

2007-2008



Protocol for reporting finds of archaeological interest

Annual Report to BMAPA 2007-2008



ENGLISH HERITAGE



November 2008

Prepared by

Wessex Archaeology 

British Marine Aggregate Producers Association
and
English Heritage

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Project Background

In April 2003, the British Marine Aggregate Producers Association (BMAPA) and English Heritage (EH) jointly published *Marine Aggregate Dredging and the Historic Environment: Guidance Note*. The Guidance Note sets out the character and importance of the marine historic environment and describes best practice in dealing with archaeological matters in the course of planning marine aggregate dredging in English marine waters. It includes details of measures to mitigate the effect of marine aggregate dredging on the historic environment, including the implementation of protocols to report and deal with finds made in the course of dredging.

Protocols for reporting archaeological finds emerged as a mitigation option as it became apparent that watching-briefs by archaeologists, either on board dredging vessels or at wharves, were likely to prove ineffective because of the scale and character of the dredging process. Protocols provide the structure and basis for the formal reporting required as part of the conditions attached to dredging permissions. Protocols are intended to provide a 'safety net' for reporting finds that occur once dredging is in progress, and are in addition to measures to avoid areas of archaeological sensitivity through desk-based assessment and field evaluation.

Such protocols have previously formed part of the mitigation strategy set out in several Environmental Statements for individual dredging licence applications. However, BMAPA recognised that it would be more consistent and effective to introduce a single, unifying protocol and in August 2005 BMAPA and EH introduced a protocol applicable to all BMAPA members, covering all wharves, vessels and production licence areas.

The Protocol was prepared by Wessex Archaeology (WA) in consultation with BMAPA, EH and other interested parties. BMAPA member companies have voluntarily committed to implementing the Protocol across all existing operations. It is hoped that non-BMAPA companies will also adopt the Protocol voluntarily.

Protocol

The Protocol provides for finds being made by members of staff employed by aggregate dredging companies on the seabed, on board dredging vessels, and at wharves.

Munitions or suspected munitions must first be reported through the procedures outlined in the Guidance Note 'Dealing with munitions in marine aggregates' (June 2006) to ensure staff safety and to ensure compliance with legislative requirements. Following the identification, and where necessary disposal of suspected items by the appropriate

personnel (military EOD), a written record (including photographs where available) may be submitted through the protocol.

Under the Protocol, staff report to a local 'Site Champion' on the vessel or at the wharf and the Site Champion compiles a preliminary report. The Site Champion passes the report on to the 'Nominated Contact', a single identified person within each company (see table below).

The role of the Nominated Contact within each company is to inform EH of the find as soon as possible, and to pass on the reported details, preferably within two working days of receiving information from the Site Champion. The Nominated Contact is also required to advise other dredgers operating in the same area to keep a particular watch for finds and, if the seabed position of the find is reasonably certain, to implement a Temporary Exclusion Zone (TEZ) until archaeological advice has been obtained. TEZs may only be revoked if it can be concluded that no important wreck or other feature is present. TEZs may be

formalised as a longer-term Archaeological Exclusion Zone (AEZ) if the presence of a wreck or feature is confirmed or if no conclusion can be drawn and the company does not wish to resolve the situation by further investigation.

EH's role is, on receiving the report, to advise the Nominated Contact of the actions to be taken. EH will also liaise with various agencies, institutions and individuals with responsibilities and interests in respect of the marine historic environment and finds from the sea, and pass details of the find on to the National Monuments Record (NMR) and appropriate local Sites and Monuments Record/Historic Environment Record (SMR/HER).

WA is currently carrying out these aspects of EH's role as part of an Implementation Service commissioned and supported by BMAPA. The Implementation Service has now completed its third year of operation and it is the year October 2007 to September 2008 which is the subject of this annual report.

