

# Dredged Up

from the past

Spring 2013

Archaeology Finds Reporting Service Newsletter

## Protocol Update

Welcome to Issue 12 of Dredged Up, the newsletter of the BMAPA / TCE / EH Protocol Implementation Service.



*Safety day at Tarmac's Greenwich Wharf*

2013 sees the start of a new round of Protocol Awareness funding, thanks to a new tripartite funding arrangement between BMAPA, The Crown Estate and English Heritage. This means that our popular Awareness Visits will continue to be available for at least the next two years. Find out more about what these free visits involve and how to book yours on page 8.

Cannonballs are one of the most common finds reported through the Protocol. Learn more about how to identify them on page 6.

The Finds Awards for 2011-12 have been announced and are reported on page 2.

Also in this issue, discover what happens to finds once they have been reported (pages 4-5) and meet some of the specialists who analyse these finds (page 7).

### Team News

Since the last issue of Dredged Up, Angus Forshaw has left the team but has remained at Wessex Archaeology to become one of our field archaeologists. We all miss him and wish him well in his future career. The Protocol continues to be implemented by Laura Joyner with help from Vicki Lambert and Gemma Ingason. The project is managed by Euan McNeill on behalf of Wessex Archaeology.



*Euan, Laura, Vicki and Gemma*

Don't forget: If you want an awareness talk to refresh staff about the Protocol, get in touch with the team on: [protocol@wessexarch.co.uk](mailto:protocol@wessexarch.co.uk) or call 01722 326 867



## 2011-12 Finds Awards

The results of the 2011-12 Finds Awards are now in. The winners were nominated by the Implementation Service team at Wessex Archaeology and approved by Mark Russell at BMAPA and Ed Salter at English Heritage.

Over the past year, several fascinating finds have been reported and all wharves and vessels should be praised for their continued vigilance. We are delighted to announce that the 2011-12 Finds Awards go to:

**Best Attitude by a Wharf -**  
Tarmac's Greenwich Wharf

**Best Attitude by a Vessel -**  
CEMEX's *Sand Fulmar*

**Best Find -**  
Schermuly naval rocket line thrower



Site Champions at Greenwich Wharf

Tarmac's Greenwich Wharf is presented with the award for **Best Attitude by a Wharf** for the second year in a row for their extremely high-quality reporting. Their frequent and timely reports reflect great attention to detail and enthusiasm for archaeological discoveries. Both the written descriptions and photographic images provided by wharf staff are of such a high standard that they enable accurate identification of objects wherever possible.

The crew of *Sand Fulmar* are awarded **Best Attitude by a Vessel** for reporting some fascinating Palaeolithic finds this year including animal bone and a mammoth tooth. The tooth has been identified by Andy Currant at the Natural History Museum as having belonged to a *Mammuthus meridionalis*, or southern mammoth. This early species lived from 2.5 million to 1.5 million years ago and was one of the largest species of mammoth.



Mammoth Tooth -  
*Mammuthus meridionalis*



The award for **Best Find** goes to the Schermuly naval rocket line thrower discovered by Mark Hillier at Greenwich Wharf in February 2012. Designed in the 1920s by British inventor William Schermuly, this device used rocket propulsion as a means of throwing a line from shore to ship, or ship to ship. The invention was so successful that by 1929 it had become compulsory for all vessels over 500 tons to carry line throwers.

Congratulations to all the winners and keep up the good work! We hope that these awards will inspire all industry staff to get their archaeological eye in and keep reporting finds via the Protocol.



## Finds from 2012-13 so far

Lee Moses discovered this cannonball at Kendalls' New Wharf, Shoreham, amongst aggregate dredged from Licence Area 351 in the South Coast dredging region. It is of particular interest as it appears to be part of a bar shot or chain shot. The indentation on the surface indicates where it would have originally been attached to either a metal bar or chain.



Bar or chain shot were offensive weapons used to disable an enemy ship by causing damage to the sails, masts and rigging. When fired the projectile would spin on its trajectory enabling it to cause maximum damage to an enemy vessel.

Four other cannonballs have been reported since the last issue of Dredged Up. Find out how to identify cannonballs on page 6.



