

# Dredged Up

Issue 19  
Autumn 2016

Archaeology Finds Reporting Service Newsletter



Welcome to the new look of **Dredged Up**, the newsletter of the Marine Aggregate Industry Protocol for the Reporting of Finds of Archaeological Interest. Since the last newsletter there have been **47 reports** detailing a total of **71 individual finds** – a staggering effort by all participants!



'Pearl ware'  
plate fragment  
(see page 5)

IN THIS ISSUE, we hear from Peta Knott who has been very busy making Protocol Awareness Visits (right). She distributed new Protocol Awareness materials and gave staff the opportunity to handle artefacts that have previously been reported through the Protocol. Read about her experiences and insights on **page 2**.

Head to **page 3** to find out about some inventive methods that are being used both at wharves and during the researching of finds. Ed Skinner, the Nominated Contact for Tarmac Marine, discusses the use of tablets to submit finds reports while on the ground. Also, a technique from your childhood makes a comeback to help highlight text on finds.

This issue also reveals some of the interesting objects that have been found since February (**pages 4 and 5**). Given the large number of finds this is just a small taster of what was discovered, but if it whets your appetite you can read about finds as they are reported by looking at the RSS feed ([www.wessexarch.co.uk/projects/marine/bmapa/discoveries.php](http://www.wessexarch.co.uk/projects/marine/bmapa/discoveries.php)).

An interesting article on **pages 6 and 7** emphasises the significance of photography when



documenting munitions, both at the wharf end and during the interpretation of finds at Wessex Archaeology. In particular, a special technique that illuminates marks on a shell case – literally.

Finally in this issue, we look at how the Marine Aggregate Industry Protocol has now influenced heritage protection outside of industry – within the public domain. The launch of the Marine Antiquities Scheme is described on the **back page** by Maddy Fowler who is assisting with the Scheme, and who also is the newest member of the Marine Aggregate Industry Implementation Team here at Wessex Archaeology.

Book your Protocol Awareness Visit today  
email us at **protocol@wessexarch.co.uk** or call us on **01722 326867**

# Out and About at the Wharves

THE PROTOCOL IMPLEMENTATION TEAM has spent much of April, May and June visiting wharves to present the new archaeological awareness materials and to see how you are all doing. The presentations only take about 20 minutes, but we usually end up staying longer to answer all your questions and to give everyone time to handle the artefacts we bring along. It has been very encouraging to see the enthusiasm that is out there for reporting finds. All in all, we spoke to 66 of you at 17 different wharves! There were new faces, as well as old hands who proudly remembered making some of the finds shown in the new materials.

On a number of the visits the **Deputy Receiver of Wreck (RoW)**, Heloise Warner (see below), talked about the legal requirements, under the **Merchant Shipping Act 1995**, to report any wreck material to the **RoW** within 28 days. Primarily, this is so that the legal owner of any item can be identified, although for many finds recovered from dredging this may not be possible. However, all finds are added to the droit database which contributes to the increasing knowledge of our seabed history. Once a find is reported to the Protocol Implementation Team, we streamline the rest of the reporting process by completing the RoW form, so that the **Nominated Contact** can just sign and send it, and you can get on with your regular work. You can see how important it is, therefore, that you report finds swiftly, so that we can inform the **RoW** within the 28 days.



We try to visit each wharf every two years so that new staff can be made aware of the procedures of the Protocol for the Reporting of Finds of Archaeological Interest, and to provide a reminder for long-term staff. Remember, if you would like an **Awareness Visit**, just contact us at [protocol@wessexarch.co.uk](mailto:protocol@wessexarch.co.uk). Awareness Visits made so far this year include:



It is actually a requirement of The Crown Estate production agreement for licensees to record and report any munitions recovered as a consequence of marine aggregate operations. Of course it is very important that you first observe your safety procedures for dealing with munitions, but we would really appreciate you reporting the find, even if it is just forwarding the EOI report from when it was disposed of. Please report all munitions, as these help us build up an understanding of battles that have been fought, the munitions that have been dumped, and how they are distributed as relics of history on the seabed.

