer bottle with an internal threaded rim. The Charisma design saucer made by the Hornsea Pottery dated c. 1980–2000 was found in context [94].

Significance, potential and recommendations for further work

The pottery is of no significance as it occurs as small, fragmentary material without much meaning. The only potential of the pottery is to date the contexts it was recovered from. There are no recommendations for further work on the material, which can be discarded as it is fully catalogued.

Reference

Cotter, J, 2006. The pottery. In K. Parfitt, B. Corke & J. Cotter *Townwall Street, Dover Excavations 1996*. The archaeology of Canterbury New Series Volume III. Canterbury Archaeological Trust. 121-254.

APPENDIX 6: ANIMAL BONE ASSESSMENT

By Kevin Rielly

Introduction

20 strip trenches were excavated within an area due for development located to the north of Medway Street and alongside the Medway River. These provided evidence for post-medieval activity dating from the 18th through to the present day. The earliest activity consisted of 18th/19th century land reclamation and occupation, followed by later 19th century warehousing along Besent's Wharf and Holborn Wharf, culminating with the current Water Pumping Station and car park. A few bones were hand recovered from a selection of the trenches, all situated within the eastern half of the site.

Methodology

The bone was recorded to species/taxonomic category where possible and to size class in the case of unidentifiable bones such as ribs, fragments of longbone shaft and the majority of vertebra fragments. Recording follows the established techniques whereby details of the element, species, bone portion, state of fusion, wear of the dentition, anatomical measurements and taphonomic including natural and anthropogenic modifications to the bone were registered.

Description of faunal assemblage

The excavations provided a total of 30 bones, all hand collected from just 5 out of the 20 strip trenches, the 7 deposits with bones dating to two of the principal phases i.e. Phase 1 – 18/19th century reclamation and Phase 2 – 19th century warehousing (see Table 1). The former where all recovered from layers while the later material mainly derived from the fill (70) of a construction cut, the remainder taken from pit fill (52). Both phases provided well preserved collections with no more than a moderate level of fragmentation.

Phase 1

While certainly low in the stratigraphic sequence, there is a general 19th century date for most of these deposits, except for (93) which provided some 17/18th century clay tobacco pipes alongside some more generally dated pottery. The bones include a wide range of cattle and sheep/goat skeletal parts as well as, from layer (29), a single pig femur. There are also a few cattle- and sheep-size pieces, the latter principally composed of ribs. A notable absence of saw marks, in contrast to the next phase (see below) may help to reinforce the potentially early date, the incidence of this attribute generally dating from the late 18th into the 19th centuries (see Albarella 2003, 73).

Phase 2

The stratigraphic and dating evidence are again called into question, whereby the principal bone bearing feature, the fill (70) of a late construction cut, provided pottery and clay tobacco pipes dating to the 17th/18th centuries. Again, there is no evidence for either larger animals or saw marks. However, the single pig bone (a femur) from pit fill (52) has been sawn, while the fill provided a good 19th century date. There is again a mix of parts amongst the identifiable phase 2 collections, these accompanied by a notable proportion of cattle-size ribs, the majority of which had been chopped through, no doubt producing rib joints or else stew bones. One of the cattle bones from (70) is a complete cattle metacarpus, this from a relatively young individual, probably representing the remains of a veal calf.

Conclusion and recommendations for further work

The site provided only a small collection, but this was generally well preserved. There may be a degree of redeposition, as highlighted by the dating evidence, most especially within the latest collection from phase 2 i.e. the construction fill (70). Though slight, the butchery evidence does appear to follow the proposed phasing, with sawn items restricted to the clearly 19th century levels. Each of the phase collections provided a range of major domesticated bones and several of these are ageable and/or measurable and there is also a wealth of butchery evidence (the latter undoubtedly associated with the noted good preservation).

Further excavation will undoubtedly provide further quantities of animal bones, particularly if located within the eastern part of the study area, however, it is unlikely that such work will provide more than a moderately sized assemblage (a few hundred fragments perhaps). The condition of the bones suggests that sampling will be worthwhile, this to gain access to the smaller food species, as birds and fish.

References

Albarella, U. 2003. Tawyers, tanners, horn trade and the mystery of the missing goat, in Murphy, P. and Wiltshire, E.J. 2003. *The Environmental Archaeology of Industry*. Symposia of the Association for Environmental Archaeology No.20, Oxbow Books, 71-86

Phase:	1						2			Total
Trench:	5	1	10	11	11		1	12		
Context:	29	42	81	92	93	All	52	70	All	
Feature type										
Const								16	16	16
Layer	4	1	4	1	3	13				13
Pitfill							1		1	1
Grand Total	4	1	4	1	3	13	1	16	17	30

Table 1. Distribution of hand collected bones by Phase, trench, context and feature type

Phase:	1						2		
Context:	29	42	81	92	93	All	52	70	All
Species									
Cattle	1		2		2	5		3	3
Cattle-size	1					1		9	9
Sheep/Goat		1	1	1		3		3	3
Sheep-size	1		1		1	3		1	1
Pig	1					1	1		1
Grand Total	4	1	4	1	3	13	1	16	17

Table 2. Distribution of hand collected bones by Phase, context and species.

