Dredged Up

Archaeology Finds Reporting Service Newsletter

Issue 23
Autumn 2018

Welcome to Issue 23 of ***Dredged Up***; the newsletter of the Marine Aggregate Industry Archaeological Protocol. Since the last newsletter in April 2018, **61 finds** have been reported through 58 reports and nine wharves have been visited.

Woolly rhino tooth (see page 3)

Thank you to the wharf and vessel staff, **Site Champions** and **Nominated Contacts** for all the continued support in making the Protocol a continued success. The level of reporting is at the highest standard it's ever been.

Pages 2 and 3 showcase a roundup of the selection of finds reported since the last issue.

We've had several pieces of ordnance reported this year. **Pages 4 and 5** are a write up of the correct procedure for reporting ordnance from the Executive Director of Planning, Mineral Resources and BMAPA, Mark Russell.

We are celebrating all the brilliant wharves who have display cabinets on **page 6**. Have a look for some inspiration.

Page 7 features archaeological monitoring at Frindsbury wharf and Northfleet wharf.

Do you know who your **Site Champion** is? **Page 8** gives us a look at some of those involved in the reporting process and how important they are.

Social Media

If you would like to keep up to date with the Protocol, please give our **Facebook page** a like.

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

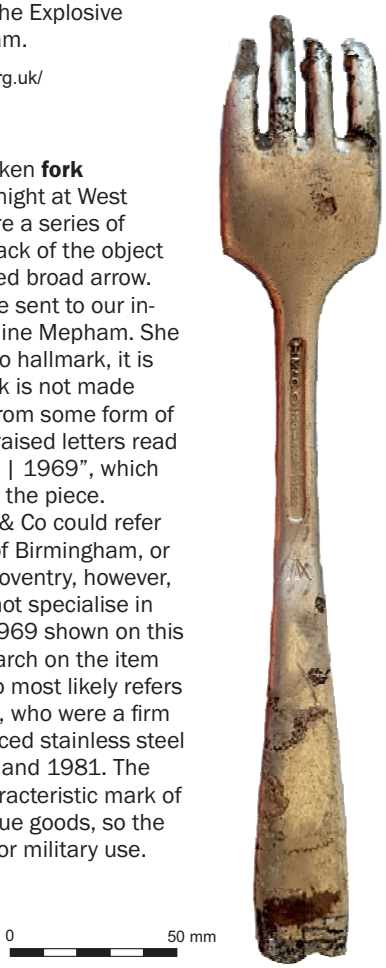
Round up of finds since the Spring Issue

CEMEX_0825 is a **hand grenade**, measuring approximately 105 mm by 60 mm, discovered in Licence Area 137 in the South Coast dredging region. Steve Bomber discovered it on the magnet at Leamouth Wharf. It has been heavily corroded in the marine environment and is missing one half, but the classic pineapple shape of a typical grenade is still visible. Images of the find were sent to Trevor Parker of the Ordnance Society*. He said that the find looks like a British hand grenade which has split open and is probably completely inert. The marks on the surface of the grenade are quite common on First World War grenades and are most likely batch numbers. Based on the shape of the remains of the spoon pin retainer towards the top of the grenade, it has been determined that this is a No. 36 or No. 36M grenade, known as the Mill's bomb, which was designed and waterproofed for use in the hot climate of Mesopotamia in 1917 but remained in production for many years. The find was reported to the police and removed from site by the Explosive Ordnance Disposal team.

CEMEX_0825

* https://ordnancesociety.org.uk/

Tarmac_0865 is a broken **fork** discovered by David Knight at West Cowes Wharf. There are a series of raised letters on the back of the object along with an impressed broad arrow. Images of the find were sent to our in-house specialist, Lorraine Mepham. She said that, as there is no hallmark, it is presumed that this fork is not made from silver but made from some form of alloy, and plated. The raised letters read “HM & Co | 120-6108 | 1969”, which gives an exact date for the piece. Lorraine said that HM & Co could refer to H Mackenzie & Co of Birmingham, or to H Mander & Co of Coventry, however, these companies did not specialise in cutlery and pre-date 1969 shown on this example. Further research on the item suggests that HM & Co most likely refers to Harris Miller and Co, who were a firm in Sheffield that produced stainless steel cutlery between 1966 and 1981. The broad arrow is the characteristic mark of British government issue goods, so the fork could have been for military use.



