



Maritime  
Archaeology  
Sea Trust

PROTECTING OUR FUTURE

# MAST 2019 Newsletter

A third season of excavation on the Royal Navy's first HMS *Invincible*, sunk in 1758 in the Solent, has yielded some spectacular finds.

## The Invincible Project

*In 2016, MAST, in partnership with Dan Pascoe, Bournemouth University and the National Museum of the Royal Navy, received a £2 million grant from LIBOR fines to conduct an emergency rescue excavation of the site. A further £360,000 grant from Heritage Lottery Fund permitted a third and final excavation season in 2019.*

## The cutwater

The single largest component of the ship raised is its cutwater, so named as the part of the ship's bow that "cuts" first through the sea. The cutwater is the projecting curve from the ship's bow and this is a unique example. Only two others are known to exist, one on HMS *Victory* in the Portsmouth Historic Dockyard and one on the USS *Constitution* in Boston. Both ships have been in maintenance nearly all their lives. This is the first to be raised from the seabed.

*"She's probably the most important mid-18th century shipwreck in British waters...and a key component of naval shipbuilding in the 18th century"*  
Professor Dave Parham,  
Bournemouth University



Images 1 & 2 below: Raising the 6 tonne cutwater



*“It’s probably  
the best  
preserved 18<sup>th</sup>  
century  
warship in the  
UK,” Dan  
Pascoe, site  
licensee and  
archaeologist*



*Image 3: HMS Victory cutwater with draught marks*

The cutwater is formed by assembling several pieces of large timbers and its purpose is to open the column of water as the ship sails along. We also found and recovered lead draught marks XII and XIII which match the carved marks on the cutwater. We are now working on a four-year conservation plan for this object before it goes to the National Museum of the Royal Navy in Portsmouth.



*Image 4: Draught mark associated with the cutwater (see image 3).*

Other important finds from the 2019 season have included the excavation and recovery of the mainstay. This supported the main mast fore and aft. The rigging was probably discarded or lost when salvaging the masts while the upper parts of the ship remained above water. Another exciting find was one of the gunports. Its dimensions indicate it would likely have come from the quarterdeck.



*Images 5 & 6: a gunport from the quarterdeck and an 18 inch deadeye*

These were commonly made of elm and used to make the shrouds (the lines supporting the mast) taut in a block and tackle system. A closer look at the artefact reveals the roman numerals XVIII.



*Image 7: mainstay rigging*

We continued to find smaller finds such as shoes, wig cullers and other personal possessions throughout the seasons.



*Image 8: a shoe in situ*

### **Total Dive Time**

In 2017 we carried out 350 dives between 9 staff divers and volunteers over 25 days equating to 21,682 minutes underwater. In 2018 we dived for 47 days with the same number of people. We carried out 661 dives equating 57,889 minutes on the seabed. In 2019 we carried out 447 dives, spending a total of 37,628 minutes below the surface.

## **Maritime Observatory**

In November 2019 MAST and OceanMind, a not-for-profit organization which specialises in monitoring of illegal, unreported and unregulated fishing for governments and the private sector, joined forces to harness the growing capabilities and the space sector to better protect important maritime sites from illegal salvage.



*Image 9: Command Centre at OceanMind's HQ at Harwell*



*Image 10: Launching the Observatory at the World Ocean Council annual conference in Paris in November*

Together we are launching an international Maritime Observatory to protect global underwater cultural heritage. It establishes a cross-sector team with strong government input that creates a hub for monitoring the maritime domain and sharing with relevant stakeholders to protect important maritime sites.

The Observatory aims to help detect and thus deter looting of wreck sites – eg. merchant ships carrying valuable cargoes and warships, many of which contain human remains, and sites at risk due to their pollution potential (oil and ordnance). Most looting centres on metal wrecks, principally WWI and WWII sites with non-ferrous metals of considerable value. This criminality is not limited to the maritime domain and often enmeshes wider illegal activities.

The Observatory uses a combination of satellites, artificial and human intelligence to study and detect such illegal activity developing patterns to promote the evolution of a predictive intelligence tool.

## Poole Iron Age logboat

Found on the Dorset coast half a century ago, the Poole Iron Age logboat survived thanks to local divers and volunteers and Poole Museum. In an almost two-year project Jessica Berry, CEO of MAST, and Professor Dave Parham of Bournemouth University assembled the combined knowledge of all the relevant experts in the field of Iron Age logboats



*Image 11: Laser scanning the boat*

This has culminated in a significant multi-disciplinary work carried out by a variety of specialists, from conservators to woodworking and boatbuilding experts, exploring not only the craft's history but also its functionality - or lack of – as a vessel.



*Image 12: A laser scan of the logboat*

For the first time, prehistorians, nautical archaeologists and lay people alike can read about the story of one of Britain's oldest crafts, and the great challenges it faced on its way to becoming one of Poole Museum's greatest exhibits. The book is available through Archaeopress or through MAST's [website](#).

## British Antarctic Territory – Headline Strategy

MAST, alongside Plymouth and Bournemouth Universities worked with the Foreign and Commonwealth Office to develop their strategy for Underwater Cultural Heritage in the British Antarctic Territory. Of utmost importance was to ensure a cohesive policy that it is in accordance to the Annex of the UN Convention of Underwater Cultural Heritage 2001, to understand the significance of these heritage sites and that management plans are in place.

The document is available [here](#) on MAST's website.

## Tankfest!

Thanks to the work of Bournemouth University, its students, Mark Dunkley of Historic England, Southsea BSAC and MAST, seven Duplex Drive Valentine tanks were officially designated this year. Bournemouth University and MAST took a stand at Tankfest at the Tank Museum this summer where BU students trialed a new virtual experience with the National Centre of Computer Animation to better explore the tanks without getting wet.



Image 13: a screenshot of BU's virtual experience



Images 14 & 15: John Pearson with his restored Valentine tank at Tankfest and Tom Cousins, Bournemouth University with a fully dressed diver dummy

## Portsmouth Dockyard Heritage Pontoon

We were commissioned by the Portsmouth Naval Base Property Trust to undertake a heritage statement and impact assessment detailing the heritage significance of proposed dredging areas and potential impacts of installing additional pontoons on the historic environment, and following dredging in October 2018 at the Heritage Pontoon, submit recommendations.

Nothing of great significance was found, but the numerous Victorian and 20<sup>th</sup> century artefacts recovered can be directly linked to 19<sup>th</sup> and 20<sup>th</sup> century maritime and naval activity in the area of the dockyard. Although generally of low archaeological significance, the assemblage was distinctive, and useful in characterising the nature of the material culture such sites may be expected to yield, even in areas that may have been subjected to regular dredging.



*Image 16: Gudgeon and remains of a rudder*



*Image 17: A ship's ladder*

## Brunei divers to become BAD

We are delighted to welcome [PoniDivers](#) in Brunei as the latest to complete the MAST Basic Archaeological Diver and Train-the-Trainer courses. Get in touch if you're planning to head to Brunei and fancy doing the BAD course in some clear, warm waters.

The BAD course is a two day, three-dive course, a no fuss introduction to the basics of maritime archaeology using simple recording techniques with little more than a tape measure and a camera. The introduction to the basics also includes a lecture on the background to the discipline and the laws governing divers. Please ask us for details.

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