- Brett Aggregates**  
Cliffe Wharf, Cliffe  
Robin's Wharf, Northfleet
- CEMEX**  
Angerstein Wharf, New Charlton  
Crown Wharf, Southampton  
Halls Wharf, Southwick
- Hanson**  
Dagenham Dock, Dagenham  
East Bank Rd, Newport  
The Weighbridge, North Greenwich  
Roath Dock Rd, Cardiff
- Isle of Wight Aggregates**  
Kingston Wharf, Isle of Wight  
Medina Wharf, Isle of Wight
- Kendalls**  
Kendalls Wharf, Portsmouth  
New Wharf, Shoreham
- Tarmac**  
Bedhampton Quay, Havant  
Marchwood, Southampton  
Shoreham Wharf, Portslade  
Thurrock Wharf, West Thurrock



## It's not just Photographs, but Child's Play

DURING MARCH, one of the finds reported through the Marine Aggregate Industry Protocol was a **small brass plaque**, found by Aaron Harrigan from Tarmac. Sometimes small artefacts such as these can provide valuable information, such as the period, type and size of vessel, and its cargo, as well as assisting in the identification of unknown wreck sites.

Due to the underwater conditions, sea life and corrosion has affected the plaque's metal surface and the engraved lettering. However, there is a simple yet effective technique you can use to help reveal this additional information – just as we use it at Wessex Archaeology – the good old-fashioned pencil rubbing. It will probably take you back to your childhood – we all did these at school – but now, in your adult life, you can revive a skill you never thought you would use again.

We recommend that wet objects stay wet, but if an object is already dry, this is an easy way of recording it in detail, and one that we would encourage those in the industry to try. The plaque shown here was collected



from Tarmac's headquarters for closer inspection, and after just a minute the pencil rubbing was done and the information clearly revealed. As you can see from the photographs it's not simply child's play anymore, but can be highly effective for examining and interpreting artefacts.

Read about this artefact (Tarmac\_0655) in the annual report later in the year.

## Efficiency in Reporting Finds with Tablets

NO LONGER do Tarmac **Site Champions** have to worry about finding a paper copy of the **Discovery Form** when they report a find – they are using technology to streamline their workload. All Tarmac Marine wharves now have a tablet which they can use to report, amongst other things, cargo quality reports, munition reports and archaeological finds. They have customised the Archaeological Protocol **Discovery Form** so that it can be completed on the tablet. **Site Champions** just click through the options, fill in the blanks and can even use the tablet's camera to instantly record the find and then add the images to the report. All the information is collated into a PDF report which Tarmac's **Nominated Contact** uploads to the Protocol console and then the Protocol Implementation Team takes over the rest of the reporting process.

Tarmac recognises that not everyone is happy with using a tablet for work, and so wharves have the option to use traditional recording methods or the tablet, and the split is presently about 50/50. However those using the tablet find it very user-friendly. Tarmac Marine Resources Coordinator and Nominated Contact, Ed Skinner says:

*Using the tablets has helped improve the buy-in to the Protocol from the teams on the wharves and ships by making the reporting process even easier.*



Tarmac also records controlled disposals of munitions through the tablets and these reports can now be easily forwarded to Wessex Archaeology to be included in the reporting of archaeological finds.

It is great to see dredging companies using the Archaeological Protocol resources and adapting them to suit their needs while still retaining the essential information that helps us research the finds.

# Recent Finds: Bells, Balls, Bones, Flying Knives and a Mystery Object to solve

IT IS TIME to take a look at some of the objects that have been dredged up and reported through the Marine Aggregate Industry Protocol since February 2016. Wharf and vessel staff have sent in 47 reports already in this period – one of the Protocol's busiest to date. There have been some interesting and unusual finds. Keep them coming!

