

# Dredged Up

from the past

Spring 2012

Archaeology Finds Reporting Service Newsletter

## Protocol Update

Welcome to Issue 10 of Dredged Up, the popular newsletter of the BMAPA/TCE/EH Protocol Implementation Service.

October marked the beginning of the new Protocol year and the 2010-2011 annual report was published in December. You can download it, and all Protocol annual reports from:

<http://www.wessexarch.co.uk/projects/marine/bmapa/docs.html>

This year's report contains all the wharf reports produced during the 2010-2011 Protocol reporting year, as well as two interesting case studies on other industry protocols that have developed out of the BMAPA/TCE/EH experience and another on faunal remains from the seabed.

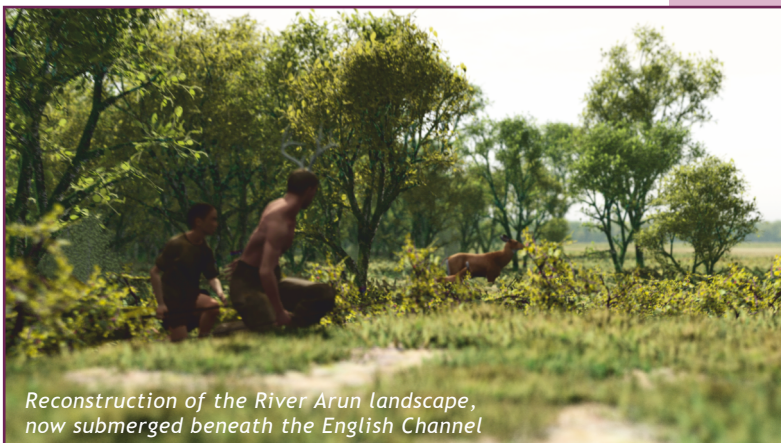
This issue discusses how Protocol finds can shed light on archaeologists' understanding of submerged prehistoric landscapes around the coast (p4-5). Plus an update on recent archaeological work in the Area 240 exclusion zone (p6).



*Dredging aggregate from Area 240*

The 2010-2011 Find Award results are announced on page 2 with a selection of finds reported since the last issue on page 3.

Discover how Protocol finds help English Heritage (EH) to build a picture of the marine historic environment, through Marion Page's article on the National Record for the Historic Environment (p8).



*Reconstruction of the River Arun landscape, now submerged beneath the English Channel*

### Awareness

Awareness is key to increasing the number of finds and ensuring that the marine historic environment is protected. If new wharf staff have joined your team or you would just like refresher training, then get in touch to book a visit, these are free, very informative and fun!

Email us on [protocol@wessexarch.co.uk](mailto:protocol@wessexarch.co.uk) or call 01722 326867 to find out more.



## 2010-2011 Find Awards

We are pleased to announce the results of the 2010-2011 Find Awards. The winners were nominated by staff at Wessex Archaeology (WA) who work closely with aggregates industry staff on both wharves and vessels. They were approved by Ian Oxley of English Heritage and Mark Russell of BMAPA.

Yet again, the Protocol has yielded some fascinating finds of varying age and origin. All aspects of the marine historic environment have been illustrated by this year's finds. The 2010-2011 Find Awards go to:

**Best Attitude by a Wharf** – Tarmac's Greenwich Wharf  
**Best Attitude by a Vessel** – CEMEX's *Sand Falcon*

**Best Find** – Cartwheel Penny discovered at Bedhampton Wharf



Tarmac's Greenwich Wharf was awarded **Best Attitude by a Wharf** for reporting some excellent finds over the past year including a complete barshot. Their fantastic photography has significantly aided WA's identification of their reported finds, for example the detailed close-ups of the serial number on an aircraft undercarriage locking pin identified it as a part from a World War Two Spitfire (see below).



**Best Attitude by a Vessel** was awarded to CEMEX's *Sand Falcon* for reporting many different types of finds including fossilised deer bone, ship timber (see right) and mammoth bone. Their diligence in wrapping fragile timber in polythene and tape to protect and preserve finds ensured they arrived safely at WA for examination.