APPENDIX 7: GLASS ASSESSMENT

By Chris Jarrett

Introduction

A small sized assemblage of glass was recovered from the site (less than one box) and all the material was collected by hand. The glass dates entirely to the post-medieval period and consists of mostly wine bottles. The fragments show no evidence for abrasion. The assemblage consists of mostly fragmentary items, except for one intact bottle that mostly appear to have been discarded soon after it was broken. The glass was recovered from nine contexts as only small sized (fewer than 30 fragments) groups.

The assemblage consists of 17 fragments, representing 14 ENV or items and weighing 1.114kg, of which none are unstratified. The assemblage is discussed by its types and distribution.

Methodology

The assemblage was quantified by fragment count, estimated number of vessels (ENV) and weight and were examined and reported in accordance with ClfA guidelines (2014). The information was recorded in a database format and it is discussed by form and distribution.

The assemblage

The range of forms and their quantification is shown in Table 1.

Form	No. of fragments	ENV	Weight
Bottle, generic fragment	1	1	30
Bottle, Codd-type	1	1	34
Bottle, cylindrical	4	4	132
Bottle, soda	1	1	171
English wine bottle	1	1	60
English wine bottle, cylindrical	1	1	20
English wine bottle, cylindrical late type	4	3	476
Windowpane	4	2	191

Table 1. Glass forms quantified by sherd count, estimated number of vessels (ENV) and weight

A thick-walled body sherd of a moulded generic bottle fragment made in blue-green glass, possibly derived from a 19th-century Hamilton-type bottle, was recorded in deposit [42]. There are four fragments of moulded cylindrical section bottles recorded that post date c. 1820 and were found in contexts [29] (pale green), [42] (clear and pale olive-green examples) and [92] (blue green in colour). The neck chamber of a Codd-type bottle made in blue-green glass and dated c. 1870–1950 was found in context [92]. An intact (155mm tall) moulded, soda/soft drink champagne-shape bottle with a crown cap rim finish and made in clear glass is dated to the late 20th century and was noted in deposit [94] and represents the latest item in the assemblage.

Wine bottles are recorded as a total of six fragments, 7 ENV, 556g. The earliest example consists of the shoulder and body fragment of a pale olive-green vessel derived from either shaft and globe or onion types broadly dated c. 1640–1730 and was found in deposit [70]. The remainder of the wine bottles are derived from cylindrical types which date to after c. 1740. A wall fragment made in pale olive-green glass was noted in deposit [41]. The rest of the wine bottle fragments are made in dark olive-green/black glass and consist of a cigar-shaped neck sherd (context [52]) and two bases with conical kicks (deposits [42] and [49]).

The windowpane fragments are all made in thin-walled iridescent clear glass, date to the 19th or 20th century and were only found in two contexts: [29] and [44].

Distribution

The distribution of the glass is shown in Table 1, which shows for each context containing glass, the cut it fills, the trench it is located in, the size of the assemblage, what phase it occurs in, the quantification by fragment count, ENV and weight in grams (Wt), the forms present and a suggested deposition date (spot date). The glass was recovered from Phases 1–3.

Context	Trench	Phase	No. frags	ENV	Wt	Forms	Spot date
29	5	1	4	2	42	Bottle, cylindrical, windowpane	c. 1820–1900
41	1	1	1	1	20	English wine bottle, cylindrical	?18th century
42	1	1	5	4	290	Bottle, bottle, cylindrical, English wine bottle, cylindrical late type	c. 1810–1900

44	1	1	1	1	184	Windowpane	? 19th century
49	1	1	1	1	279	English wine bottle, cylindrical late type	c. 1810–1900
52	1	2	1	1	13	English wine bottle, cylindrical late type	18th - 19th century
70	12	2	1	1	60	English wine bottle	c. 1640–1730
92	11	3	2	2	55	Bottle, Codd-type, bottle, cylindrical	c. 1870–1950
94	12	3	1	1	171	Bottle, soda	20th century

Table 1. Distribution of the glass

Phase 1

Quantity: 12 fragments, 9 ENV, 815g

Number of contexts containing glass: five

The largest quantity of glass in the assemblage was recovered from contexts assigned to this phase. Most of the glass was recovered from occupation deposits: [29] (Trench 1), [41] and [42] (Trench 1), which often produced post c. 1810 dated moulded cylindrical bottles including wine bottles. The latter was the only find recorded in fill [49], pit [50] (Trench 1).