Tarmac_0865

This **stone cannonball** (**Brett_0879**) was discovered by Matt Reardon at Cliffe Wharf on the oversize grid. The cannonball measures approximately 160 mm in diameter and has been carved from stone. Stone cannonballs were commonly used during the medieval period in addition to iron or lead. Preference changed to iron shot in the 1630s as the cost of manufacturing reduced. The size of the cannonball is particularly large, at 160 mm or 6.3 inches in diameter, which equates to roughly a 36-pounder cannon. Stone cannonballs were hand carved from blocks, often using a small pick or a hammer and chisel. This would create some variety in the shape; often the diameter varies slightly as forming a perfect sphere is extremely difficult and time consuming. Gauges were used during the carving process to ensure that the desired size was made. These were usually wooden paddles with a pre-cut hole which would slot over the ball.

Brett_0879

Tarmac_0884 is a **plate fragment** discovered by Mia Bartlett at Southampton Wharf after being dredged from Licence Area 500/3 in the South Coast dredging region. It has a lion and crown on its front along with the words “STEAMSHIP COMPANY LTD”. On the reverse is a maker’s mark with the words “MINTONS” “EST 1793” “ENGLAND”. There appears to be an embossed production number on the back of the plate as well, which reads “1 MINTONS 5 – 25”. After research was conducted on both the stamps present on the plate, it has been determined that this belongs to The Cunard Steamship Company Ltd. The Cunard Line is a British-American cruise line based at Carnival House at Southampton, founded in 1840 and still in existence today. The Minton stamp on the reverse refers to a major ceramics manufacturing company, created by Thomas Minton, who established his pottery factory in Stoke-upon-Trent in 1793, producing earthenware. As the print mark changed over the years, it is possible to date the pottery based on this. This new version of the standard Minton print mark had a different crown and the globe now within laurel leaves. The version of the mark on this plate was in use from 1912 to 1950 with the earlier versions having ENGLAND printed below which this one does.


Tarmac_0884 (no scale provided)


Detail of maker’s mark

CEMEX_0853

An **aircraft fragment** (**CEMEX_0853**) was discovered at Angerstein Wharf by Martin Keeble, which measures 400 mm in length and 110 mm in width. There are a series of rivets still running along the length of the fragment connecting to other visible pieces of the same aluminium material. Images of the find were sent to Steve Vizard, an external specialist who established that the fragment appears to be from an aircraft crash site, as indicated by the deformed nature of the piece. He said that based on the rivets, it appears to belong to a German aircraft. Another clue is the small dimple visible on the top of the rivets, a distinctive feature not found on British aircraft.

DEME_0851

DEME_0851 is a **fossilised tooth** discovered in Licence Area 228 in the East Coast dredging region, approximately 16.5 km south-east of Great Yarmouth. C. Matton discovered it at Flushing wharf. This complete fossilised animal tooth measures 670 mm in length and the roots of the tooth are still present. Images of the find were sent to Lorrain Higbee, an animal remains expert at Wessex Archaeology, who determined that the find is a molar from a woolly rhino. She said that they are quite distinctive teeth and was fairly confident with her identification. The woolly rhinoceros or *Coelodonta antiquitatis* was a large animal exceeding 2 tonnes, adapted to feeding on low-growing herbaceous vegetation in a dry climate with minimal snowfall. The large bulk of the body and short legs, lacking spreading hooves or pads, indicate an animal unable to travel well in deep snow. The woolly rhinoceros has been widely regarded as having been a 'fellow traveller' of the woolly mammoth, *Mammuthus primigenius*, as their remains commonly occur together in deposits. Woolly rhinoceroses disappeared from Britain around 35,000 years ago.