A Cartwheel Penny discovered by staff at Bedhampton Wharf after it was dredged from Licence Area 127 was awarded **Best Find**. This small find was correctly identified by wharf staff as a coin and they also provided excellent photos. Large numbers of Cartwheel Pennies were minted during the reign of King George III in 1797 and 1798. The front of the coin bears the profile of King George III, with the reverse depicting Britannia seated and looking to the right.

A special mention goes to Hanson Aggregates Marine for their collaborative work with a survey company in reporting an animal bone fragment discovered during a trawl survey (shown on page 3).

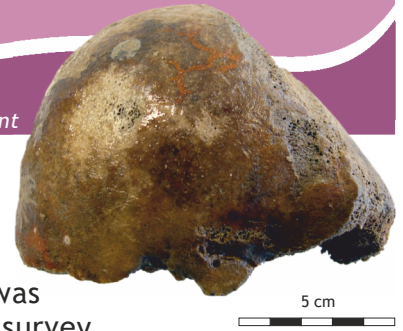
Additional mention goes to Hanson's work in Area 240 as, following planning with EH and WA, they cautiously dredged the small areas within the current exclusion zone with archaeologists on board to examine the loads for finds. Find out more about this work on page 6.

Congratulations to everyone and keep up the good work. For more information about finds that have been reported over the past year, check out our annual report which can be downloaded from the Protocol website.

<http://www.wessexarch.co.uk/projects/marine/bmapa/docs.html>



Animal bone fragment



## Finds from 2010-2011

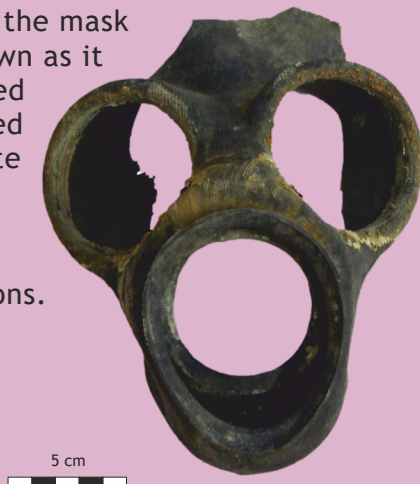
N.C. Sait discovered this wooden rudder at Tarmac's Burnley Wharf amongst material dredged from Licence Area 122/3, which lies off the Isle of Wight. This type of rudder is known as a pintle-and-gudgeon and would have been stern-mounted on a wooden vessel. The rudder is damaged so it is not possible to ascertain the exact size, however it is estimated that it may have been used on a vessel with a keel length of 8 to 15 metres.



This animal bone fragment was discovered by a survey contractor following trawl dredge sampling for Hanson Aggregates Marine in Area 372/1, off the Isle of Wight. It was identified as a fragment of the end of a cattle long bone. It appears to be unfused, which suggests the animal died at around 3 years of age. The age of the bone, a prime age for butchery, suggests it may be waste from a vessel although there were no visible butchering marks. It could date from as early as the medieval period.

## Finds from 2011-2012 so far...

This find was correctly identified by staff at Brett Aggregates Cliffe Wharf as a gas mask. Despite the presence of a serial mark (W.M 231) formal identification is not possible as a comprehensive list is not available. The shape and size of the mask suggests that it was for an adult and is similar to known World War Two masks in the Imperial War Museum's collection. The origin of the mask is also unknown as it was discovered amongst mixed load aggregate from both Humber and East English Channel regions.



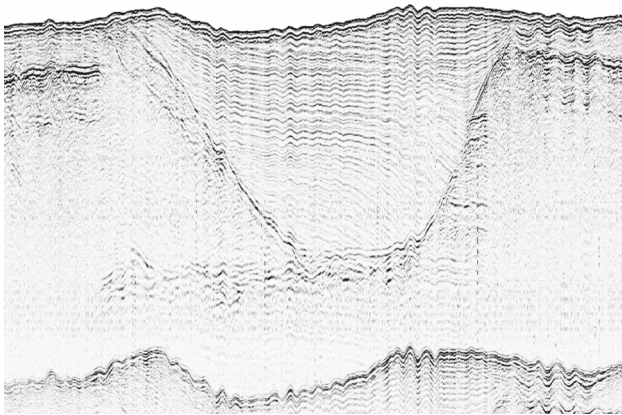
N. Coombs discovered this mammoth tooth onboard *Sand Fulmar*. It was discovered amongst aggregate dredged from Licence Area 447 in the Thames region. There are many different types of mammoth, however Andy Currant from the Natural History Museum suggested that this tooth fragment may belong to *Mammuthus meridionalis*, an early species which lived from 2.5 million to 100,000 years ago. Finds like this can aid our understanding of submerged prehistoric landscapes, read more about this on pages 4-5.





