Excavations at the mouth of Deptford Creek, Greenwich Reach

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Introduction

AN ARCHAEOLOGICAL excavation was carried out on the site of the former Deptford power stations at Greenwich Reach, London Borough of Greenwich (TQ 3760 7780: Fig. 1) which lies in the historic core of Deptford in the Parish of St. Nicholas. Pre-Construct Archaeology was commissioned by CgMs Ltd on behalf of their clients, Fairview New Homes PLC, to undertake the excavation in advance of the redevelopment of the site. The excavation, conducted between 18 August and 14 November 1997, followed an archaeological evaluation in 1996 which established two areas (Areas A & D) that warranted excavation, much of the site having been truncated by the power stations.

Area A was located in the southwest corner of the site next to St Nicholas Church, where the remains of the Trinity House almshouses, founded by the early 16th century, had been identified during the evaluation. This part of the site lay on the edge of the underlying gravel terrace and would have once been relatively high ground commanding an impressive view over the low-lying marshes to the River Thames and Deptford Creek. In contrast, Area D was located in the north of the site, on the edge of these marshes adjacent to the Thames where timber waterfront structures from the East India Company's Deptford dockyard had been identified along with extensive dumps of pottery manufacturing waste.

Historical background

There is a wealth of historical information relating to the site and its locality, the early focus of which would have been the medieval church of St. Nicholas, which may have Saxon origins. The same may be true of the Thames embankment, the earliest reference to which dates to the 13th century. The Deptford Strand area, to the west of the site, had been populated by the 13th century, with an economy probably initially based on fishing. Shipbuilding had certainly started here by 1420 and by the end of the 15th century was a well established industry[1].

The *Corporation of the Trinity House of Deptford Strond* was established by Royal Charter in 1514. Its initial responsibility appears to have been limited to pilotage of the Thames and maintenance of the almshouses which may have had 15th century origins. The property was described as a mansion house with almshouses in 1608; a bequest for four new almshouses was received in 1646, another six were built in 1663 and the hall was rebuilt 1664-6. Records suggest that the hall and 21 almshouses were demolished in 1786. The hall was not rebuilt although 26 new units were built in 1788. The almshouses were let to private tenants in 1863 and had been demolished by 1895[2].

The East India Company was formed in 1600, its first voyages departing from Deptford. Dockyard facilities were initially borrowed from the Royal Dockyard located to the west of the site. The company leased a stone wharf at Deptford Strand in 1607, had hired one dock and built a second by 1608, and was building ships by 1609. In 1614 they established a dockyard on part of Church Marsh leased from Bridge House where a dry dock, slipways and other structures were built. The company rented out the dockyard after 1626 and gave up the lease in 1644-9, although the dockyard remained operational and by 1788 it consisted of three slipways, a dry dock and a range of buildings and facilities. The dockyard continued to build ships including East Indiamen and Naval vessels until the latter part of the 19th century[3].

There is also a local tradition in the production of earthenware pottery, documented in Greenwich by the 16th century[4] with a number of kilns being

1. C. Phillpotts *Greenwich Reach: Preliminary Research Report*, CgMs Ltd unpublished report (1997) 15, 16.

2. *Ibid.* 17, 18.

3. *Ibid.* 19, 20.

