Issue 6

Dredged Up from the past

Spring 2010

Archaeology Finds Reporting Service Newsletter

Protocol Update

Welcome to Issue Six of Dredged Up, the popular newsletter of the marine aggregates reporting Protocol.

Staff at CEMEX's Dover Wharf examine finds during an Awareness visit

Since the last issue, dedicated industry staff have continued to report a wide range of unusual and interesting finds. In fact a further 18 reports have been received detailing 38 new finds and new reports are being received every week. A selection of these are shown on page 6.

The finds awards for the 2008-2009 reporting year were made in November. Given the vast range of finds and the huge level of support for the scheme that has been shown throughout the past five years of Protocol reporting, choosing the winners was a challenge! Mark Russell from BMAPA and Ian Oxley from English Heritage supported the nominations and the results are announced on page 2.

Also in this issue, we are joined by Ed Salter, English Heritage's Maritime Archaeologist for Aggregates, who tells us more about how English Heritage works with the industry to protect our submerged history.

Team News

In 2009 The Crown Estate added its support to the Protocol Implementation Service by joining BMAPA as a funding partner. The Crown Estate, which owns the seabed out to the 12 mile limit and grants licences for dredging, was deeply impressed with how effective the Protocol has been in protecting our marine heritage.

Accordingly the Protocol, formerly known as the BMAPA/EH Protocol, will now be known as the Marine Aggregates Protocol, supported by BMAPA, English Heritage and The Crown Estate.

Staff at CEMEX's Southampton Wharf examine finds reported through the Protocol

As always, if you have any questions about finds, finds reporting or the Protocol, please don't hesitate to get in touch with Wessex Archaeology

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Vis or Radom pistol found by staff at Tarmac's Greenwich Wharf

2008 – 2009 Finds Awards

The results of the 2008–2009 finds awards are now in. The winners were nominated by the Wessex Archaeology staff who have worked closely with aggregate wharves and vessels over the past five years, and were heartily approved by Ian Oxley of English Heritage and Mark Russell of BMAPA.

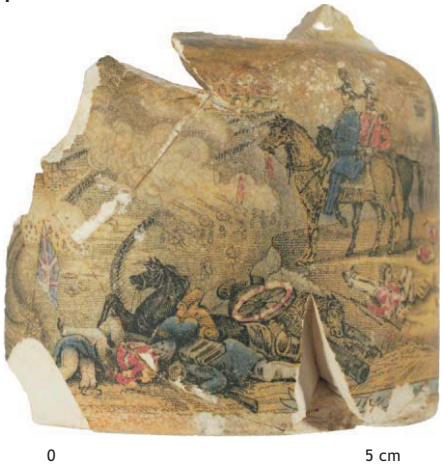
Whilst all wharves and vessels have worked tremendously hard to protect our submerged heritage over the past year, we are pleased to announce that the 2008–2009 finds awards go to:

Best Attitude by a Wharf - CEMEX Portslade

Best Attitude by a Vessel - The *Arco Humber* and the *Arco Avon* (joint award)

Best Find - Tarmac Greenwich for the discovery of a **Radom pistol**

CEMEX Portslade claimed the prize for the Best Attitude by a Wharf for reporting the discovery of a late 19th century relish pot in March 2009. The pot was found in several pieces by Michael Pettitt and Andy Roberts. Not only had wharf staff found several pieces of the pot, they had devoted their own time to searching the heaps for further pieces of the vessel. This dedication allowed archaeologists to identify that the picture printed onto the find depicted the Napoleonic battle of La Albuera.



19th century relish pot found at CEMEX's Portslade Wharf

Below: Stone bead reported by the crew of the Arco Avon and the unusual stone reported by the crew of the Arco Humber

Staff on both the *Arco Avon* and the *Arco Humber* deserve the Best Attitude by a Vessel award for spotting very small finds during the last reporting year. The *Avon* reported the discovery of a stone bead, and staff on the *Humber* reported an unusual small stone that is currently being studied by the Belfast Geologists' Society. Recognising these finds amongst aggregate on a vessel must have been very difficult and their reporting shows real dedication to the Protocol.