## Populating a hidden landscape

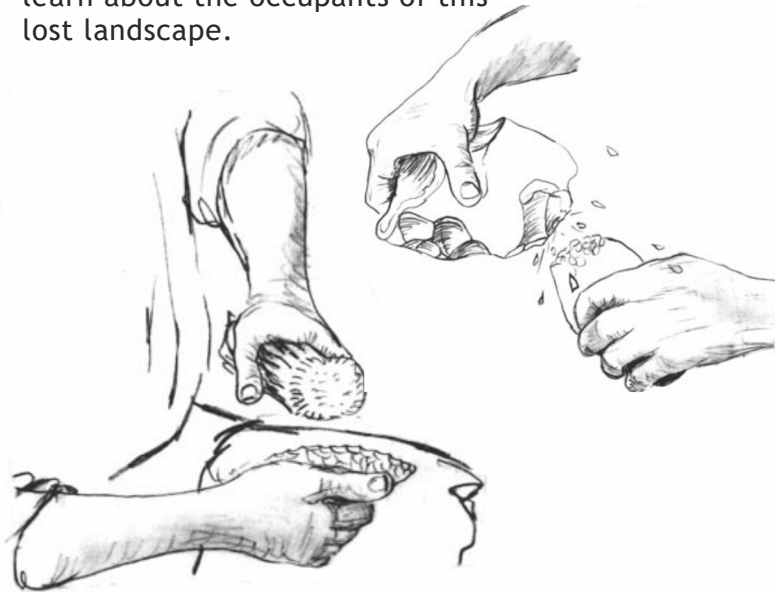
Over the past six years the Protocol has uncovered finds which have shed light on Britain's submerged prehistory. Finds from previous cold periods, when parts of the North Sea, English Channel and Irish Sea were dry land, help archaeologists understand the potential for prehistoric archaeology now covered by water.



Sub-bottom profile of river channel

Geophysics and geotechnical techniques can be used to map the seabed and provide information on the structure of sediments underneath the seafloor. This information can help archaeologists recreate the prehistoric landscape by identifying landscape features such as river channels and assessing environmental evidence from core samples. However, areas of human occupation can only be identified when artefacts are located. Geophysical surveys cannot locate a flint scatter where a

prehistoric man may have sat and made stone tools. This is where the work of the marine aggregates industry and the Protocol has provided a fantastic resource of finds, allowing archaeologists to learn about the occupants of this lost landscape.



Finds relating to the submerged prehistoric environment are frequently reported via the Protocol. These finds, including worked flint, animal bones and peat samples, can reveal information about past environments, animal occupation and human activities in these areas.

Auroch bone - Tarmac



Hippo bone - CEMEX

In 2008, a significant assemblage of flint tools and faunal remains was dredged from Licence Area 240 in the East Coast region. This led to an ALSF-funded project to better understand this currently unique area and how future Licence Areas can be investigated to identify potential sites of Palaeolithic interest. Find out about the latest work on this site on page 6.





Deer bone - CEMEX



### Populating the Past

Worked stone tools, such as flint flakes and handaxes, demonstrate where people may have made tools and hunted in now submerged areas around Britain. Tools reported through the Protocol may either be found *in situ* (discovered where originally discarded) or out of context, having been moved around with the seafloor sediments or earlier by rivers.

Animal remains found on the seafloor can arrive there in one of three ways:

- Cargo or waste materials associated with a ship;
- Deposited when an animal dies near a river and the remains are washed downstream and out to sea;
- Animals living and dying where areas of the seafloor were dry land during past cold periods.

Palaeo-environmental material, such as pollen and seeds found in peat or clay deposits, are of particular interest in reconstructing the landscape. Peat and clay deposits may also preserve organic materials such as wood, animal remains or charcoal, and may reveal areas where humans were making tools, butchering animals, or lighting fires.