In August 2012, Garry Phillips discovered this electrical device at Ridham Wharf amongst aggregate dredged from the East Coast region. Firm identification has not been possible although it has been suggested that the object could be a component of an explosive device. The rubber sealing rings and small lug fittings around this device suggest that this component may have been fitted into a larger cylindrical object. In addition, a sprung retaining ring visible inside the device appears to hold a battery component in place. This object appears to be an isolated find that may have fallen or been discarded from a boat.

This microphone hand set was recovered from aggregate dredged by the *City of Westminster* in Licence Area 447, which lies in the Thames Estuary dredging region.



Andy Simpson, Curator at the Royal Air Force Museum, identified it as the type of hand set used in early marks of the Vickers Wellington bombers, allowing bomb aimers to communicate with the pilot. The Vickers Wellington was built in greater numbers than any other British bomber during World War II and was the only model to be produced for the entirety of the war. The microphone hand set is likely to have ended up on the seafloor due to a plane crash.

Find out what happens to finds that have been sent in to Wessex Archaeology on pages 4-5.



## Focus on Finds: What Happens Next?

Since 2005, over 900 finds have been reported via the Protocol. Several of these have been sent to us at Wessex Archaeology, but what happens to them next?

Read on to follow the journey of one particular find; a mammoth tooth reported in August 2010.

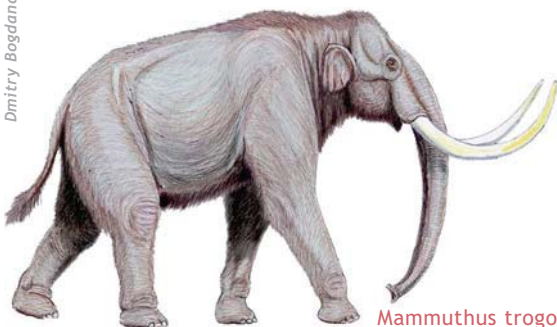
The tooth was first discovered at Tarmac's Erith Wharf amongst aggregate dredged from either the Thames region or the East Coast region. The find was reported to the Site Champion who photographed it and completed an initial record form.

These details were uploaded to the Protocol Console where they could be accessed by the Implementation Service team, who requested that the mammoth tooth be sent in to Wessex Archaeology's offices.

The tooth was then analysed by Lorrain Higbee, Zooarchaeologist at Wessex Archaeology, and Andy Currant, Curator of Fossil Mammals at the Natural History Museum. These specialists confirmed that wharf staff's identification of the object as a mammoth tooth was correct and identified it as a fragment of an upper cheek tooth. The fragment is just under half the size of the original tooth, consisting of seven plates.

The occlusal surface (biting part of the tooth) suggests a young adult animal with fairly primitive teeth, possibly *Mammuthus trogontherii*, the steppe mammoth. This species is associated with reasonably warm conditions and an open environment.

Dmitry Bogdanov



Mammuthus trogontherii



Original report photo (Tarmac)



Occlusal surface



Plates

Photos taken at Wessex Archaeology's head office



WA report

A Zooarchaeologist specialises in studying animal remains. Find out more about Lorrain's work on page 7.



With the specialist analysis in hand, we were able to write a report about the artefact, which was sent to the wharf that discovered the find, and published in the Annual Report.

The tooth is such an interesting find that it became an excellent addition to our teaching collection. It has inspired and educated countless children and adults alike through visits to schools and community groups.

It has also visited wharves and been handled by wharf staff all around the country as part of the Awareness Visits that we deliver to support the Protocol. Find out more about these visits and how to book yours on page 8.



*Tooth on a school visit*

*Tooth at Tarmac's Greenwich Wharf*





## Cannonball Identification

Some of the most interesting and informative finds reported through the Protocol have been cannonballs. Munitions such as these can provide valuable information about maritime activities including naval battles.

The majority of cannonballs take the form of solid round shot. The most effective way to identify one of these projectiles is to consider its size and weight. These features can indicate the type of gun from which it may have been fired.