Finally, the award for Best Find goes to Tarmac Greenwich (formerly UMD) for their discovery of a Vis or Radom pistol. The discovery of this WW2 pistol, thought by some to be the finest handgun of its time, is quite unusual. This type of gun was manufactured in Poland from the early 1930s, first for Polish troops and then for German forces after the invasion of Poland in 1939 during WW2. It is a mystery as to how it ended up submerged off the east coast of Britain, as German forces only regularly issued this weapon to their police and paratroopers. One theory is that a Polish serviceman owned it and continued to use it when serving with the British Army or the Royal Air Force after the German invasion.

Sample of peat clearly showing the plant remains within it

The Importance of Peat

Peat amongst a dredged load is a problem for the aggregate industry - it is a costly contaminant that will be discarded. However, archaeologically, peat is incredibly valuable.

An archaeologist processes peat samples before studying the plant remains within them

Peat forms when plant remains rot in anaerobic conditions – those where oxygen is absent. This prevents the organic material from completely decomposing so peat usually contains the recognisable remains of many different plant and tree species. Archaeologists are especially interested in peat that has come from offshore, where the location of peat deposits are often known by staff in the aggregate industry long before we become aware of them.

The plant remains within peat found at sea date to a time when the areas dredged today would have been dry land. Despite intensive studies, the seabed is still a very mysterious place and archaeologists are currently trying to piece together the sequences of events that led to the formation of our seabed geology. Peat can help us to do this as plant remains within peat may be suitable for carbon 14 dating. We may also be able to identify the plant species within peat and these can reveal what the climate and conditions were like in the past.

Peat deposits can also contain evidence that teaches us about ancient people – such as flint flakes and tools, worked bone or charcoal that may indicate the location of a fire many thousands of years ago. So by studying peat we can find out what the climate was like, when the plants in the peat grew, whether people were present and what their world was like.

What to do if you find peat

If you find peat amongst a dredged load report it in the usual fashion. Fill in all details on the reporting form including the licence area and the date that it was dredged. If it is found on board a vessel please provide your Nominated Contact with the trackplot as well – your Wessex Archaeology team will be requesting it! If safe to do so, please keep a sample of the peat in a clear plastic sack (no more than half a bag). Label it with a description, the date it was dredged and the name of the finder or Site Champion. When it is reported we will give you a unique number to add to the labels on the bag. You will not need to store this sample for long – if we think we might be able to study it we will arrange to collect it.

Don't forget that if you need any advice on how to report finds or which finds should be reported, get in touch with your Nominated Contact or with Wessex Archaeology via

protocol@wessexarch.co.uk

Wooly mammoth tusk discovered at Purfleet Wharf

Mammoth Amounts of Information

Some of the most exciting and enigmatic finds reported through the Protocol are the remains of mammoths. They are also often the oldest finds. Most of the examples dredged up consist of teeth and tusks, though a few bones have been reported as well, and most originate from *Mammuthus primigenius* – the Woolly Mammoth.

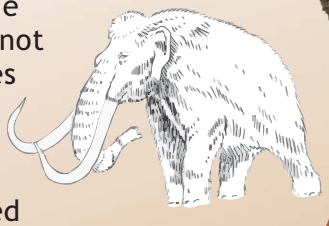
The Woolly Mammoth lived for 150,000 years in Europe, Asia and America and survived as a dwarf species on some islands until around 4,000 years ago. Its geographical spread and media-friendly appeal mean that it is undoubtedly the best known mammoth. However, it is not the only type of mammoth - 13 species have been identified so far.