BMAPA Company	Nominated Contact	Position
Britannia Aggregates Ltd	Richard Fifield	Marine Resources Manager
DEME Building Materials Ltd	Frank Rimell	Resident Manager
Hanson Aggregates Marine Ltd	Kimberley Bridge	GIS and Resources Co-ordinator
Kendall Bros (Portsmouth) Ltd	Richard Kendall	-
Northwood (Fareham) Ltd (Lafarge Aggregates Ltd)	Steve Wakerly (Malcolm Whittle)	General Manager -
Norwest Sand & Ballast Ltd	Nick Brown	General Manager
CEMEX UK Marine	Graham Singleton	Marine Resource Manager
United Marine Aggregates Ltd	Nicholas Corne	Licence Development Co-ordinator
Volker Dredging Ltd	Will Drake	Marine Resources Manager

Implementation Service

The Implementation Service encompasses elements of EH's role in the Protocol that are concerned with recording and passing on information about reported finds, and limited decision-making regarding archaeological actions in respect of reports that can clearly be addressed without contention.

The Implementation Service does not cover decision-making where a higher level of curatorial involvement is required (i.e. where reports result in TEZs that are likely to warrant further investigation and/or formalisation as an AEZ).

At the core of the Implementation Service is a web-based reporting system. Nominated Contacts have secure access to web pages on which they can record details of finds reported by Site Champions and through which they can receive advice.

Each report received through the web-pages is assessed by WA staff. Contentious discoveries are forwarded promptly to EH for further curatorial assessment. Reports considered non-contentious are dealt with by WA staff.

Scanned drawings, digital photographs and other files may be uploaded to the website for the purposes of interpretation. In certain circumstances WA may request that the find is made available for closer inspection but, in most cases, recovered finds are held by the companies.

Advice is sought from accredited specialists within and external to WA regarding both interpretation and any additional works required; stabilising, conserving or recording recovered finds. This advice is passed to the Nominated Contacts along with guidance on resolving issues of ownership and disposing of finds.

The provision to carry out any additional work falls outside the terms of the Implementation Service although the companies may make arrangements with WA to carry out further work at an additional cost. Advice on sources of funding can be provided by WA.

WA is also responsible for disseminating the information reported through the Implementation Service to the NMR and local SMR/HER and other interested parties such as:

- EH Maritime Archaeology Team
- The Crown Estate
- EH regional offices
- Local Government Archaeological Officers
- Portable Antiquities Scheme (PAS) Finds Liaison Officers
- the Receiver of Wreck
- the Ministry of Defence

Through the web pages WA can generate a report compliant with the Monument Inventory Data Standard, a content standard for heritage data sets that sets out what sort of information should be recorded. This report can then be forwarded via email to the above parties.

Feedback is sent to the wharves and vessels in the form of an A4 poster providing an archaeological and historical context for the discovery and outlining its importance.

If permission is given by the Nominated Contact details of the finds are also made publicly available through WA's web pages.

Further information about the Protocol and the Implementation Service may be found at:

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



Awareness programme training

Raising Awareness

In 2006, WA was funded by EH through the Aggregates Levy Sustainability Fund (ALSF) to carry out an Awareness Programme for the Protocol. In 2007, WA received further funding from the ALSF to carry out an extension to the Protocol Awareness Programme. The extension ran from May 2007 to February 2008 and aimed to consolidate and extend awareness of the Protocol amongst aggregate industry staff, and encourage its use.

The Programme comprised of:

- visits to wharves receiving aggregate from a BMAPA company, including those in Wales and on the continent;
- visits to geophysical and environmental survey companies that service the industry;
- a workshop for Nominated Contacts, Site Champions and other interested parties including archaeology professionals which took place on 25th September 2007 in Salisbury;
- two further newsletters to publicise the service and highlight recent finds, one published in Autumn 2007 and the other in the Spring of 2008;
- a second DVD to support previously supplied remote learning materials

Visits to wharves and survey companies utilise a combination of formal and informal techniques, including presentations, group discussions and one-to-one discussion as appropriate to circumstances and facilities.