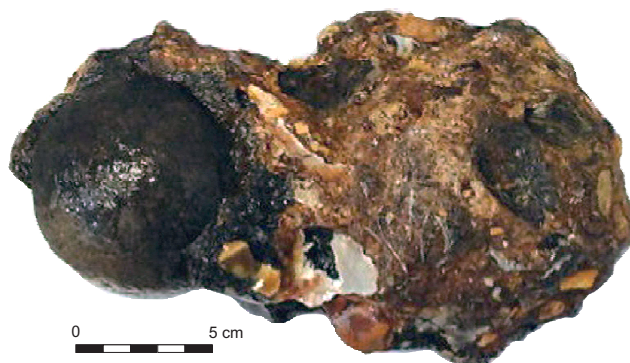
## Mystery Object



Close-up detail of an object found by Mr Stonehouse at Greenwich Wharf. Can you guess what it is? The answer will be revealed next page.

## Cannonballs

Guns and ammunition are plentiful on the seabed, and although these are relatively frequent finds, each discovery can provide new information – about the time periods they come from, and the way people used to live, and die, at sea. Since February this year **16 cannonballs, two bullets, one bullet case, five spent bullets, one shell, two shell cases, one shell base, two cartridge cases and a musket ball or grapeshot** have been reported through the Protocol.



## Bell

Mr Sait, from Southampton Wharf, with his sharp eyes (or keen ears) spotted a **ship's bell** (Tarmac\_0683) (right). It is not particularly large, measuring just 90 mm in diameter, which means it is unlikely to have been the main bell aboard whichever ship it may



have come from, but most likely a hand bell. However, it does give a fitting reminder as to the use of bells aboard ships.

An early example of a ship's bell found in the UK comes from the famous *Mary Rose* wreck. Ships such as the *Mary Rose*, which sank on 19 July 1545, would have used bells for a number of purposes, such as telling the time, marking changes in shifts, and navigating in foggy conditions. Often the larger bells bear the name and date of the ship. Ships may also have had small bells, like the one found by Mr Sait, for musical events and entertainment.

At one location, an unusual **collection of cannonballs** was discovered, by Mr Jerromes at Southampton Wharf (Tarmac\_0672) (see example above). The 11 cannonballs are all '4-pounders', meaning that each weighs 4 lb, and would have been fired from a relatively small cannon. Bearing in mind that HMS *Victory* (1765), Nelson's flagship and the 1st rate ship of the line, used to carry cannons capable of firing 32 lb cannonballs, the 4 lb shot could be considered small.

The 4-pounder cannons were often called minions, probably based on the French word for 'cute'. Not so cute, however, if you were on the receiving end, and it wasn't so much the 4-pounder cannonballs that killed as the splinters they caused. Such cannons were commonly used by the army and the navy, as well as by small merchant ships who used them to protect cargos. They are dated to around the 16th and 17th centuries. A significant feature of these 11 cannonballs is that some are in excellent condition. They may have been in a pile together on the seabed, with those on the inside of the pile being protected by those on the outside.





### Bones

Thanks to Mr Pettitt, from Brighton Wharf, for reporting a **bone fragment** (Cemex\_0659) (above). It looks like it could be a human bone, but is it? Not this time. This bone is probably from a cow or bull. Cattle bones, based on their size, are often mistaken for human bones, but the shafts of cattle tibiae are significantly more robust. Animals were taken to sea for a number of reasons: to transport them or to feed people aboard. This bone doesn't show any signs of butchery marks, which suggests the cow or bull could either have been washed overboard while in transit, or the bone could have been washed out to sea from the mainland.

### Knives and plates

The cattle bone leads us to human tools for eating, and another find that has some mystery to it – a **British Airways table knife** (Tarmac\_0687) (below). Thank you again to Mr Sait at Southampton Wharf for this out-of-place object. The stainless steel knife is 150 mm long with a typical blunt-tipped design used on aeroplanes. It has been stamped SOLA 981 BRITISH AIRWAYS, Sola being a European company that distributes flatware to cruise ships and airlines.