Whilst some of these lived solely in Africa and America, three species lived in what is now the United Kingdom. Examples of all three have been dredged and reported by BMAPA companies. These are the:

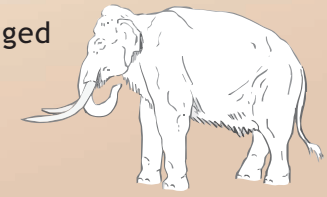
A: The Woolly Mammoth - *Mammuthus primigenius*

B: The Southern Mammoth - *Mammuthus meridionalis*

C: The Steppe Mammoth - *Mammuthus trogontherii*



A



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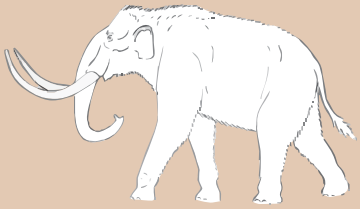

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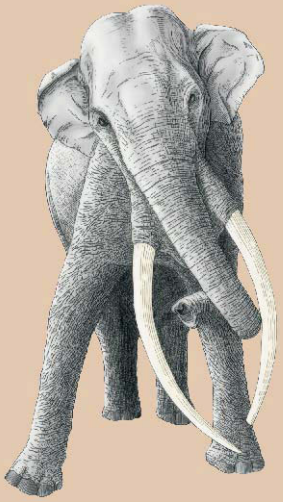
All mammoths are elephants…but not all elephants are mammoths! At times in the past the climate has been much hotter than it is today - hippo bones have been discovered in London that relate to this time. It is possible that as well as finding mammoth remains offshore, the remains of elephants, such as the Straight-tusked Elephant that lived in Europe until around 50,000 years ago, may be discovered.



Fossilised mammoth teeth and bones, SBV Flushing Wharf Hanson

Mammoths originated in Africa nearly 5 million years ago as a species known as *Mammuthus africanavus*, the African Mammoth. Between 3 and 3.5 million years ago mammoths evolved out of Africa and spread to Europe and America. The first mammoth to evolve outside Africa was the Southern Mammoth, which was the ancestor of both the American Columbian Mammoth and the European Steppe Mammoth. CEMEX_0265, a mammoth tooth reported by Dereck Brown of the *Sand Falcon*, was identified by Andy Currant of the Natural History Museum as originating from a Southern Mammoth. This find may be over 2 million years old, making it one of the oldest finds reported through the Protocol.

The study of mammoth remains is very important to archaeologists. During past ice ages it is thought that animals and hominins (early people) would have lived in the areas that are dredged today. If we can start to understand where different species of mammoths were living by studying their remains, we can begin to suggest where hominins may have lived. This helps us to learn more about where we have come from, and it helps us to better protect sites of archaeological interest.

Mammoth Facts

The largest mammoth species was the Songhua River Mammoth - *Mammuthus sungari*, which stood at least 5 metres tall at the shoulder.

Reports from Siberia say that the remains of Woolly Mammoths wash out of the permafrost where they have been preserved so well that the meat, once thawed, can be eaten.

The shortest mammoths, those belonging to a dwarf species, measured between 4.5 and 7ft tall.

Mammoth footprints have been found preserved at several sites around the world.

Most species of mammoth had smooth leathery skin like modern elephants – it was only the Woolly Mammoth and the dwarf variety of Woolly Mammoth that were furry.

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1-2 Tooth of a Southern Mammoth; CEMEX Sand Falcon
3 Mammoth tooth; Tarmac Erith Wharf
4 Mammoth tooth; Hanson Arco Arun
5 Mammoth tooth; Hanson SBV Wharf
6 Mammoth humerus; Tarmac Ridham Wharf
7 Mammoth tooth; Hanson Arco Adur
8 Elephant vertebrae; CEMEX Angerstein Wharf
9 Mammoth tooth; Tarmac Ridham Wharf
10 Mammoth tusk; CEMEX Sand Falcon
11 Mammoth tusk; Hanson Purfleet Wharf
12 De-laminated mammoth tusk; Hanson SBV Wharf
13 Fossilised mammoth bone; Hanson SBV Wharf

13

Stone fishing weight found at a wharf in Antwerp

Finds from 2009 – 2010 so far

Since the new Protocol year started (the finds reporting 'New Years Eve' is on 30th September every year) we have received details of 29 new dredged finds, and reports continue to be received every week. Here are some of the highlights from the first half of 2009-2010.