4. R. Edwards *London Potters c. 1570-1710* J Ceramic Hist 6 (1974) 6.

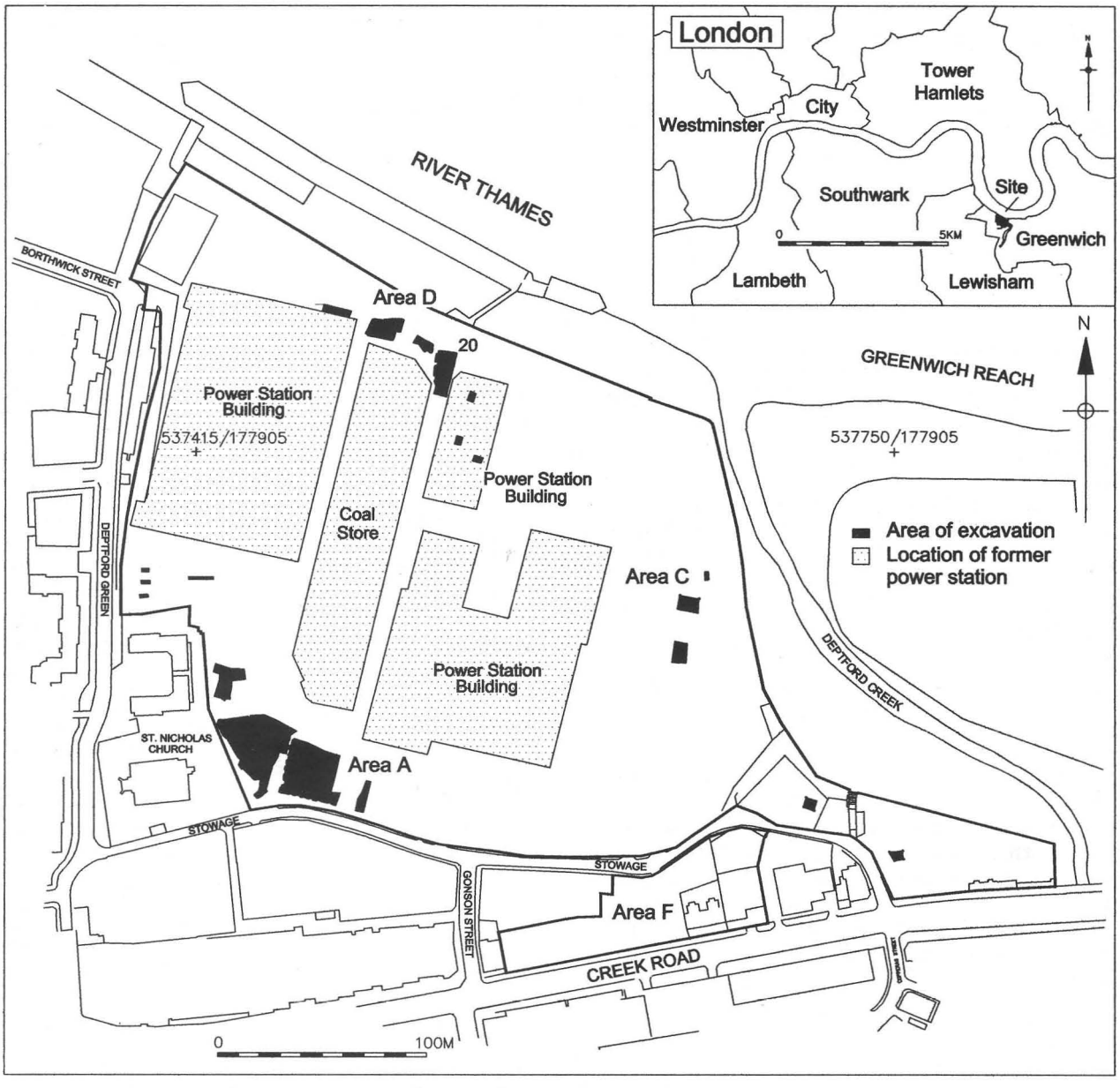

Fig. 1: site location and plan showing areas of excavation

established in Deptford by the 17th century[5]. The success of these potteries resulted in the wares taking Deptford's name. One of these potters occupied the northeast corner of the site by 1737 and can be seen on the Bridge House Estate map of *c.* 1780[6]. No structural remains of this pottery were found although extensive dumps of pottery waste were recovered.

Area A: The Trinity House Almshouses

The remains of the earliest almshouses (Fig. 2), known to have been established by 1514, consisted of a few discontinuous chalk foundations and a severely truncated earthen floor. This may suggest a single-range timber-framed building (Building 1) although the limited remains allow little scope for estimating the building's full extent. The building was still occupied in the late 17th century; a small area of floor produced many pins and a token of that date.

The remains of three buildings with brick foundations attributed to the 17th century were compara-