So how did a British Airways knife get into the sea? British Airways, which was established in 1974, has no recorded crashes in the English Channel, and the closest crash site was a British Airways helicopter crash in the Isles of Scilly, Cornwall. Helicopter flights no longer run to the islands, but even then the flights were short and didn't serve in-flight meals. It seems a fair assumption that someone might have stolen the knife from a plane flight, as a keepsake or souvenir, and that it somehow went to sea and was lost or thrown overboard.

While we are on the subject of fighting irons (knives and forks) and eating food we must mention another small find that hints at a tantalising slice of history. This is a



pottery sherd from a **'pearl ware' plate**, found by Mr Sait again (Tarmac\_0691) (above). It shows the logo of the European and American Steam Shipping Company (EASSC), which only operated from 1857–1859 before running out of money and going out of business. A point of interest here is that EASSC operated out of Southampton, which is close to where the find was made. The plate was manufactured by Thomas Dimmock and Co. from Stoke-on-Trent, a company in business from 1828–1859.

### Mystery Object Revealed!

We did some research and we now know that it is the balance arm of a **'sack scale'** (right) dating to around the 19th century (Tarmac\_0649). Such scales were used for weighing sacks when vessels were loaded and unloaded. The balance arm, which is made of wrought iron, would have been suspended from a beam by the hole at the hook end, while the sack to be weighed would hang from the hook, and balanced by a set of weights suspended from the hole at the other end. Given the importance of Britain's trade in materials by the 19th century, tools such as this sack scale would have been crucial to ensure fair weights were used.



**We would like to thank everyone involved in the Protocol for their efforts, and we are all looking forward to the rest of the year's finds.**

# Photographing and Recording Munitions: Getting the most from your discovery

MANY OF THE FINDS reported through the Marine Aggregate Industry Protocol are wartime munitions – spent shell casings of all sizes, bullet tips and even, recently, part of a buoyant sea mine. This is not surprising given that most of our marine aggregate comes from areas that were ‘hot spots’ during both World Wars.

Even though there are so many munitions reported, that doesn’t make them any less interesting, and they hold a surprising amount of information which helps us paint the bigger picture of wartime Britain and what happened in the waters around our coast. This brief guide about the successful recording of munitions is to help those working in the marine aggregate industry, as well as us in the Protocol Implementation Service, to learn as much as possible from the finds that are being reported.

**But remember, company Health & Safety policies and established operational procedures should always take priority over archaeological reporting. Any attempts to move or photograph potential munitions should only take place once it has been determined as safe to do so.**



*Photographing the object*

The date the shell was made is the most obvious information that can be ascertained, helping to differentiate between the First and Second World Wars.

Munitions come in all sizes, from a small 9 mm handgun casing up to and over the 5" (12.7 cm) diameter mark. No matter the size, these hold the majority of the information that is available to us. Even the most limited of markings can provide more information than first thought.

Good quality photography is very important for an accurate interpretation of bullets and shell casings. Shell casings hold all the information, including size, dates, maker, nation, lot number, whether it was refilled and type of gun, and clear photographs provide the best information. While it’s not a photography contest, the clearer and more detailed your photographs are, the better the interpretation can be.



*Photographing different views of the object*

- Photographing with a scale is invaluable to the identification, and your efficiency in using the scale, and appropriate camera angles, makes all the difference.
- Take care that the side of the bullet or shell casing is in line with the scale’s ‘zero’. This is important for the accurate measurement of the diameter and length.
- Make sure that the camera is directly over the object; if it is angled to one side it can very easily misrepresent the size of the object.





- The primer is important – on the base this holds stamps and dates, but also on the inside of the shell it is useful in identification. They are often specific to the type of round, and so prove conclusively the type of weapon it was used in.