Hanson_0846

Hanson_0846 is a **pair of lead shots** that was discovered aboard *Arco Beck* in Licence Area 372/1. This pair of lead shots measure 1.5 inches (38 mm) in diameter each. Images of the find were sent to Jonathan Ferguson, an ammunitions expert from the Royal Armouries Museum, and to our in-house specialist Bob Davis. Jonathon said that if these two objects are projectiles, and are indeed from a maritime context, they would likely have been fired by something like a swivel gun; a small artillery piece mounted on the gunwales of a ship. Alternatively, they could be shot from a land-based weapon of some kind that have simply been lost at sea as cargo or fired out to sea. Bob said they look like a pair of 'round shot' or 'cannister/grape shot'. Small calibre cannons existed with a range of different sizes and dated to a series of different years which makes dating the objects difficult. They were possibly fired as a single shot or as a grape shot canister where several grape shots were packed in to stands and fired as a package. Based on the grape shots fired at the Battle of Lundy's Lane, 1812, a 1.5 inch diameter would mean that the shots are British and have a mould mark. This could mean that these examples are British and possibly date to the early 19th century.

CEMEX_0825

This **door latch** (**Tarmac_0844**) was discovered by Gary Phillips at Ridham Wharf, measuring 130 mm by 140 mm. One side of the latch has a brass door knob while the other has a handle and the remains of a mechanism. The three remaining screw holes indicate the latch was affixed to a door at one stage. Bob Davis, a specialist at Wessex Archaeology, said that this door latch looks to be from the 18th century as this type of latch was popular during this period. As it is difficult to ascertain whether this object derives from a terrestrial or maritime context, it is difficult to say how it may have entered the marine environment. It is possible that the door latch was attached to a wooden door when it entered the marine environment and the wood has since eroded away, or the item was already broken when it entered the environment and was disposed of at sea.

Munitions and Marine Aggregates

It has been estimated that, during the Second World War alone, more than 80,000 tonnes of ordnance were dropped on Britain. The damage to factories, homes and, of course, to life was enormous. More munitions were fired in defence of our country – from land, sea and air. But not all the munitions exploded and many ended up on the seabed where they lie to this day, still potentially lethal.

Bombs dropped from above are just part of a diverse collection of seabed munitions from different eras and sources. In some cases, they ended there when aircraft crashed or when ships sank, and some were disposed of at sea once hostilities had ended that inevitably poses a potential risk to anyone who works in the marine aggregate sector – whether as crew onboard a dredger or at a wharf processing marine sand and gravel when it comes ashore.

Any munitions or ordnance associated with marine aggregates that are discovered must be reported in accordance with the principles set out in the guidance *Dealing with munitions in marine sediments* (2010), produced by the **British Marine Aggregate Producers Association** (BMAPA), the **Mineral Products Association** (MPA) and **The Crown Estate** (TCE), in consultation with the police, **Health & Safety Executive** (HSE), **Maritime & Coastguard Agency** (MCA) and **Joint Services Explosive Ordnance Disposal** (JSEOD). The principles contained within this guidance should be embedded within company policies, practices and procedures for every site and vessel where there is a potential risk of munitions.

It is important to remember that munitions have been primarily designed to kill and maim, and this potential remains even after items have been submerged for several decades.

One potentially fatal misconception is that any item of ordnance that has not detonated after being fired can be considered a 'dud'. The fact that an item has been disturbed through the act of dredging without anything untoward happening does not mean that it can be considered safe. There is no such thing as a 'dud'. Munitions can be classified as either '**inert**', '**live**' or '**blind**'. An item that has been fired and failed to function is considered '**blind**' and is therefore potentially highly dangerous.

The risk associated with many of the items recovered through marine aggregate operations is best reflected by the fact that attending military Explosive Ordnance Disposal (EOD) teams will often decide to carry out controlled explosions on site to render items safe, rather than risk transporting them.

Against this background, objects that are suspected to be potential munitions must **NEVER** be touched or moved by employees or contractors unless they can be positively identified as being '**inert**' (i.e. no explosive content) by a Level 1 trained member of staff or following advice provided by Level 2 qualified EOD professionals.