Reconstruction of the River Arun landscape, now submerged beneath the English Channel

Mammoth tusk - Hanson



Giant deer antler fragment - Cemex



Peat processing



Identifying worked flint amongst a load of aggregate is a challenge but if you see something that looks as if it has been shaped into a tool, please report it. For more information on identifying stone tools, download - *Identifying Worked Flint* from the BMAPA Protocol pages.

<http://www.wessexarch.co.uk/projects/marine/bmapa/docs.html>

Without the excellent finds reported by the marine aggregate industry via the Protocol, these sites of submerged prehistory would remain a mystery. Keep reporting these finds, including animal bones, teeth and tusks, so we can continue populating this lost landscape.

Find out more about Seabed Prehistory at: [www.wessexarch.co.uk/projects/marine/alsf/seabed\\_prehistory](http://www.wessexarch.co.uk/projects/marine/alsf/seabed_prehistory)



## Area 240 Update

In the winter of 2007/08 an assemblage of 88 flint tools were discovered amongst aggregate from Licence Area 240. This comprised 33 handaxes, 47 complete and fragmented flakes and flake tools, and 8 cores, plus over 100 associated faunal remains. A 2½ year Aggregates Levy Sustainability Fund (ALSF) project revealed that the flints were associated with a landscape dating to the Middle Palaeolithic Period (200,000-300,000 years ago).



Archaeologist Andrew Bicket on board Arco Adur

In the Autumn of 2011 *Arco Adur* ventured into the exclusion zone with archaeologists onboard who examined the top of the aggregate following the dredging process. Archaeologists Andrew Bicket and John McCarthy, tell us more:

“We were onboard to assess the dredge loads for prehistoric archaeology, something that hadn't been done before so we weren't sure what to expect. Working an 18 hour trip meant that some days we were working in daylight, followed by a shift in the early hours. It took a bit of getting used to. Hopefully, we were able to give the guys enough information so that they could identify prehistoric archaeology as well as other archaeological materials. The crew were very supportive and their experience helped make the project successful. By the end they were faster at finding stone tools, wood and bones than we were!”

Hanson Aggregates Marine Ltd (HAML) is keen to work with EH and WA to gain more knowledge of the environment and context of the finds within Area 240. Nigel Griffiths, HAML's principal resources manager, said:

“Useful discussions with EH and WA have been held aimed at allowing us to continue dredging. This means that more finds could be discovered and further information gathered through good observation and a practical methodology involving all staff, but particularly those on ships and on wharves at Flushing and Frindsbury. The finds would not have been made without our activities and through WA we have hopefully found a way forward that is practical and benefits everybody.”

Ed Salter from EH facilitated the project. “This project represents further proof of the partnership approach and the good relations that exist in England between the archaeological sector and the marine aggregate dredging industry. The HAML funded project is providing finds that enhance our understanding and improve the management of an area of clear archaeological significance. The results and findings of the project demonstrate the ongoing importance of Area 240 and the wider east coast dredging region for Palaeolithic archaeology.”



Stone tools from on board Arco Adur

The Area 240 finds are thought to be associated with the development of a channel which is an offshore extension of the Palaeo-Yare River, which was cut around 400,000 ago. BMAPA and TCE have commissioned WA to conduct an assessment of the Palaeo-Yare river catchment area to try and establish the extent of the landscape from which the flint and bone remains were dredged from Licence Area 240. The project involves the assessment of geophysical and geotechnical data, and synthesising these results to establish the archaeological potential of the offshore catchment area.





## Reporting Tips and keeping up to date with the latest reports

Dredged Up 8 provided hints and tips about how to take photographs of discoveries including close up and using a scale. These photos are used to illustrate finds in wharf and Discovery reports. To ensure the best quality please make sure that photos of discoveries are saved as a jpeg file before forwarding them to your Nominated Contact. These files can then be uploaded onto the portal.

These photos may also be published on the Protocol webpages to illustrate recent discoveries. You can keep up to date with the latest finds at:

<http://www.wessexarch.co.uk/projects/marine/bmapa/discoveries.php>



This webpage only shows a few of the most recent reports. To see all previous reports click on “Subscribe to the discoveries by RSS” where you can search by any criteria or sort reports by title or date.