- Be sure to photograph the base. While bullets hold no written details, information such as whether or not it was a tracer round can be established.
- And don't forget a photograph of the shell in its entirety, this not only helps with scaling, but the shape of the shell casing itself can be used for identification.
- Using the camera's flash in the appropriate way can reveal inscriptions which, due to their extended period in the sea, can be too corroded, or encrusted with sea life, to read easily.
- There is no limit to the number of photos that you can submit!

No matter the state of the munitions you find – perfect, encrusted with sea life, or exploded as part of a controlled detonation – please continue to report them all using the techniques discussed above, and we can continue to learn as much as possible from your discoveries.

Original condition

After gentle cleaning

The latest **shell case** (Tarmac\_0670) we collected from Tarmac's headquarters was recorded at Wessex Archaeology's Salisbury Office using a special photographic technique, **Polynomial Textural Mapping (PTM)**, in order to reveal its markings. PTM involves taking multiple photographs of the object with a flash. These are then processed in a program that fits the photographs together. The results enable us to move a light source around the artefact and manipulate shadows in order to make the inscriptions much more easily read.

To the left is a photograph of the shell case's original condition, while on the right a snapshot taken from the PTM model shows it after some gentle cleaning. Additional PTM lighting manipulations to highlight inscriptions are rendered in grey tones. They include the date of manufacture and filling date for the primer of August then September 1941. We also know it is a British shell produced by Vickers, fired from a 5" naval gun, and that it came from lot number 3600. Prior to the PTM technique we could only speculate on its provenance.

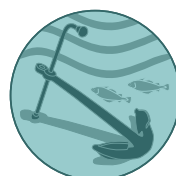
# The Marine Antiquities Scheme: A Protocol for the Public

FOLLOWING THE SUCCESS of industry-based Protocols, such as the Offshore Renewables Protocol, the Fishing Industry Protocol and, of course, the Marine Aggregate Industry Protocol, a new type of Protocol was launched in July 2016.

The **Marine Antiquities Scheme (MAS)**, supported by The Crown Estate, the Portable Antiquities Scheme (a land-based reporting process) and Wessex Archaeology, encourages the voluntary recording of archaeological objects and sites found by marine users in England and Wales. While the aim of the MAS is similar to that of the Marine Aggregate Industry Protocol – protecting our submerged heritage – there are a few differences.

Unlike the Protocol, where finds are usually discovered after they have been recovered, the MAS allows for the recording of objects or sites which have been discovered by underwater users, such as recreational divers, and left in place on the seabed. Nonetheless recoveries are often made by accident, for example while fishing, so it is important that these finds are also recorded before all knowledge of them is potentially lost for ever.

Rather than a process of **Site Champions** and **Nominated Contacts**, the MAS operates primarily through an app on your mobile device. The **MAS app** is easy to use, enabling finds to be recorded in a matter of minutes. Information required includes the date of find and name of finder, location of the find, a



MARINE  
ANTIQUITIES  
SCHEME



description and photographs. To download the MAS app, please visit your iOS or Android app store.

An alternative to the MAS app is an online recording form via the website: **marinefinds.org.uk**. The website is also where you can find a database listing all of the finds made through the scheme so far. One similarity with the Marine Aggregate Industry Protocol is that all wreck related finds still need to be reported to the **Receiver of Wreck** within 28 days of discovery.

The MAS contributes to the continued protection and improvement of knowledge about our underwater cultural heritage. While vessel and wharf staff should continue to report finds made at work through the Protocol, perhaps if you fish or dive as a hobby you too could record your discoveries through the MAS.

For more information on the Protocol,  
how to book visits or to request copies of any awareness material  
please contact Wessex Archaeology  
Email: **protocol@wessex.co.uk** Tel: **01722 326 867**  
Or visit Wessex Archaeology's Protocol website  
**www.wessexarch.co.uk/projects/marine/bmapa**

## Protocol

for the Reporting of Finds of Archaeological Interest