Specific information was provided to staff on:

- the nature of the marine historic environment using examples of finds reported through the Protocol;
- identifying typical marine finds and why they are archaeologically significant, using examples of finds reported through the Protocol;
- an outline of the Protocol and the responsibilities of staff under the Protocol;
- tips for recording finds, including the kind of information required using examples of finds through the Protocol and advice for photographing finds;

- handling, conserving and storing marine finds;
- contacts for receiving additional advice on particular finds from local authorities or organisations;
- legislation relating to archaeology on the seabed.

WA also submitted an article entitled 'Dredged up from the Past' on the recent archaeological finds reported through the EH/BMAPA Protocol Implementation Service as part of the June 2008 edition of Hydro International magazine. A forthcoming article on recent finds reported through the Protocol is currently being compiled for Deposits magazine.

In response to requests from industry, the first issue of a newsletter was prepared in the spring of 2007 under the Awareness Programme and distributed to inform staff about finds and activities at other wharves/vessels around the country. As discussed above, further editions of the newsletter for Autumn 2007 and Spring 2008 were also produced under the Extension to the Awareness Programme and a further proposal has been made to EH for an extension of the Awareness Programme to 2011.

The Extension also aimed to:

- generate additional education and outreach material to reinforce the 2006-08 Programme through additional guidance around issues raised by industry;
- revisit wharves to meet new staff or those staff who were not present at the time of the first visit and reach those wharves not visited previously where aggregate from English licences are landed;
- fill gaps identified during the course of the previous programme, particularly in relation to finds storage on conservation and liaison with local museums or other interested bodies local to the wharves;
- to publish a further 5 issues of the "Dredged Up from the past" newsletter.



Selection of finds reported through the Protocol during 2007-2008

Reports: Protocol

During the third year of operation WA received 63 reports through the Implementation Service, up from 30 reported during the second year and 19 reported during the first year. These 63 reports encompassed approximately 162 separate finds.

Further details of each discovery are included in the wharf reports appended to this report. This is with the exception of Hanson_0133, which due to the significance of the finds, is currently in process.