Phase 2

Quantity: two fragments, 2 ENV, 73g

Number of contexts containing glass: two

Only fragments of wine bottles were recovered from contexts assigned to this phase. A body sherd of a shaft and globe or onion-type bottle, dated c. 1640–1730 was found in the backfill [70] of cut [88] for the masonry footings [71] (Trench 12). The neck of a cylindrical late-type wine bottle of an 18th - 19th century date was solely found in fill [52], pit [53] (Trench 1).

Phase 3

Quantity: 3 fragments, 3 ENV, 226g

Number of contexts containing glass: one

The made ground layer [92] produced only fragments of late 19th-early 20th-century dated bottles, including the neck chamber of a post c. 1870 Codd-type bottle. The 20th-century clear glass soda/soft drink bottle was found in the demolition deposit [94].

Significance

The glass has no significance at a local level as the assemblage consists of frequently excavated post-medieval forms and occurs in such a small, fragmentary quantity that the material has little meaning.

Potential

The main potential of the glass is to date the contexts it was recovered from. There are no recommendations for further work on the glass, which as it has been fully catalogued, can be discarded at the archive stage of the project.

Bibliography

ClfA 2014, *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials*. Unpublished document https://www.archaeologists.net/sites/default/files/ClfAS&GFinds_1.pdf. [Accessed 17th September 2019].

APPENDIX 8: METAL & SMALL FINDS ASSESSMENT

By Märit Gaimster

Eight metal and small finds were recovered from the excavations; they are listed in the catalogue below. They will be further described here by phase.

Phase 1: 1800–1850

Four finds came from this phase. They include a bone cutlery handle for a pin- or tang-hafted implement (SF 3), recovered from Trench 5. Simple bone handles from excavations are less frequently reported on for this period, but the handle may be compared with several recovered from Oyster Street in Portsmouth, in contexts dating from the mid-18th through to the early 19th centuries. Several of these have pins or tangs that would have been clenched or fixed through a plug at the open end of the handle (Fox and Barton 1986, 240 and fig. 153: 2–6 and 8–9). Trench 1 produced a copper-alloy teardrop handle from a chest of drawers (SF 4). Besides a heavily corroded iron nail, there was also a rubber fitting from this trench that is likely an intrusive car tow bar protection cap. A further iron nail was recovered from Trench 10.

Phase 2: 1850–1900

The single find from a Phase 2 context is a near-complete iron nail from Trench 12. Here it was retrieved from the backfill of Cut [88] in Building 2. This is a machine-cut floor nail which will date from the 1830s onwards (Bodey 2008, 2124; Nelson 1968, 209 top right).

Unphased finds

Two finds are from unphased contexts. They include a heavily corroded liver/blazer button of copper alloy (SF 1) from Layer [30] in Trench 12. Without further investigation it is not possible to describe the button closer, but it is almost certainly of a 19th-century date. An unstratified delicate double-sided comb of ivory (SF 2) may also date from this period. Small rectangular ivory combs like these, not unlike modern headlice combs, were in frequent use from the 17th century alongside examples made from bone and wood (Margeson 1993, 66; cf. Fox and Barton 1986, fig. 153: 13)

Significance and recommendations for further work

The small assemblage of metal and small finds from Medway Street, beyond reflecting the presence of households and buildings in the 19th century, have little significance for a further understanding of the

site. The finds are nevertheless of some importance as evidence of everyday domestic material culture is still frequently neglected in publications of the later post-medieval and modern periods. No further work is recommended for the finds at this stage; however, any further publication of the site should include relevant items. For this purpose, it is recommended that the copper-alloy button and drop handle are x-rayed for full identification. The iron nails and rubber fitting may be discarded.

References

- Bodey, H. 2008. *Nailmaking*, Shire Album 87, Fareham Reach: Shire Publications Ltd.
- Crewe, V. 2012. "Ancient luxury and modern filth": new insights into 19th-century life at Sheffield Manor Lodge', *Post-Medieval Archaeology* **46/2**, 333–41.
- Fox, R. and Barton, K. J. 1986. 'Excavations at Oyster Street, Portsmouth, Hampshire 1968–71', *Post-Medieval Archaeology* **20**, 31–255.
- Licence, T. 2015. *What the Victorians Threw Away*, Oxford: Oxbow Books.
- Margeson, S. 1993. *The Medieval and Post-Medieval Finds from Norwich Survey Excavations*, East Anglian Archaeology **58**.
- Nelson, L. H. 1968. 'Nail Chronology as an aid in dating old buildings', *History News* **23**, 203–214.

