Ship to shore

Eliott Wragg continues the account of the significant discoveries made on the foreshore by the Thames Discovery Programme over three industrious and fruitful years, this time concentrating on all things nautical.

Introduction

During the period October 2008 to September 2011, 45 archaeological foreshore zones, from a total of over 200 possible sites across Greater London, were investigated under the auspices of the Heritage Lottery funded Thames Discovery Programme (TDP). TDP Team Leader Nathalie Cohen's article *Fieldwork on the Foreshore* (London Archaeologist 13.3) discussed the discoveries of the TDP over this period with the exception of the numerous nautical remains with which this short article is concerned. Evidence of more than 60 vessels, some semi-intact and abandoned or hulked, some represented by timbers re-used in structures, and some represented by isolated timbers, has been encountered on the Thames foreshore. Structures associated with both the launching and breaking-up of vessels have also been recorded. Predominantly originating from the 18th to the 20th centuries, some of the most important discoveries are discussed here.

The work of the TDP and its 370 volunteers comprising the Foreshore Recording and Observation Group or FROG continues, is now hosted by Museum of London Archaeology. Recently the TDP won 'Best Community Archaeology Project' at the CBA British Archaeological Awards.

Warboats to houseboats

Brentford[1], near the western limit of the tidal Thames, is well known as a mooring with a wide range of vessels such as narrow boats, Thames barges and Dutch barges. It is, however, also a boat graveyard, with a large number of vessels slowly decaying, having first been stripped of re-useable fixtures and fittings and then abandoned.

Fig. 1: Ex-RN pinnace at Brentford (Eliott Wragg)

Two vessels were selected by the TDP to have the copious quantities of alluvial silt removed from them before investigation and recording. The first comprised the lower hull of a vessel some 19.50m long of light timber construction with a double diagonally planked hull. Twin engine and propeller mountings were noted along with two longitudinal copper-alloy strips which may have been for earthing the vessel, while a small brass plate was recorded reading 'Position of Cradle'. The more intact of them (Fig. 1), *c.* 12m long, once partially excavated, revealed some surprisingly modern features, including two 240 volt plug sockets and a shower cubicle. She was however of similar construction and propulsion to the first vessel, while two reinforced rings with bracing down the hull were located on the semi-intact starboard gunwale.

These construction and propulsion techniques are consistent with those used in Royal Naval small craft in the early to mid-20th century, as is the surviving hull form of the second craft. The rings in the gunwale of that vessel appear to have been for lifting the craft out of the water and into the cradle referred to on the brass plate found in the first vessel; the cradle itself being located on a parent warship. These two vessels were probably naval ships' boats or pinnaces, one of which had certainly been converted to a houseboat after WWII, and, given the location, the other had probably undergone the same transformation.

Bombed in the Blitz?

Other possible evidence of WWII vessels was found at the Custom House site[2], on the north bank just

downstream of London Bridge. Three small vessels have been observed, one of which only appears at the lowest of low tides and has only been photographed by the TDP.

Of the other two, one of them, 5.50m in length, and of fairly rudimentary construction appeared to be a small punt-ended cargo lighter similar to those which worked further upstream of central London. One of the piles of the current jetty had punched through the vessel. What was this craft doing here? It seems possible that she could have been abandoned and drifted downstream before suffering bomb damage at Custom House (the foreshore is littered with WWII demolition material) and finally coming to rest.

The other, 8m in observed length, was a quite different vessel (Fig. 2). A clinker-built boat, she appeared to have had a long life, with evidence of a number of repairs. She seems to have originally been sail and/or oar-powered and then modified to take a small engine. The form suggested that she may have been a ship's boat, used more for transporting crew and passengers than for cargo. The fact that the entire bow section has been lost, again suggests that this craft was hit by bombing and abandoned on the foreshore.

The partial remains of a similar-sized boat have been recorded under a concrete hard at Alderman's Stairs[3], downstream of St Katherine's Dock. Could this vessel have suffered a similar fate?

Fig. 2: Possible ship's boat abandoned at Custom House (Nathalie Cohen)

Fig. 3: The platform at Anchor and Hope Wharf (Nathalie Cohen)

Graveyards of the Royal Navy

The sites at Chambers Wharf, Bermondsey[4], Hanover Stairs, Rotherhithe[5] and Anchor and Hope Wharf, Charlton[6] provide ample evidence for London's once thriving, yet long extinct, ship-breaking industry. They also provide clear evidence as breaking rather than building assemblages; many of the timbers having been sawn through, rather than being jointed at either end.

At Chambers Wharf, a gridiron, for vessels to sit on at low tide, appears to have been built in two phases. Initial research from plans held at the National Maritime Museum suggests that they are lower frame timbers, keels, a stem post and a rudder from 18th century 2nd or 3rd rate ships of the line. While at Hanover Stairs, a probable slipway has been constructed from keels, lower frames and stem posts from vessels of similar size and date. FROG member Jacqueline Day has been researching documentary sources suggesting that the Cristall family were breaking ships at Hanover Stairs during the late 18th to mid 19th century; these remains probably being their work. Research is ongoing for both these sites to further

Fig. 4: Eastern Slipway at Burrell's Wharf (Nathalie Cohen)

our understanding of the maritime heritage of Rotherhithe and Bermondsey.

The site at Anchor and Hope Wharf is quite extraordinary and probably unique. The famous Castle's shipbreaking firm had a yard here from the mid-19th century to the early 20th century[7]. The evidence for their presence lay all around in the form of broken vessel timbers re-used in various features including revetments, a crane base and a slipway. Preliminary research suggests that warships of sloop, frigate and 1st rate size may be represented in these structures.