5. D. Garrod 'Research into the Deptford Potters' *Kent Archaeol Rev*, No 102 (1990) 158.

6. C. Phillpotts *op cit* fn 1, 23.

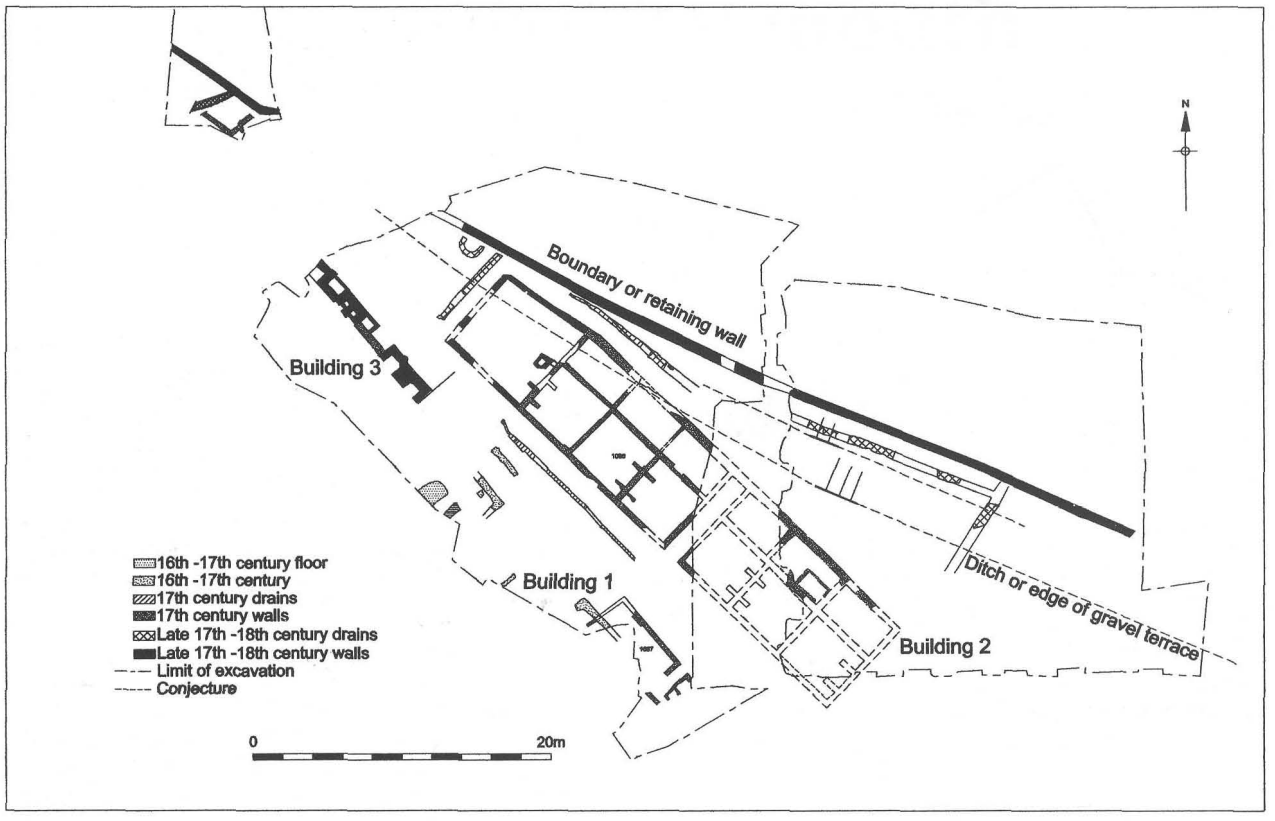

Fig. 2: plan of Area A: early almshouse buildings predating 1786

ble to the documentary records for the construction of three new buildings at this time and correlate to an engraving of the almshouses in 1700 (Fig. 3). This engraving also shows a range of jettied timber framed houses with mullioned windows, typical of 16th century vernacular architecture[7], in a comparable location to the remains of Building 1.

The remains of the first of these new buildings were limited to several relatively small walls and a tile floor, revealing little about the layout of the building. However, these limited remains may represent a cross-wing at the south-eastern end of Building 1, seen on the 1700 engraving to be a later addition, due to its relatively extensive fenestration as compared to that of the original part of the building. This addition may represent the four new almshouses bequested in 1646.

Building 2, the most complete of these new 17th century buildings, consisted of several almshouse units, each with two rooms on the ground floor, and probably equates to the documented construction of six new almshouses in 1663. Each of the rooms had a brick floor while the larger room had a central fireplace in the side wall; each unit being a mirror image of the adjacent. The larger room, presumably a parlour or general purpose room, measured 4.1m x 3.9m, while the smaller room, measuring 4.1m x 2.2m, probably had a service function. The 1700 engraving depicts this building with two floors, and chimney stacks central to the ridge of the roof suggesting that the small back room was built as an outshot, presumably housing a timber staircase. A central projecting gable, seen in the engraving, presumably corresponded with a tiled passage through the centre of the building found during excavation. It was not clear if this was a brick building or if the brick foundations acted as plinths for timber framing as suggested by the engraving. This building was found to have been extended to the north-west by the addition of an extra apartment with a single ground floor room measuring 6.3m x 6.4m. This modification to the building is also visible in the 1700 engraving.

The remains of Building 3 consisted of a substantial brick wall that incorporated two fireplaces and an external brick surface with drains to the rear. This building is thought to be the hall shown in the 1700 engraving, which was rebuilt in 1664-6.

7. Ken Sabel *pers. comm.*

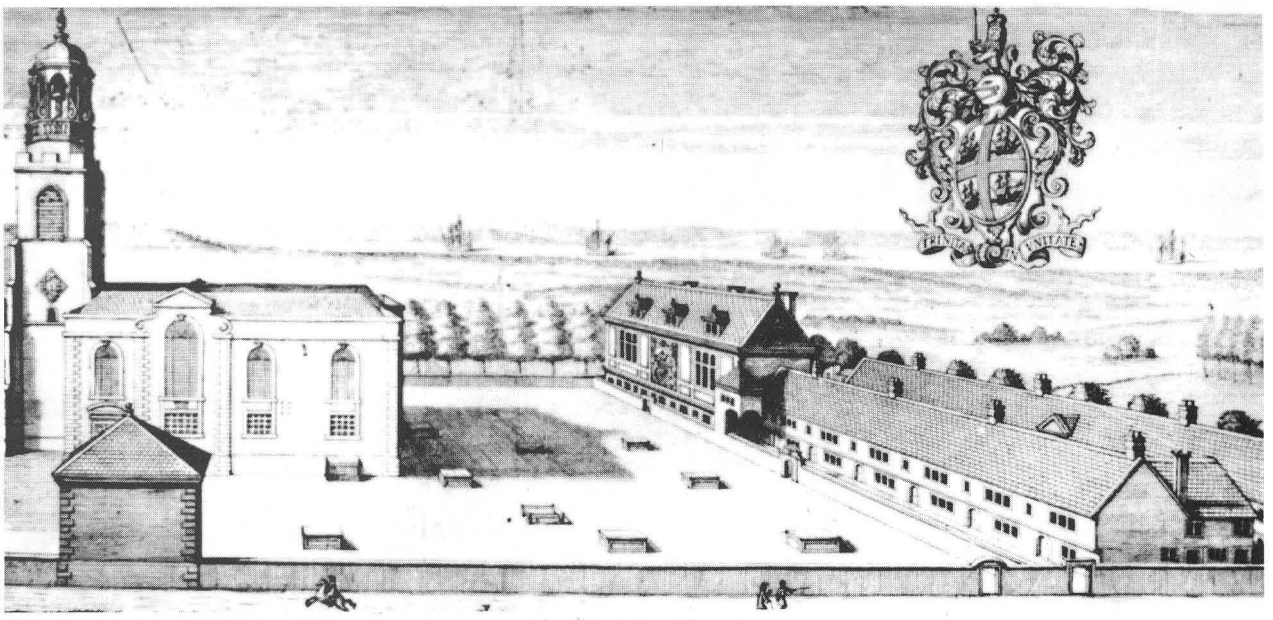

Fig. 3: engraving of Trinity House Almshouses and St. Nicholas Church dated 1700
(Lewisham Local Studies and Archives)