### Identifying Stone Tools

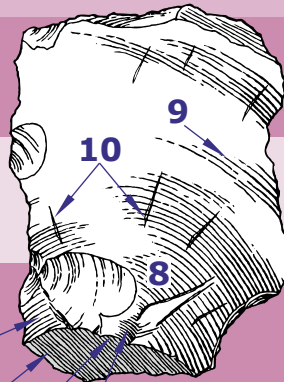
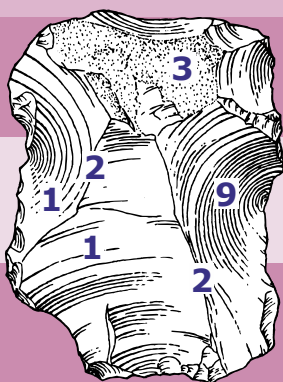
This issue of the newsletter has discussed finds of archaeological interest that relate to the submerged prehistoric landscape around Britain, as illustrated flint or stone tools are important finds for identifying areas of human occupation. Here are some things to look for when trying to identify worked stone:

#### Dorsal

#### Side

#### Ventral

#### Know Your Flint



Distal

Central

Proximal

1. Negative Flake Scars
2. Ridges
3. Cortex
4. Bulb Scar
5. Butt
6. Point of Percussion - where the stone has been hit
7. Cone of Percussion - where a dent forms after the flint has been struck
8. Bulb of Percussion - where a raised lump is formed after a flint has been struck
9. Conical Ripples - formed following impact from working strikes
10. Fissures



Wessex Archaeology



essential materials  
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ENGLISH HERITAGE

## Monument Records For BMAPA/TCE/EH Protocol Finds



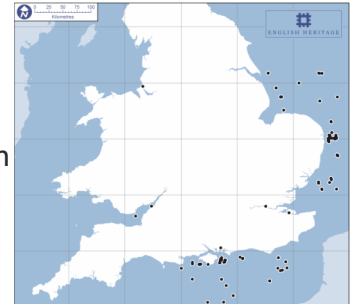
Marion Page is Data Team Officer at English Heritage (EH). Protocol Discovery Reports are sent to her for inclusion in EH's national database.

The Heritage Data Management team is responsible for the development and management of heritage datasets for EH. These include the National Record of the Historic Environment (NRHE) which comprises records of all the archaeological sites and historic buildings in England and its territorial waters. The NRHE contains nearly 400,000 monument records with a wide coverage of heritage themes, from prehistoric sites to recent heritage of the Cold War. The NRHE also includes maritime archaeology, predominantly wrecks of vessels and aircraft. It is the only national maritime dataset in England that is regularly updated. Linked to the monument records are nearly 190,000 records of investigations like excavations, surveys etc. This information is made freely available to the public via the PastScape website (<http://www.pastscape.org.uk/>).

Details of Protocol finds are recorded in the Discovery Report produced by Wessex Archaeology. One of the main objectives of the BMAPA/TCE/EH Protocol is to facilitate the transfer of these details to EH and the appropriate local Historic Environment Records. All finds reported through the Protocol are then entered onto the NRHE.

Since the introduction of the Protocol in August 2005, 206 records of findspots for material dredged and reported under the Protocol have been created on the NRHE

using information provided by the Discovery report. These records include the location both as Ordnance Survey Grid Reference and Latitude and Longitude, the



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Licence Area, a description of the find including its age and material, the source, the date when the find was reported, a reference number, the event name, the date of dredging and the marine aggregate producer. All records are also indexed using appropriate EH thesauri terms such as those for object type (e.g. cannonball) and material type (e.g. metal), for ease of retrieval.

All NHRE data is spatially represented in GIS (Geographic Information System), enabling distribution maps to be produced. A possible scenario for example would be to produce a distribution map of the findspots of all post-medieval cannon balls. This is an easy way of assessing the evidence for cluster findspots and therefore for potential wrecksites, for example. When used in combination with the existing data on wrecks in the NRHE, finds can be attributed to wrecksites that have already been identified.

**So, keep reporting discoveries and remember to provide the most accurate location information possible for dredged finds so that we can build a better picture of our submerged heritage.**