For example, below is a rough guide to the identification of round shot used in 16th-century British cannon based on their size and weight:

<b>Minion</b>	3 inches	1.7 kg
<b>Saker</b>	3.5 inches	2.2-3.4 kg
<b>Demi culverin</b>	4-4.5 inches	4-5.8 kg
<b>Culverin</b>	5 inches	6.8-9 kg
<b>Demi cannon</b>	6 inches	13.6-16.3 kg

It is important to remember that cannonballs dredged from the sea may have changed from their original size and weight due to damage caused either during firing or time spent on the seafloor.



*Demi-culverin circa 1587*



*Front two demi cannon, back two culverins*

Not all cannonballs are simply round shot. Others were adapted to cause maximum damage to an enemy's ship.

**Shells** are hollow projectiles that contain an explosive filling.

**Chain shot** consists of two half-balls chained together.

**Bar shot** is similar to chain shot, but the two balls are joined by a solid bar.

Cannonballs are one of several forms of munitions found on the seafloor. Always follow company procedures on the safe treatment of munitions when they are discovered. For more information see the BMAPA / TCE guidance note 'Dealing with Munitions in Marine Sediments' (2010).

Matchlock musket butt



## Meet the Specialist

We often contact specialists to help us identify objects reported via the Protocol. Here are just two of those specialists.

### Jonathan Ferguson

Jonathan Ferguson is Curator of Firearms at the Royal Armouries Museum in Leeds. His research interests include the use and effect of firearms and their depiction in mythology, folklore and pop culture. He recently acquired a 'vampire killing kit' for the collection! Although he has worked in the museum sector for ten years, his first degree was in Archaeology (University of Exeter), and so he enjoys the opportunity that the BMAPA Protocol provides to combine these two areas of expertise.



Jonathan's vampire killing kit

The most interesting artefact he has looked at for Wessex Archaeology was a matchlock musket butt dating to the 1660s. It was found on a shipwreck site in the Thames Estuary that may be part of HMS London, an English warship that sunk in 1665.

### Lorrain Higbee

Lorrain Higbee is a Zooarchaeologist at Wessex Archaeology. She helps to identify any animal bones and teeth reported through the Protocol. Lorrain has worked in the commercial archaeological sector for over 20 years, both as a field archaeologist and specialist. She analyses animal bones recovered from sites of all periods in order to understand the farming economy of a site.



She also maintains Wessex Archaeology's reference modern collection of mammal, bird and fish bones, which she uses to help identify some of the more unusual animal bones that come her way.



## Protocol Awareness

### Can you tell your artefacts from your aggregate?

To support the BMAPA Protocol, Implementation Service staff at Wessex Archaeology offer free Awareness Visits to wharves all over the UK.

Awareness Visits are free, informative and fun! You can discover how to identify archaeological artefacts, find out how they ended up on the seafloor and handle some exciting BMAPA finds. Visits take up to one hour and can be flexible to suit the needs of your staff and work day.

If new wharf staff have joined your team or you would like a refresher training session, then get in touch to book a free visit. Email us at [protocol@wessexarch.co.uk](mailto:protocol@wessexarch.co.uk) or call 01722 326867 to find out more.

### Do you have what it takes to be a Site Champion?

Site Champions are essential for the success of the Protocol and their efforts are highly valued by the staff at Wessex Archaeology.

The Site Champion is the first point of contact when an archaeological object is identified. Their role is then to:

- Note the approximate location of the original position of the find
- Take photographs of the find
- Complete a short report about the object to be sent to the Nominated Contact
- Store the object in a suitable container.

Get in touch with the team on:  
[protocol@wessexarch.co.uk](mailto:protocol@wessexarch.co.uk)  
or call 01722 326 867



*Safety day at Tarmac's Greenwich Wharf*

### Does your wharf or vessel need a Site Champion? Why not have a go?

Don't forget you can book an Awareness Visit to get you started.

Paul Scrace and Bradley Troubridge are the Site Champions at Tarmac's Greenwich Wharf. Paul and Bradley set an excellent example to other Site Champions by compiling detailed and accurate preliminary reports and taking high-quality photographs. Their finds are stored in a display cabinet, where they can be viewed by all.



*Site Champion Paul Scrace at Tarmac's Greenwich Wharf*