Research has mainly focused on a rectangular platform (Fig. 3) measuring some 20m by 5m, presumably constructed to aid the breaking process, and comprising around 100 extremely large vessel timbers along with huge iron plates and 'lumps'. From comparison with plans held at the National Maritime Museum, along with documentary, cartographic and photographic evidence, it seems likely that most of the timbers comprise lower frame and keel elements from the bow of the 1st rate ship of the line HMS *Duke of Wellington*, on her launch in 1852 the largest warship in the world, along with lower frames from either HMS *Anson*, *Edgar* or *Hannibal*, 2nd rates all launched 1854–60; the iron plates and lumps being consistent with the deck and side armour of the proto-battleship HMS *Ajax* launched in 1880. All of these ships appear to have been broken up at Anchor and Hope Wharf in 1904/5[8].

The range of vessel sizes and types represented at this site on its own is unusual; what really marks out Anchor and Hope Wharf as unique is its significance in embodying the seismic changes in naval technology from sail to steam and from wood to iron.

Brunel's last stand

In some respects Anchor and Hope Wharf may be dwarfed in significance, certainly in size and ambition, by what was found at Burrell's Wharf, Millwall[9]; the site of the most extraordinary engineering project of the entire 19th century. Here the TDP recorded the massive concrete and timber slipways (Fig. 4) constructed for the building and launch of Isambard Kingdom Brunel's great folly, the leviathan that was the SS *Great Eastern*, his greatest project that, in the end, killed him.

The construction of a ship in the 1850s that would not be exceeded in length until 1899, and in displacement until 1901, a ship truly ahead of her time, required a special launching method, especially in the narrow confines of the Thames. Hitherto ships had been launched lengthways down a slipway before being held up by restraining chains; if the leviathan had been launched in the traditional manner she would have ended up in Deptford High Street. As with all things relating to *Great Eastern* her building and launch would be novel; she would be built and launched sideways.

Unfortunately, the launch slips (originally topped by iron bars, now long gone), clearly surveyed in place to precision by Brunel's surveyors were situated upon prehistoric peat. During

the long construction period, parts of the slipways must have started settling into the slowly compressing peat, with the result that on launching, the huge 10,000 ton weight of the vessel was unevenly distributed and a launch that should have taken a couple of hours, actually took three months, making Brunel a laughing stock and contributing to his untimely death.

Soldiers all at sea?

At Tripcockness[10], close to the Thamesmead Estate east of Woolwich, the remains of four small unpowered wooden craft have been deliberately hulked on the foreshore as river defences. While one of them was a typical double-ended Thames lighter used for transporting goods from ship to shore, or being towed along the river by tugs, the other three were of a hitherto unknown type (Fig. 5).

Some 16 to 18m in visible length and with beams of approximately 4.40 to 5.40m, these vessels were flat-bottomed, with square transoms and pointed bows. Their most obvious feature was a large 'v' shaped hopper running longitudinally for much of their lengths, presumably for a bulk cargo such as grain, coal or aggregate. Internally their construction was conventional, comprising keelson, floor timbers and frames. Externally, however, they were quite unlike most vessels; no keel was present and there was extra external planking to stiffen the sides, reminiscent of a wooden cart. The impression was given that they had been built not by boat-builders, but by carpenters who had seen the inside of a vessel but had no knowledge of a boat's underside and, indeed, no understanding of the rudiments of naval architecture. The fact that all were missing either bow or stern suggested that they had not proved entirely successful in their role. Who then built these curious vessels and what was their purpose?

As Woolwich Arsenal expanded throughout the 19th and early 20th century, eventually out to Tripcockness, ballast and mud was being dredged from the river, sometimes using convict labour, to help reclaim the low-lying ground and also improve access for ships[11]. The Arsenal certainly possessed its own vessels both for ferrying stores and for ballast extraction, sometimes built to a specific design, but in 1890 Admiralty oversight over vessel construction was removed and the Arsenal's Inspector of Machinery became Superintending Engineer and Constructor of Shipping[12]. Could this layman then have been responsible for our unique yet fatally flawed craft?

Fig. 5: Woolwich Arsenal ballast lighter? (Eliott Wragg)

Conclusions

Quite clearly then, there is a large range of vessel remains so far identified on the Thames foreshore; ongoing research will hopefully add more to our knowledge of the vessels found, their construction and careers, and of London's long-lost maritime industries. While the FROG members, frequently ranging the Thames foreshore, will no doubt find more nautical remains eroding out to be recorded in the future.

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For further information and news on latest discoveries, please visit www.thamesdiscovery.org.

1. Museum of London site codes FHL10 and FRM22
2. FCY04
3. FTH02
4. FSW01
5. FSW03
6. FGW14
7. Castles Shipbreaking webpage: www.castlesshipbreaking.co.uk/castle_wharves.htm
8. Chesnau & Kolesnik (eds) *Conway's all the world's fighting ships. 1860-1905* (1979) 26–7; Lyon & Winfield *The sail and steam navy list. All the ships of the Royal Navy 1815-1889.* (2004) 256–7, 187, 185, 191.
9. FTH15
10. FGW23
11. O.F.G. Hogg *The Royal Arsenal: Its background, origin, and subsequent history* Vol. 2 (1963) 594, 720, 769.
12. *Ibid.* 580–1, 696–7, 719, 878–9.