Date Reported	Report ID	Licence Area	Wharf / Vessel	Description	No.
12/10/07	UMA_0112	127	Southampton	Various metal fixtures and fittings	5
12/10/07	UMA_0113	396	Bedhampton	Animal bone and wood fragments	5
25/10/07	UMA_0114	122/3	Southampton	Bone, wood and slag fragments and a brick	7
29/10/07	Hanson_0115	East Coast /435 Owers	Arco Adur	Iron pieces (inc. 1 possible anchor stock)	3
29/10/07	Hanson_0116	127	Arco Avon	Natural Stone	1
12/11/07	UMA_0117	296	Erith	Femur fragment	1
22/11/07	Hanson_0118	242	SBV	Bone and wood fragments and an aircraft fuel gauge	14
23/11/07	UMA_0119	122/1A	Shoreham	Bone fragment	1
30/11/07	UMA_0120	395/1	Bedhampton	Various brass items	7
30/11/07	UMA_0121	122/3	Bedhampton	Bone fragments	2
02/01/08	UMA_0122	395/1	Bedhampton	Brass ornamental dogs head	1
02/01/08	UMA_0123	Unknown	Southampton	Metal concretion	1
02/01/08	Hanson_0125	377	Arco Dart	Admiralty Anchor	1
02/01/08	Hanson_0126	240	SBV	Two de-laminated sections of tusk	2
17/01/08	UMA_0127	122/3	Bedhampton	Various metal objects	9
21/01/08	CEMEX_0128	113/1	Sand Harrier	Bone fragments	4
21/01/08	UMA_0129	430	Ridham	Cannon Ball	1
07/02/08	Kendalls_0130	351	Kendalls	WWII Admiralty Telescope	1
13/02/08	Hanson_0133	240	Flushing	Various prehistoric finds, flint handaxes, mammoth molars, tusk fragments and antler.	28+
14/02/08	Hanson_0135	240	Arco Adur	Broken aluminium structural fragment.	1
05/03/08	UMA_0137	127	Bedhampton	Fossilised wood	1
05/03/08	UMA_0138	122/3	Bedhampton	Wood fragments	3
05/03/08	UMA_0139	396	Bedhampton	Natural Stone	1
06/03/08	UMA_0140	296	Ridham	Cannon Ball	1
06/03/08	UMA_0141	296	Ridham	Cannon Ball	1
18/03/08	UMA_0142	430	Ridham	Two Cannon Balls	2
19/03/08	UMA_0143	430	Ridham	Concreted Chains and Ring	2
25/03/08	UMA_0144	430	Ridham	Bone Fragment	2
25/03/08	UMA_0145	296	Greenwich	Cannon Ball	1
25/03/08	UMA_0146	430	Greenwich	Two Cannon Balls	2
25/03/08	UMA_0147	254	Greenwich	Wooden pulley block	1
27/03/08	CEMEX_0149	127	Sand Weaver	Wood Fragment	1
15/04/08	Hanson_0150	240	Arco Adur	Peat Concentration	N/A
22/04/08	UMA_0154	124/1a	Southampton	Round Shot	1
22/04/08	UMA_0155	124/1a	Southampton	Metal Plaque with lettering	1
22/04/08	UMA_0156	320	Southampton	Metal debris	5/6+
22/04/08	UMA_0157	340	Southampton	One cobble stone and one brick	2
22/04/08	UMA_0158	340	Southampton	Bone Fragment	3
23/04/08	UMA_0159	340	Southampton	Pottery	1
23/04/08	UMA_0160	296	Ridham	Bone Fragment	1
23/04/08	UMA_0161	430	Ridham	Cannon Ball	1
23/04/08	UMA_0162	296	Ridham	Natural Stone	1
23/04/08	UMA_0163	296	Ridham	Cannon Ball	1
23/04/08	UMA_0164	296	Ridham	Brass plated pin	1
25/04/08	CEMEX_0165	113/1	Northfleet	Bone Fragment	1
12/05/08	UMA_0166	Unknown	Bedhampton (South Coast)	Brass Measuring objects	2
16/05/08	Hanson_0169	240	Arco Arun	Mammoth Tooth	1
16/05/08	Hanson_0170	240	Hull	Ammonite Spiral (part of)	1
21/05/08	Hanson_0171	Belgium Waters	Arco Beck	Pottery and antler fragment	3
30/05/08	UMA_0173	447	Erith	Ship's speed log	1
12/06/08	Hanson_0174	372/1	Southampton	Bunch of junk!	4
12/06/08	Hanson_0175	391	Arco Dart	Lead letter 8	1
17/06/08	UMA_0176	127	Southampton	Iron Nail	1
17/06/08	UMA_0177	395/1	Southampton	Flag pole top	1
17/06/08	UMA_0178	122/3	Bedhampton	Bicycle bell	1
18/06/08	Hanson_0179	473 East	Arco Avon	Copper Alloy Hinge	1
25/06/08	Hanson_0180	240	SBV Flushing	Mammoth teeth and struck flint	4
03/07/08	UMA_0182	Unknown	Greenwich (East Coast)	Possible Flint Flake	1
08/07/08	UMA_0183	122/3	Southampton	Commando knife and axe head	2
08/07/08	Hanson_0184	127	Southampton	Brass objects, ?shell casing lids	2
08/07/08	UMA_0185	122/3	Bedhampton	Portsmouth Education Committee Employment Badge	1
10/07/08	UMA_0186	395/1	Southampton	Deer bone	1
02/09/08	Hanson_0187	106C	Humber	Metal blade	1
					Total 162+



Selection of handaxes from Hanson_0133 and mammoth teeth and tusk from SBV Flushing wharf.

Case Study 1: Prehistoric Finds



In February 2008, a discovery of immense archaeological significance was reported through the Protocol. An amazing collection of at least 28 handaxes some 100,000 years old were found over a three month period within material that had been dredged from licence area 240, approximately 13km off Great Yarmouth. These lithic finds were found alongside faunal remains, some of which are believed to have derived from mammoths.