The layout of the complex did not conform to a regular courtyard or forecourt form which were the local norm at this time[8]. However some attempt does appear to have been made to adhere to these forms, although the symmetry of the complex had to be compromised due to the confines of the triangular site on the edge of the gravel terrace. The almshouse site had already been enlarged

8. *Ibid.*

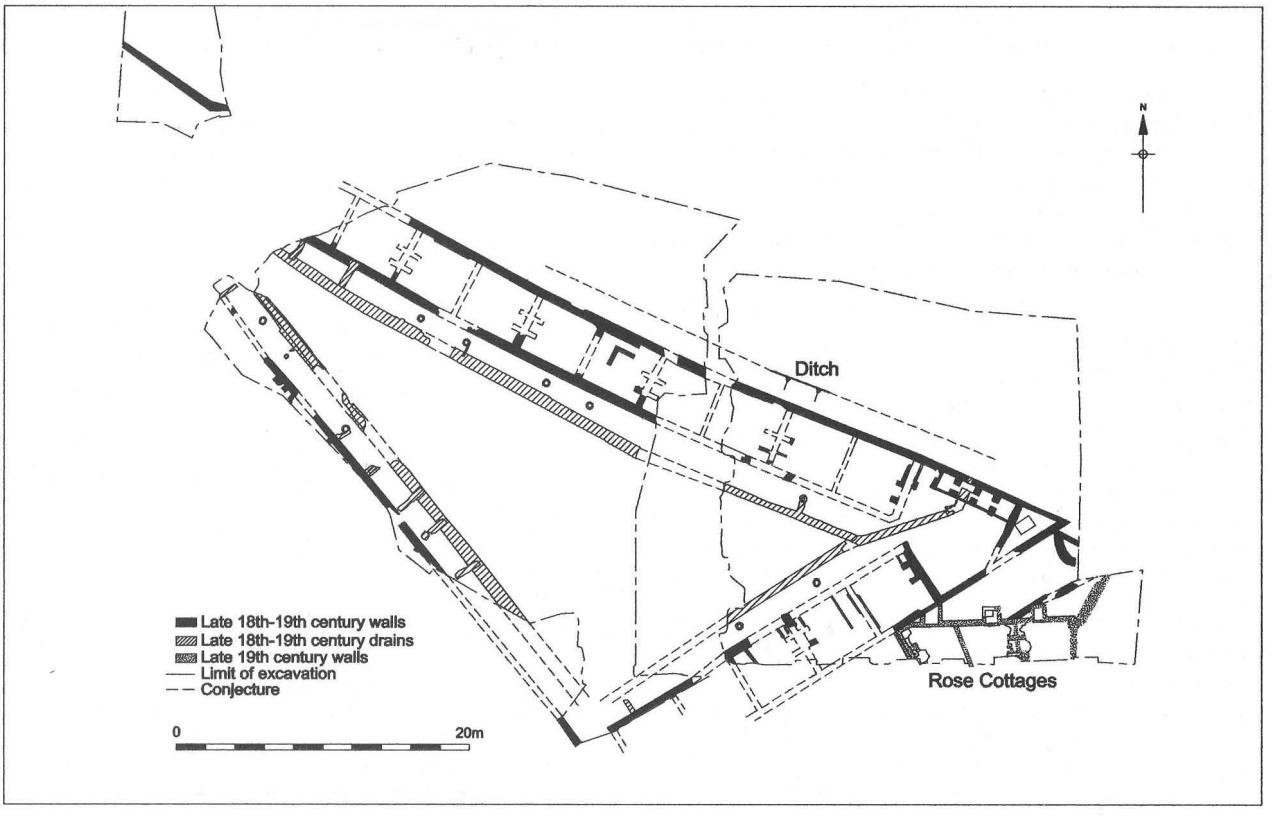

Fig. 4: plan of Area A: almshouse buildings after 1788

Fig. 5: general view of the Area A almshouse excavation (PCA)

before the construction of these new buildings by backfilling a ditch that ran along the marsh edge and making the ground up to a comparable level with the almshouses. The ditch, which had medieval origins, was re-dug further to the north-east, but subsidence of the unconsolidated dumps appears to have caused structural problems for Building 2 and may have been one reason for the construction of a massive retaining wall that survived to a height of up to 3.5m. The wall must have had another more significant function as it was found to continue at least 50m beyond the northern limit of the almshouses, and may relate to the dockyards that occupied much of the marsh by this time.

A complete rebuild of the almshouse complex was undertaken in the late 1780s (Fig. 4). All earlier buildings were demolished and a completely new ground plan of a larger almshouse complex constructed. The three major ranges of buildings along with ancillary buildings were recorded, forming a triangular courtyard complex apparently built as a single redevelopment in a more utilitarian style. The outside wall of the north-eastern range was built directly onto the boundary wall, seemingly the only structural element of the earlier phase of building to remain in use. A general view of these almshouses overlying the earlier 17th century remains are show in Fig. 5.

Two ranges consisted of several seemingly identical units or apartments while the third range lay largely beyond the limit of excavation. Each unit had only a single room on the ground floor measuring 4.2m x 3.9m. Each room contained a fireplace with an adjacent brick surface and a small area paved with York stone slabs, while the remaining majority of the floor would have presumably been timber. The fireplaces were substantially smaller than those belonging to the earlier buildings, reflecting the change from wood to coal as the predominant fuel at this time[9]. Externally each unit had its own drain, which fed into a main culvert via a silt-trap, for the discharge of liquid waste. There was also an ablution block for unsavoury waste through which the main culvert drained into a ditch on the marsh.