Red Ensign found at Dover Wharf

This flag was discovered by Richard Cork at CEMEX and Britannia's joint venture wharf at Dover. Initially it was unrecognisable, having been covered in marine silts and dirt. However, careful work by staff at the wharf revealed the true identity of this flag – a Red Ensign. Dredged from the busy shipping lanes to the east of the Isle of Wight, it has been reported to the Receiver of Wreck, who is currently trying to trace the owner of this find – good luck!

Left: Detail of Red Ensign found at Dover Wharf

This shaped stone weight has been carefully perforated to allow it to be used as a fishing or net weight. It was discovered by Malcolm O'Neill amongst a load delivered to Antwerp Wharf, Belgium. Whilst the age of this find isn't yet known, it is possible that it dates from the prehistoric period, over two thousand years ago. Modern fishing weights are made of metal as it is easier to work with. In the first half of the 2009-2010 reporting year, Hanson also reported five examples of modern fishing weights that were found aboard the *Arco Axe*.

Fishing weights found aboard the Arco Axe

This metal item was found by S. Smith of Tarmac, formerly UMD, and was identified as a cast iron retaining strap. Its solid construction makes it likely that this find had a role to play in heavy industry, such as in the construction of railways. It was dredged from the east of the Isle of Wight in an area that has long been known to contain a spread of post-war building rubble. Was this find deposited with the spread of debris? Or is there another reason for its discovery deep below the waves?

Right: Cast iron retaining strap found at Bedhampton Wharf

Cannonball encased in lead

Mysterious Metal Finds

The majority of finds reported through the Protocol are made of metal. This is partly due to the durability of metals, some of which can survive well in the marine environment, partly due to the large number of metal finds deposited at sea in the past 500 years and partly due to their being picked up on magnets or by metal detectors.

One of the most enigmatic finds reported recently was a length of lead wrapped around a cannonball. This was discovered by Justin Apps at Ridham Wharf in Kent and was given to Wessex Archaeology during an Awareness visit. The find is incredibly heavy and very mysterious; Phil Magrath, a specialist from the Royal Armouries Museum, who studies all reported cannonballs, had never seen anything like this. Experts from the University of Southampton suggested that the cannonball may have rolled into the tubing on the deck of a ship but the lead appears to have been deliberately folded at both ends to trap the cannonball inside.

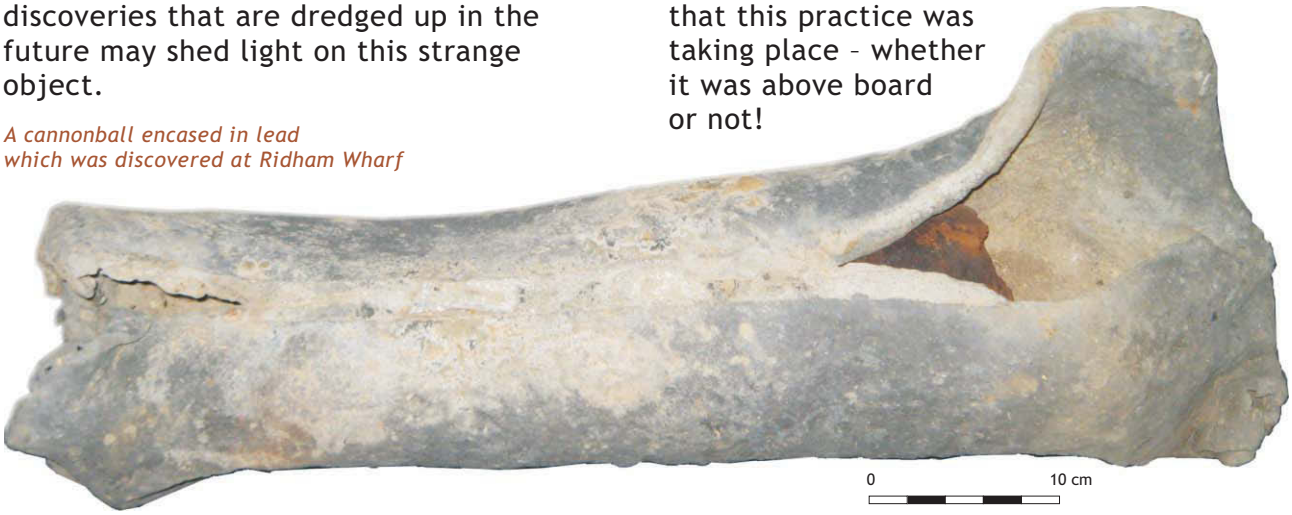
The clue to the identity of this find may be in its weight – this was clearly an item designed to be very heavy. Could it have been designed to sink something to the seabed - perhaps something sinister that needed to be hidden? The dredging area and region are not known, but further discoveries that are dredged up in the future may shed light on this strange object.