The material in which these discoveries were made had been transported to Hanson's SBV Flushing wharf near Antwerp in the south west of the Netherlands. It was here that Dutch amateur archaeologist, Jan Meulmeester, first came across the finds. Mr. Meulmeester, who regularly searched the aggregate for finds, recognised the importance of the handaxes and informed the wharf staff of their significance.

On hearing of their discovery, Phil Harding of Wessex Archaeology and Channel 4's Time Team stated that the hand-axes were 'the single and most important find of Ice Age material from below the North Sea'. The handaxes, which would have been used by prehistoric humans in the butchery of animal carcasses like mammoths, indicate the presence of Ice Age hunters in the area off Great Yarmouth which is currently some 25m below sea level. During an Ice Age, a larger proportion of the world's water becomes incorporated into ice sheets and as a result, there is a fall in sea level. This in turn exposed areas of the English Channel, the Irish Sea and the North Sea as dry land at times throughout the past.

Although they have not been precisely dated, the handaxes are thought to be some 100,000 years old dating to the last ice age known as the Devensian, at the height of which (c.18,000 B.P.) sea level is estimated to have been some 120m lower than its current level. The handaxes do not appear to have been subject to a high level of abrasion, and as such it is thought that they may have been dredged from a deposit in which they lay *in situ*. Discoveries of peat concentrations within the East Coast dredging region (CEMEX_0039 and Hanson_0150) reported through the Protocol are certainly indicative of a submerged landscape within the vicinity. Consequently, they provide the finest examples of prehistoric lithic artefacts which are certain to have derived from the seabed, relating to a time when this area of the North Sea was exposed as an inhabitable landscape suitable for human exploitation and occupation.

The discovery and reporting of these significant finds demonstrates the high level of co-operation that exists between the dredging industry, through its trade association, the British Marine Aggregate Producers Association (BMAPA) and English Heritage (EH). At present, a Temporary Exclusion Zone (TEZ) has been established in the area from which the prehistoric finds were dredged, thus preventing further disruption of this site of potentially high archaeological significance. These were shortlisted for a British Archaeological Award under the category of Best Archaeological Discovery and on November 11th 2008 they were announced as the winner of the Award. Mark Russell of BMAPA, Rob Langman of Hanson and Jan Meulmeester were on hand to accept the award.



Case Study 2: 17th Century Anglo-Dutch Wars

In the third year of the Protocol alone, 10 cannon balls were discovered in material dredged from the East Coast dredging region. These, alongside previous discoveries of cannon balls reported in the second year of the Protocol, amount to a significant total of 14 cannon balls discovered throughout dredging operations within this region. Of this total, 10 were discovered in material dredged from licence area 430, approximately 25km south-east of Southwold on the Suffolk coast. A further 4 cannon balls were found in material dredged up from licence area 296, approximately 14km east of Great Yarmouth on the coast of Norfolk. The finds were reported variously by staff at UMA's Ridham and Greenwich wharves.

In researching the possible origin of the cannon balls, it became apparent to WA that the distribution of the cannon balls within Licence Area 430 was of great significance. Throughout the 17th century, two naval battles of the Anglo-Dutch Wars are known to have taken place in the region in which these finds were discovered, the Battle of Lowestoft 1665 and the Battle of Sole Bay 1672. The Battle of Lowestoft was the first engagement of the Second Anglo-Dutch War 1665-7 and the Battle of Sole Bay was the first engagement of the Third Anglo-Dutch War 1672-4.

The Anglo-Dutch Wars are an extremely important part of England's history. Not only are they significant aspects in the history of naval warfare, but also as struggles for commerce rather than territory, they played a significant role in determining the development and control of trade routes across the sea. These great battles were the most 'maritime' military engagements of the era as they were based almost entirely at sea and as such had a profound impact in shaping the development of the English Royal Navy.