9. R. W. Brunskill *Traditional Buildings of Britain* Victor Gollancz Ltd, London (1992) 115.

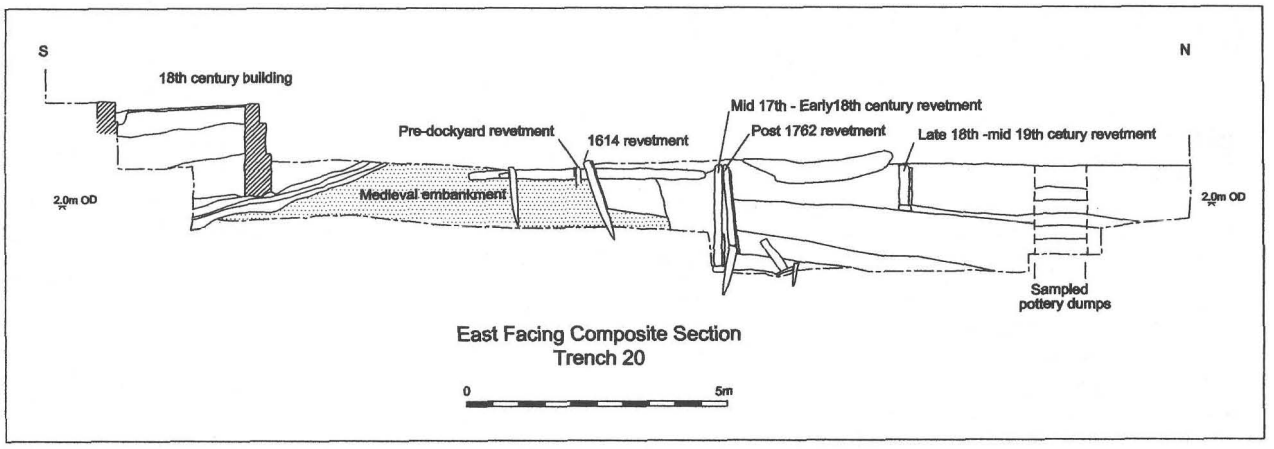

Fig. 6: east-facing section showing possible embankment and revetments

The basements of three mid-19th-century brick buildings fronting onto the Stowage were found to be equipped with all the features of a fitted kitchen or scullery. These buildings, known as *Rose Cottages*, were private houses, not actually part of the almshouse complex, which was itself let to private tenants after the removal of the last of the inmates in 1863, although by 1895 the almshouses had all been demolished, soon followed by *Rose Cottages*.

Area D: East India Company dockyard

The excavation in Area D revealed a sequence of waterfront developments, most of which were associated with the use of the site as a dockyard for shipbuilding (Fig. 6, 7 and 8). The high levels of silty clay to the south-east of Area D, and the profile of these deposits shown in Fig. 6, may be evidence of the medieval embankment. This received commission of repair by the early 14th century suggesting that it was well established by that time[10]. No structural elements to this feature were found although a shallow revetment along its upper northern edge may be a repair or consolidation of the postulated embankment (Fig. 7a).

The earliest structures directly associated with the dockyard were two lengths of northwest-south-east revetments constructed using horizontal planking nailed to the front (river side) of driven