Catalogue of finds

Unphased					
context	Trench	SF	description	pot date	recommendations
+	n/a	2	Ivory comb; incomplete delicate single-piece with remains of closely spaced teeth on both sides; slightly convex surviving end; W W 40mm; L 47mm+	n/a	
30	TR 19	1	Copper-alloy button; complete but heavily corroded liver/blazer type with single loop at the back; diam. 15mm	n/a	x-ray

Phase 1: 1750–1850					
context	Trench	SF	description	pot date	recommendations
29	TR 5	3	Bone cutlery handle for pin- or tang-hafted implement; near-complete tapering with four flat sides and faceted edges; L 67mm	1820-1900	

41	TR 1	4	Copper-alloy drop handle; complete but corroded solid tear-drop form; remains of single rivet for fixing; L 40mm	1830-1900	x-ray
	TR 1		Iron nail; incomplete and heavily corroded	1830-1900	discard
42	TR 1		Complete domed rubber fitting with threaded inside; ht. 74 mm; internal diam. 28mm; probably intrusive car tow bar protection cap	1830-1900	discard
81	TR 10		Iron nail; incomplete and heavily corroded	19th century	discard

Phase 2: 1850-1900					
context	Trench	SF	description	pot date	recommendations
70	TR 12		Iron nail; corroded but near-complete cut T-head floor nail; L 110mm+	1680-1800	

APPENDIX 9: OASIS FORM

OASIS ID: preconst1-380612

Project details

Project name	Chatham Waterfront
Short description of the project	This report details the results of an archaeological evaluation undertaken by Pre-Construct Archaeology at Chatham Waterfront, Medway Street, Chatham. The site is located on the north-western edge of Chatham Town on the south bank of the River Medway adjacent to the Brook Low Level Pumping Station and is centred at National Grid Reference TQ 75625 68095 The fieldwork was carried out over twenty days between the 11th of November and 6th of December 2019. Sixteen of the proposed twenty trenches were excavated, whilst four remained unexcavated due to the presence of live surfaces or concrete encountered at a thickness which exceeded 1.2m below ground level (BGL). The earliest layers encountered consisted of a dark grey to black clayey silt which contained fragmentary CBM, pottery, clay tobacco pipe and glass, and which possessed charcoal, degraded chalk and mortar inclusions. These deposits were interpreted as either as layers of made ground or the accretion of occupation material dating to the late 18th to early 19th century. This is likely to date to the period of land reclamation prior to the development of Bessent's and Holborn Wharves within the study area. A number of brick-built walls, drains and floor surfaces were uncovered which were the vestiges of the extensive building which took place within the study area in the later 19th century. A small area of the old dockyard work-surface and Buildings 2 to 7 all belong to this phase. The architectural remains were overlain by modern 20th century made ground and concrete and tarmac surfaces which comprised the modern car parking area on the site.
Project dates	Start: 11-11-2019 End: 06-12-2019
Previous/future work	No / Yes
Any associated project reference codes	KCWC19 - Sitecode
Type of project	Field evaluation
Site status	None
Current Land use	Vacant Land 1 - Vacant land previously developed
Monument type	BUILDING Post Medieval
Monument type	WELL Post Medieval
Monument type	BUILDING Modern
Monument type	DOCK SURFACE Post Medieval
Monument type	WHARF BUILDINGS Post Medieval
Significant Finds	POTTERY Post Medieval
Significant Finds	GLASS Post Medieval
Significant Finds	CLAY TOBACCO PIPE Post Medieval
Significant Finds	ANIMAL BONE Post Medieval
Significant Finds	CBM Post Medieval
Significant Finds	METAL OBJECTS Post Medieval

Project location

Country England
Site location KENT MEDWAY CHATHAM Chatham Waterfront
Postcode ME4 4SL
Study area 1141 Square metres
Site coordinates TQ 75625 68095 51.384143924731 0.524187468153 51 23 02 N 000 31 27 E
Point
Height OD / Min: -1m Max: 1.5m
Depth

Project creators

Name of Pre-Construct Archaeology Limited
Organisation
Project brief Archaeology Collective
originator
Project design Becky Ryan
originator
Project Zbigniew Pozorski
director/manager
Project Wayne Perkins
supervisor

Project archives

Physical Archive Kent History Centre
recipient
Physical Contents "Animal Bones", "Ceramics", "Glass", "Metal"
Digital Archive Kent History Centre
recipient
Digital Media "Database", "Images raster / digital photography", "Survey", "Text"
available
Paper Archive Kent History Centre
recipient
Paper Media "Context
available sheet", "Correspondence", "Diary", "Drawing", "Matrices", "Plan", "Report", "Section"
Entered by Wayne Perkins (WPerkins@pre-construct.com)
Entered on 14 January 2020

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