Learning legacy

Lessons learned from the London 2012 Games construction project

The discovery of a 19th century boat

Archaeological investigations across the Olympic Park have revealed a number of remarkable finds associated with the development and history of the site. One of the most striking was the near-complete remains of a small clinker-built boat dated to the early 19th century. From prehistory, the river had been the focus of agricultural and then industrial activity in the Lea Valley. Before the introduction of the railways and major road improvements, the river provided the main method of transporting goods across the landscape, particularly to London. The life of this one boat has revealed many different aspects of the river's use during the Victorian period.

The boat uncovered

The boat was found during the excavation of an archaeological evaluation trench on the western side of the Park. It measured approximately 5 metres long and 1.1m wide. It was well preserved, having settled into the river silts along the former channel of Pudding Mill River, just south of where it branched off the River Lea.

The boat lay, pointing downstream, alongside a wooden revetment of timber piles and planking, probably built in the first half of the 19th century, next to Nobshill Mill on the eastern side of the river.

The boat's discovery led to the evaluation trench being extended to cover an area of approximately 130 metres squared to allow its full recovery, as well as the excavation of the revetment and adjacent features.

Conserving and assessment

About 70 per cent of the original hull, including the bow and stern, was present, although the upper parts were missing.

Once the boat was recorded in its original position, it was removed from the site to undergo a period of conservation. This was followed by detailed analysis to discover more about its origins, construction and use. The boat showed at least four phases of repair, and three main phases of use. These, together with the associated datable finds, suggest it was built in the first quarter of the 19th century.

Construction techniques

The boat was clinker-built, a method using overlapping planks. This construction technique dates back to the Saxon period.

The 'shell first' system was used, with the planks set around horizontal timbers forming a hull shell, within which strengthening frames were then added. This was one of several systems, surviving into recent times, used in the Thames region over the last 500 years for building a variety of small boats.

These methods of boat building changed greatly over time and many of the traditional techniques, passed down through generations of boat builders, were lost when machines enabled the mass production of materials and worked wood.

There are only a few records or remains of this type of small clinker boat of the 19th century, and this vessel can be seen as a rare technological missing-link between

The excavation of the 19th century boat

Recording the boat

The boat after cleaning

recent 'traditional' craft and those of the early post-medieval period.

The life of the boat

Close examination of the boat revealed a number of adaptations during its working life.

Its original light construction, and its distinctive long profile below the waterline, curving stem and near-vertical stern post, would have enabled it to perform as a fast, light rowing boat, ideal as a ship's tender for ferrying crew and goods between ship and shore.

It was probably built fairly locally, although if it was designed for carriage aboard ship, then a more distant origin is also possible.

Its light and slender construction, however, while ideal for speed, was not designed for strength and later the internal frames were doubled to add strength. A false keel, secured by substantial iron bolts, was also added to provide stability and presumably to turn the boat into a sailing pleasure craft.

Final phase

In its final phase – between 15 and 30 years after it had been built – two crudely-fitted bulkheads were inserted forming lockers, and various fittings were added in the bow to accommodate the use of a punt gun. This is a very large shotgun, capable of killing many birds with a single discharge. A handful of bird shot was found in one locker and more was found during cleaning and conservation work. The boat, by now rather old and weakened, appears to have been used for wild fowling on the sheltered waters of the lower River Lea. Eventually it may have become too leaky and was abandoned at Nobshill Mill.

The boat's legacy

The boat reveals snapshots into the past, and demonstrates the craftsmanship and ingenuity of the boat builders in the early 19th century.

Close examination of the boat revealed that great care and an attention to detail was paid to its construction. It also shows, through the various repairs and additions, the abilities of the boat users to customise the vessel to their changing needs and circumstances.

Birdshot found in the boat

Project

Archaeology

Supplier

Wessex Archaeology

Author

Gareth Chaffey, Senior Project Officer

Andrew B Powell, Project Manager – Wessex Archaeology

LOTTERY FUNDED

department for culture, media and sport

MAYOR OF LONDON

LONDON DEVELOPMENT AGENCY

© 2011 Olympic Delivery Authority. The official Emblems of the London 2012 Games are © London Organising Committee of the Olympic Games and Paralympic Games Limited (LOCOG) 2007. All rights reserved.

The construction of the venues and infrastructure of the London 2012 Games is funded by the National Lottery through the Olympic Lottery Distributor, the Department for Culture, Media and Sport, the Mayor of London and the London Development Agency.

Published October 2011
ODA 2010/374