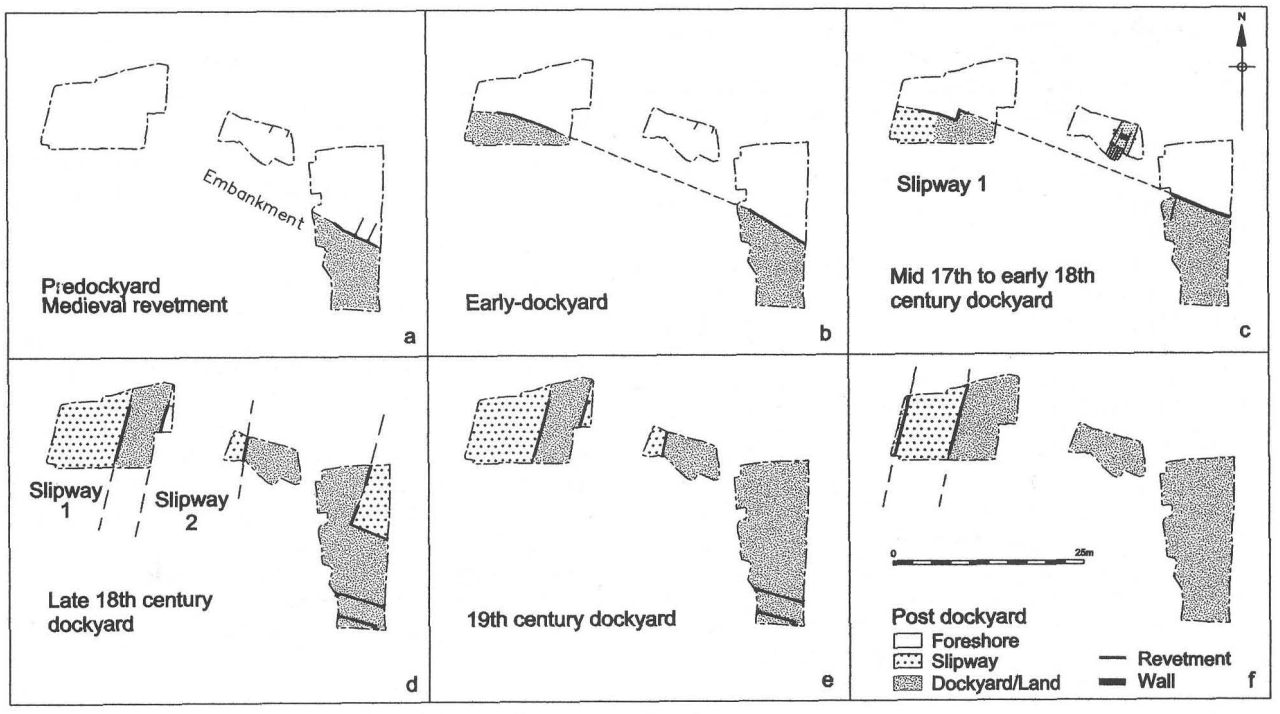

Fig. 7: phase plans of Area D showing the general sequence of reclamation

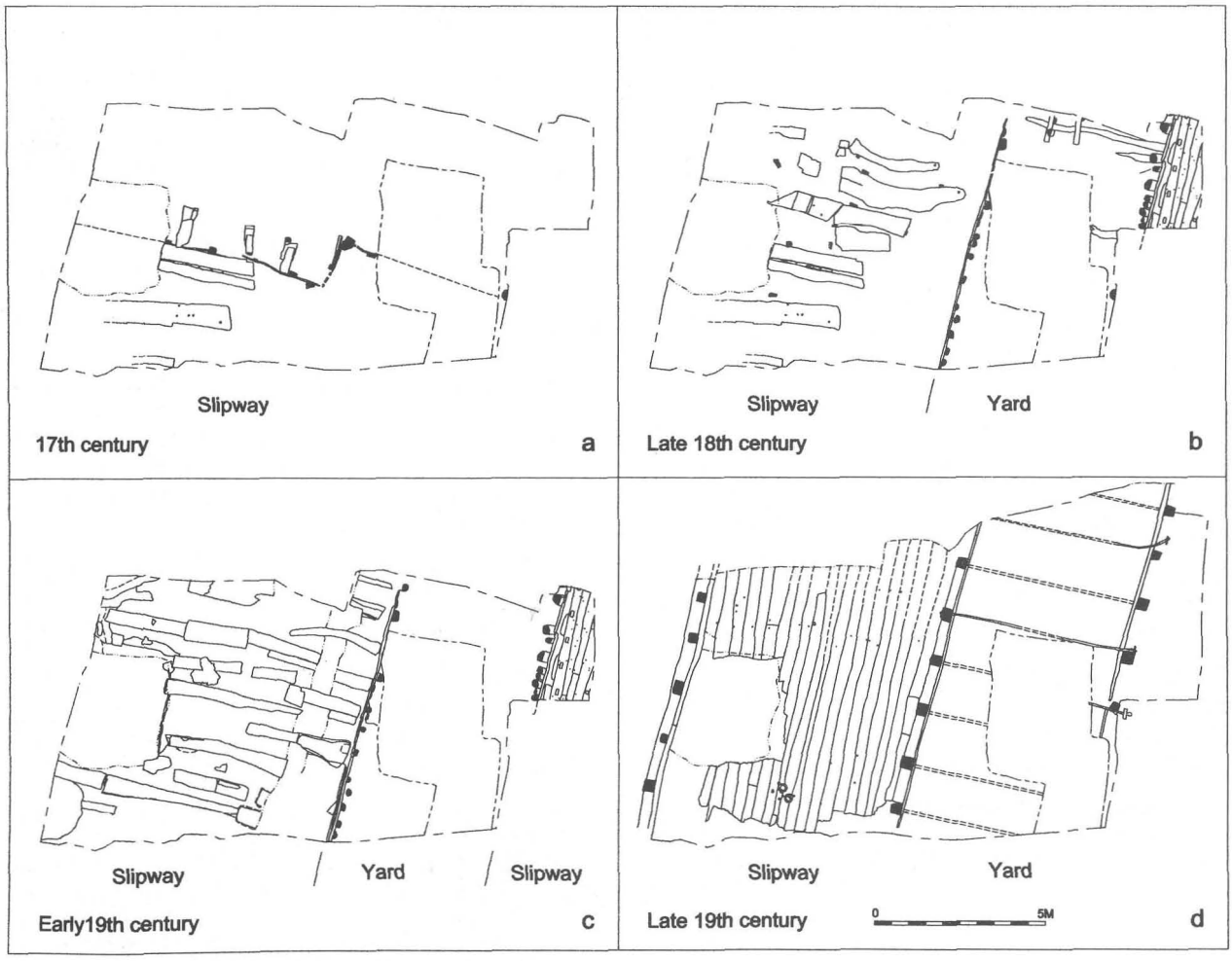

Fig. 8: detail plans showing development of Slipway 1

posts although no bracing was found (Fig. 7b). The primary function of both revetments appeared to be the consolidation of the embankment or riverbank rather than the reclamation of land. A 'first-use' timber from one of these revetments produced a provisional felling date of 1614[11], the same year in which the East India Company founded the dockyard.

The earliest features specifically associated with shipbuilding were two substantial load-bearing timber structures. The first of these, Slipway 1, was built 'on land' to the south of the river wall while the second consisted of two large secured blocks which rested on perpendicular horizontals lying directly on the foreshore. It has not been possible to establish whether these features were associated with this initial phase of the dockyard or if they were built at a later date (Fig. 7c).