This collection of metal finds was discovered by S. Smith, G. Cooper and D. Lutman at Bedhampton Wharf, in material dredged by the *City of Chichester*. These finds came from the east of the Isle of Wight and are likely to represent part of a spread of material that lies in this area which is believed to have been dumped after World War II. The collection includes a four pronged fork, a padlock face plate, a time piece bracket, a belt buckle, 3 switch covers, a damaged window handle, 2 door handles and a doorbell or isolation switch.

Collection of metal items found by Tarmac staff

Most of these finds appear to be of a domestic nature, having come from houses or offices. Portsmouth Records Office holds no reports of material having been dumped offshore in this way, however the continued discovery of finds from this area tells us that this practice was taking place – whether it was above board or not!

A cannonball encased in lead which was discovered at Ridham Wharf



Wessex Archaeology

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ENGLISH HERITAGE

English Heritage and the Marine Aggregates Industry

In this issue Ed Salter, English Heritage's maritime archaeologist working with the aggregate industry, talks to us about the work of their maritime team and the valuable work done by dredging staff to protect our marine heritage. Ed said:

The seas around England contain an immense wealth of archaeological remains that have shaped our society and offer a unique contribution to our identity. This evidence includes not only shipwrecks, but also aircraft, and areas of seabed that were dry land thousands of years ago when they were an attractive place for our ancestors to live.

The potential for marine aggregate dredging to have an adverse impact on the environment has been recognised for a number of years. As the government's statutory advisor for the marine historic environment, English Heritage works closely with industry and other government organisations to ensure that the historic environment is protected during marine aggregate extraction.

Marine aggregates licences are issued by the government on behalf of The Crown Estate, the owner of the English seabed. Any application for dredging must consider how extraction might impact on the historic environment, and include ways to avoid, eliminate, or mitigate those impacts. This is done through the process of Environmental Impact Assessment (EIA).

English Heritage consults with industry and the government throughout this process, which results in the completion of an Environmental Statement. This document can take a number of years to complete and must include information on the effects of the aggregates licence proposal on the environment. This allows the government, on the advice of English Heritage and other environmental organisations, to decide if a licence can be granted.

Aggregates licences normally include conditions to ensure that effects on the historic environment are considered throughout all the stages of extraction and during monitoring work. Amongst the measures we use are Archaeological Exclusion Zones (AEZs), whereby restrictions are placed on dredging within an area around known archaeological sites. In addition, Temporary Exclusion Zones (TEZs) can be adopted around sites of archaeological potential whilst they are still under investigation. Geophysical data collected in monitoring surveys is routinely viewed and interpreted by archaeologists to identify new sites or make changes to existing sites. On the basis of this information, new exclusion zones can be instigated and old ones can be altered or even removed.

English Heritage also commissions projects through the Aggregates Levy Sustainability Fund to reduce impacts on the marine historic environment during aggregates work. One of the most successful initiatives has been the Marine Aggregates Protocol for the Reporting of Finds of Archaeological Interest. Since its inception in 2005, there have been over 173 reports detailing nearly 800 separate finds. The Protocol has been a great success and these finds have made a fantastic contribution to our knowledge of marine archaeology.

The Marine Aggregates Protocol is a great example of the strong relationship that has built up between English Heritage and the aggregates industry over a number of years. It highlights the value of working together, and indicates the benefits of early engagement for both parties. The aggregates industry leads the way in its work with environmental partners, setting a standard for all other marine development activities. We look forward to building on this together in the future.

For further information contact the Maritime Archaeologist (Aggregates):
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