Tarmac_0841

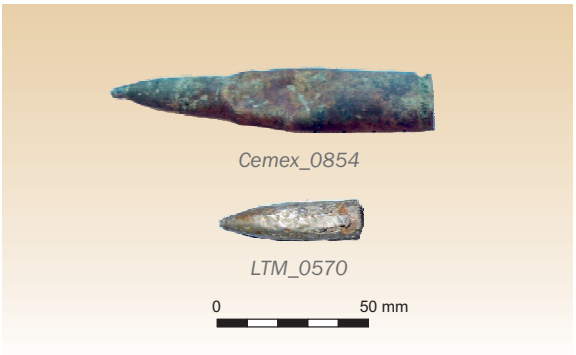
0 25 mm

Cemex_0855

0 100 mm

Munitions and ordnance (and their component parts) come in a wide variety of shapes and sizes. Consequently, any item that cannot be positively identified as being '**inert**' should be considered dangerous and only ever be handled or moved by qualified EOD professionals. In this sense, it is important to stress that 'suitably qualified' does not simply mean someone who may have served in the armed forces. It means an individual who has a particular level of competence (described as Level 2 trained in the guidance), having successfully completed the Advanced EOD Course 801 at the Defence Explosive Ordnance Disposal School, or Ammunition Technical Officer/ Ammunition Technician Course at the Army School of Ammunition.

There was a historic incident where an attending police officer with previous military experience incorrectly identified discovered ordnance as being 'safe' and instructed company staff to handle and move them. On attendance, the military EOD team subsequently concluded that the same items were too dangerous to move, and carried out a controlled explosion where they were placed. When it comes to munitions and ordnance, the old saying '*a little bit of knowledge can be dangerous*' rings particularly true.



Cemex_0854

LTM_0570

0 50 mm

It is a criminal offence to remove munitions from a site. It is also important to remember that it is a criminal offence to retain munitions on site for more than 24 hours without that site being suitably licensed. Any munition finds must be reported using the company policies, practices and procedures that should be in place for every site and vessel where this potential risk exists.

The requirement to report the discovery of munitions through established company procedures overrides any obligation to report or record them as part of the archaeology reporting protocol that is in place. Munitions finds should only be photographed and reported through the **Marine Aggerate Industry Archaeological Protocol** once suitably qualified EOD professionals have determined that it is safe to do so.

Mark Russell
Executive Director – Planning,
Mineral Resources & BMAPA

Download *Dealing with Munitions in Marine Sediments* (2010) at
http://www.bmapa.org/documents/Dealing-with-munitions-in-marine-sediments.pdf

Celebrating Cabinet Collections

We're celebrating all the great cabinets that we've seen on our wharf visits! We love seeing all the artefacts that everyone has found over the years, stored in cabinets of all shapes and sizes, as it means they are cared for and make an interesting talking point for any visitors that come to the wharf. Some wharves have gone the extra mile to label the finds with the unique ID number that each find is given when it is reported through the Protocol so that they can refer back to it. One wharf even had a binder with all the wharf reports in it so that any visitors or even new staff could look at the number on the label and find the correct report for the find to learn more about its history.

When a discovery is made on the wharf, please try to keep it in a cool and dark place out of direct sunlight. If the find is wet, keep it wet by immersing it in fresh (not salt) water. If the find has dried out on the wharf, re-wetting tends not to work very well. If the dried find is made of metal, then the best thing is to keep it dry and out of direct heat. With wooden finds and bone, they need to be kept it in a mid-range stable environment as it is the changes in environment that cause the most damage.

Old traditions included varnishing finds in order to try and preserve them. Under no circumstances should this be done as it does not slow down the deterioration process – it merely means that deterioration happens from the inside out.

So whether your wharf has a free-standing cabinet, a table top one or you have a lovely windowsill display, thank you for all your enthusiasm in preserving and promoting the finds.

Greenwich finds display case (above) and a close-up of its shelves

Hanson Frindsbury finds display case

Mammoth teeth and worked stones

Metal objects including cannon balls

Archaeological Monitoring at Wharves

As well as the **Marine Aggregate Industry Archaeological Protocol** and the wharf visits associated with it, we also visit CEMEX Northfleet wharf and Hanson Frindsbury wharf a few times a year to carry out a programme of two-day archaeological operational wharf monitoring. A team of two or three archaeologists monitor activity at the receiving wharf.