10. C. Phillpotts *op cit* fn 1, 13.

A new river wall, built between the mid 17th and early 18th century, was substantially deeper than its predecessor, with no attempt to reclaim a significant amount of land (Fig. 6 and 7c). These revetments were built in a similar fashion with horizontal planks nailed to the front of posts set into a baseplate; both front and back bracing was recorded.

The third major phase of development in the dockyard saw a huge northwards expansion into the river with the construction of a whole new frontage, the northern extent of which lay beyond the limit of excavation (Fig 7d). However, two slipways and a possible small dock associated with this development lay within the area of excavation. The phase of construction can clearly be seen on a map of the site *c.* 1780 while a timber post produced a felling date of 1762.

11. Interim results, University of Sheffield Dendrochronology Labororatory (16/6/98).

Before this late-18th-century development, Slipway 1 had consisted of large horizontal timbers creating a load-bearing surface adjacent to the river, its full extent remaining unknown (Fig. 8a). The northernmost timber was fixed to the revetment via mortises into which tenons on top of revetment posts fitted. The late 18th century saw this slipway extended towards the north, with the construction of a north-south revetment holding back made ground and defining the eastern edge of the slipway. Mixed deposits and timbers were then dumped on the foreshore and large horizontal timbers staked down, creating a sloping area of hard-standing (Fig 8b).

This slipway was later strengthened, probably in the early 19th century, with the addition of several large long north-south timbers secured to the slipway's surface, followed by a layer of substantial east-west timbers within a chalk packing (Figs. 7e and 8c). This may reflect the technological developments which permitted the construction of larger ships after *c.* 1800.

Slipway 1 was rebuilt in the late 19th century, probably at the same time that Slipway 2 was abandoned and the river wall was rebuilt with its height being raised by at least 1.5m (Fig. 7f). A timber revetment 2.5m high, back-braced with iron tie-rods, was added to its eastern side with a concrete wall built to the west (Fig. 8d). This last manifestation of the slipway was probably built at the same time as Ferranti's power station (1887), possibly for the delivery of coal rather than the construction of ships.

Slipway 2 was similar in design to the other slipway during the late 18th century, although no evidence was found for an earlier structure or later modifications. This slipway consisted of two north-south revetments defining its sides and retaining contemporary ground make-up dumps to either side. The area between these revetments was filled with compacted dumps and substantial east-west horizontal timbers resting on several north-south timbers. Oak planks nailed to the underlying timbers formed a floor to the slipway.

The excavation exposed two distinct areas of the dockyard. The eastern half was an open yard area with deep wharves for loading and unloading (Fig. 9) and a brick-walled building associated with the third phase of dockyard construction to the south. The building was marked 'crane house & saw pits' on a 1789 map of the dockyard although no evidence of either activity was found. The lower

Fig. 9: general view of the Area D dockyard excavation (PCA)

slipway area was located to the west of a north-south revetment that retained make-up dumps in the higher yard area to the east, while the slipway area would have been prone to daily flooding at high tide.

Many of the structural timbers used in the construction of revetments and slipways were reused ship timbers. Those identified included four rudders, a stempost, a keelson, several frame timbers and hull planks almost exclusively from carvel built ships, sheathing planks, a floor rider, a windlass and three possible quartered capstan timbers. Another group of timbers, used in the substructure of the slipways, represent waste from shipbuilding. These timbers were either 'off-cuts' produced after sawing a timber to shape, or 'roughouts' where timbers had been basically shaped, but for some reason unfinished and rejected.

The dumps associated with the waterfront construction appear to have come from a variety of sources. One of them, associated with late 18th century construction, was found to be composed of primary waste from shipbuilding, presumably during the 17th or early 18th century. The material contained used and unused treenails, wood chips and shavings from a range of tools, iron nails, string, rope and much caulking material.

Deptford pottery wasters

A second group of dumps associated with the partial backfilling, and subsequent total backfilling of a possible dock during the late 18th and 19th century consisted of pottery waste (Fig. 10) presumably from one of Deptford's potters, one of whom occupied the northeast corner of the site during the 18th and possibly 17th century. Evaluation failed to locate the pottery buildings, the remains of which were probably truncated during construction of the power station.

Approximately 2% of each dump of wasters was 'randomly' sampled, and analysis showed that three pottery-types were present; glazed and unglazed coarse post-medieval redware (PMR), a post-medieval black-glazed type ware and a white earthenware. The latter was solely present as crucibles, for which Deptford was famous during the 17th century[12]. The vessels present in PMR consisted largely of flower pots and industrial wares; sugar cone moulds, syrup-collecting jars, distillation flasks and a waisted jar or bottle. Domestic shapes were present as kitchen wares; cauldrons, colanders, pancheons, skillets and pipkins; table wares included dishes, cups, jugs, plates and porringers, with chamber pots, storage jars, lids, lamps and several types of bowls also manufactured. Kiln furniture consisted of roofing tiles used as spacers between pots within the kiln, and vessels were frequently fused to them from the glaze runs. The few sherds of the post-medieval black-glazed type ware included a fumery, porringer, bowl and a waisted jar or bottle.

The pottery is datable to the late 17th century and comparable to vessels and decorative techniques at Woolwich during the Phase II and III pottery production periods[13]. This similarity between the Woolwich and Deptford kiln products seems to indicate a localised pottery tradition in south-east London during the 17th century.