Why We Do This
During 2007–2008, Palaeolithic artefacts, including hand axes, flakes and cores, as well as a series of bones (woolly mammoth, woolly rhino, bison, reindeer and horse), were discovered by Mr Jan Meulmeester in stockpiles of gravel at SBV Flushing Wharf, Netherlands, and reported through the Protocol. The finds were dredged from Licence Area 240, which lies to the east of Licence Area 511. Read more about this discovery in the 2007–2008 annual report (see the weblink below).

As a result of these significant finds, work in and around Licence Area 240 involved mapping the offshore extents of the Palaeo-Yare, highlighting the potential of the southern North Sea to contain archaeological remains of national and international significance belonging to submerged prehistoric landscapes.

Based on this work, Historic England requested that programmes of archaeological monitoring of dredging activity in the Lowestoft short-term licence areas be implemented.

Frindsbury wharf
Archaeologists sit in the tower over the conveyer belt to look for archaeological material. If any is present, a metallic object is dropped on the conveyer to trigger the magnet so that the find can be retrieved. Finds often include worked flints.

Northfleet wharf
Over the two days, the archaeologists sift through the fraction of cargo greater than 20 mm by hand to ensure that there is no archaeological material present. The finds usually include animal bone and teeth belonging to large mammals such as mammoth and flints that have been worked (as seen below).

Both wharves are always extremely welcoming and accommodating and we'd like to thank them profusely for their time

The 2007–2008 annual report available at
https://www.wessexarch.co.uk/sites/default/files/field_file/Protocol_annual_report_2007_2008.pdf

Do you know who your Site Champion is?

Our **Site Champions** play a vital role in keeping the **Marine Aggregate Industry Archaeological Protocol** running smoothly.

Each wharf and each vessel should have a nominated **Site Champion** who is known to all the staff and the crew. The **Site Champion** should be your first point of contact when any archaeological material is discovered at the wharf or on the vessel. they are responsible for filling out the reporting form that accompanies the find, detailing such things as date found, finder and from which licence area the object was dredged. The **Site Champions** are also responsible for ensuring that high quality photographs of the find are taken, with scales, and sent to the correct people along with the discoveries form.

A **Site Champion** may pass all the relevant forms, information and photographs on to the **Nominated Contact** for that particular company or they may choose to upload the information themselves through the secure console that is managed by Wessex Archaeology. We send the **Wharf Report** to the **Site Champion** and **Nominated Contact** when the find has been processed through the system so that everyone at the wharf can find out more about the reported object.

From left to right – Top: David Locke (Angerstein), Barry Gould (Erith), David Knight (Isle of Wight), Benn Warren (Ipswich), Steve Bomber (Leamouth); Bottom: Adam Johnson (Northfleet), Garry Philips (Ridham), Andy Roberts (Shoreham), Tommy Merchant (Thurrock)

How to become a Site Champion

If your wharf or vessel does not currently have a **Site Champion** and you have an interest in filling the position, then please let your wharf manager or **Nominated Contact** know and get in touch with us by emailing **protocol@wessexarch.co.uk** or call **01722 326 867**.

Some of our **Site Champions** have approached members of the **Protocol Implementation Team** during wharf visits or have naturally taken on the role as they have an interest in history or archaeology. If you think you would suit the role, you will receive one-on-one training and an introduction to the reporting console either at the wharf, over the phone or via email with one of the team.

We truly appreciate each and every one of our champions, so if you think you have what it takes to join this amazing team then please let us know.

For more information on the Protocol,
how to book visits or to request copies of any awareness material
please contact Wessex Archaeology
Email: **protocol@wessexarch.co.uk** Tel: **01722 326867**
or visit Wessex Archaeology's Protocol website
www.wessexarch.co.uk/projects/marine/bmapa

Protocol
for the Reporting of Finds of Archaeological Interest

mpa essential materials sustainable solutions
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THE CROWN ESTATE

Prepared by
wessex archaeology