Pottery production at Deptford is often referred to as specialised because of competition with Staffordshire and other pottery production centres, but the Greenwich Reach wasters seem to indicate a wide range of products. Although vessels made for the sugar refining industry (syrup-collecting jars and sugar cone moulds), as well as flower pots, do appear to be the main output of vessel shapes, this may simply reflect the pottery's location and ability to supply sugar-refining factories, largely located along the Thames[14] and its other outlets. Perhaps the wide range of vessel types produced during the late 17th century at Deptford indicates that Staffordshire's influence on the pottery markets had not peaked, and subsequently a more limited variety of wares was produced in south-east London during the 18th and 19th centuries.

Conclusions

The excavations at Greenwich Reach revealed archaeological remains associated with Deptford's rich maritime history. The Trinity House almshouses and East India Company's dockyard reflect Deptford's links with the River Thames, the Port of London and the growth of international trade and shipping throughout the post-medieval period. The importance of shipbuilding and increasing demands for imports as well as locally manufactured goods such as pottery saw the extensive development of floodplain marshland and river frontage along much of the Thames, reflecting changes in agricultural and industrial landuse from the 17th century onwards.

12. R. Edwards *op cit* fn 4, 6.

13. K. Brockley & S. Pryor 'A Seventeenth Century Kiln Site at Woolwich' *Post-Medieval Archaeol* 12 (1978) 30-85.

14. C. M. Brooks 'Aspects of the Sugar-refining industry from the 16th to the 19th Century' *Post-Medieval Archaeol* 17 (1983) 11.

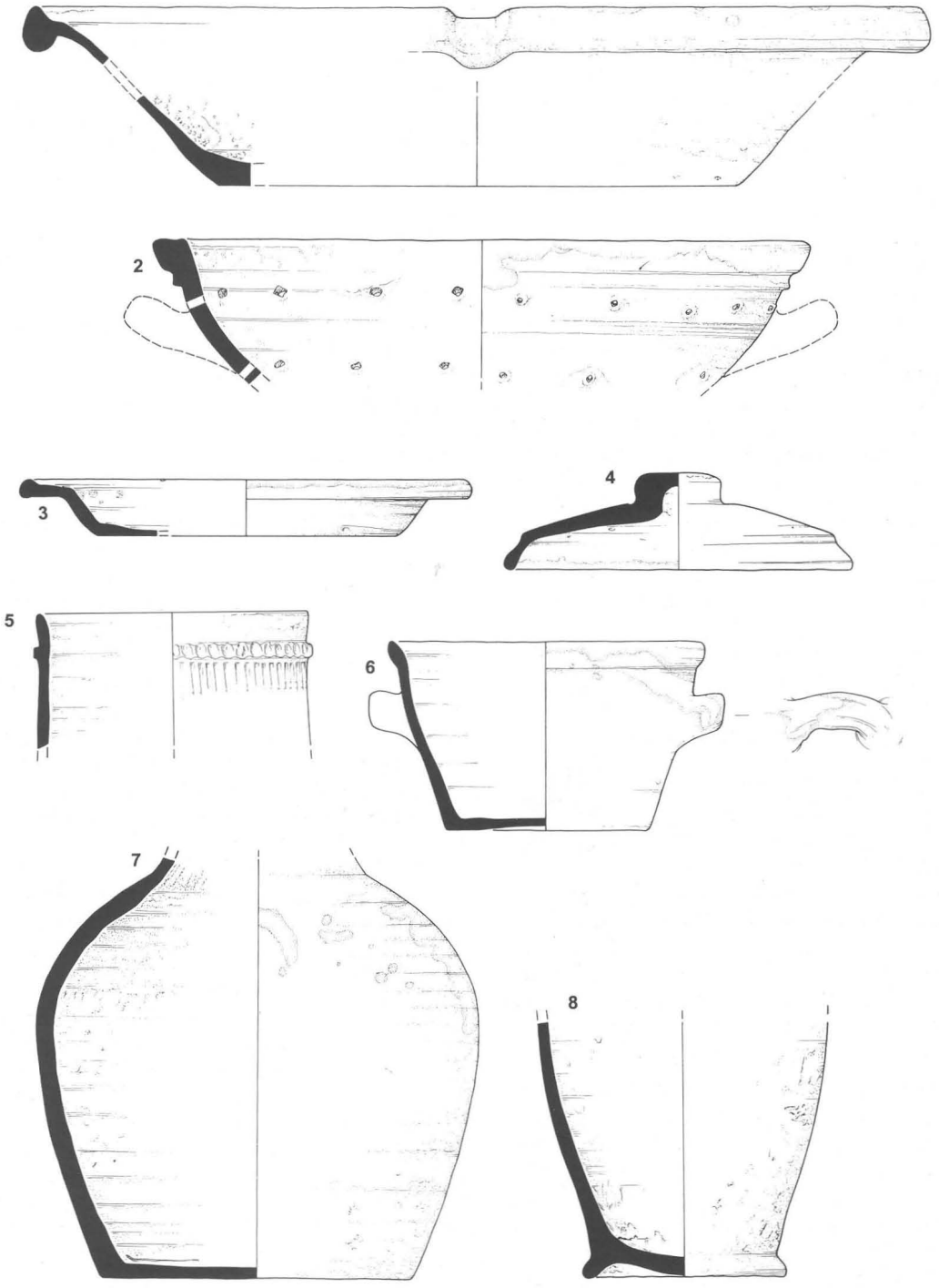

Fig. 10: post-medieval redware kiln waste; 1 pancheon, 2 colander, 3 dish, 4 collared lid, 5 cylindrical jar, 6 small handled bowl, 7 distillation flask, 8 syrup-collecting jar (scale 1:4).

Acknowledgements

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