Selection of cannon balls from Licence Area 430



0 approx. 100 mm



To ascertain whether or not these cannon balls may have derived from either one of these battles of the Anglo-Dutch Wars, details of the various round shot were sent to Phil Magrath, the Curator of Artillery at the Royal Armouries Museum. Through providing the diameter and weight of the shot, Phil was able to determine whether each individual cannon ball was the correct calibre for the types of guns deployed on vessels used in these naval battles.

The calibre of each cannon ball reported during the third year of the protocol varied to a significant degree. The cannon balls ranged from 3½ inches to 6.75 inches in diameter and 5lbs 8oz to 36lbs in weight, suggesting a diverse array of guns from which they were fired. To date, the cannon balls discovered from Licence Area 430 reported through the Protocol variously represent 6-pounder guns also known as sakers, 9-pounder guns, 12-pounder guns which were widely deployed on Third Rate vessels in the Battle of Lowestoft and 18-pounder guns which were widely deployed on First and Second Rate vessels in the Battle of Lowestoft. Consequently, it is possible that these cannon balls may all derive from the Anglo-Dutch wars of the mid 17th century.

Details of the shot discovered in material dredged from Licence Area 296 were also sent to Phil Magrath. These cannon balls measured 5½ inches to 6.75 inches in diameter and 18lbs to 36lbs in weight, representing shot fired from 18-pounder and 42-pounder guns. As these cannon balls derived from a Licence Area some 38km north of Licence Area 430 it is unlikely that they derive from the same Anglo-Dutch Wars as initially thought. WA is currently in the process of determining the origin of these cannon balls.

It is possible that these cannon balls came to be on the seabed having been fired during a naval battle. However, as the remains of vessels on the seabed are often indicated solely by the more durable items carried onboard, these finds alongside the discovery of further artefacts within these areas have the potential to pinpoint a previously unknown and uncharted shipwreck relating to a historic naval battle. Throughout the Battle of Lowestoft 20 Dutch and 2 English vessels were lost. At the Battle of Sole Bay, a further 3 Dutch and 4 English and French ships were lost. To date, no wreck sites relating to these naval battles have been located.

Wharf and vessel staff are encouraged to note the weight and diameter of the cannon balls on their discovery so that we are able to ascertain the calibre of the shot. We also ask that Nominated Contacts provide the vessel trackplot for the day in which such finds are discovered to enable us to note any patterns of distribution that may further aid the discovery of an unknown wreck site. It is of the utmost importance that any future finds of archaeological interest discovered in this dredging region are reported through the protocol immediately, as they may relate to significant episodes of Britain's maritime history.



Specialists

During the year 2007 to 2008 specialist advice was sought from a number of experts in order to obtain the best possible interpretation and to offer the most appropriate advice to Nominated Contacts regarding conservation and disposal of the finds.

Details of the assistance given by specialists in relation to specific finds are included in the wharf reports appended to this report.

Expert	Specialism	Institution/Organisation
Phil Andrews	Post medieval	Project Manager, Wessex Archaeology
Frank Basford	Archaeological artefacts	Finds Liaison Officer, Isle of Wight
Andy Currant	Ice age mammals	Collections Manager (Palaeontology), Natural History Museum
Bob Davis	Archaeological artefacts	Project Officer, Wessex Archaeology
John Edmondson	Head of Sciences	Lierpool Museum
Antony Firth	Commercial maritime archaeology	Section Head (Coastal and Marine), Wessex Archaeology
Jan Glimmerveen	Bone and flint (North Sea)	North Sea Project, CERPOLEX/Mammothus
Jessica Grimm	Animal bone	Animal Bone Specialist, Wessex Archaeology
Katie Hinds	Archaeological Artefacts	Finds Liaison Officer (Wiltshire)
Adrian Jarvis	Maritime History and Archaeology	Researcher at Liverpool University and former Curator of Port History at the Maritime Museum in Liverpool
Ian Jones	Ammunition and explosives	Explosives Officer, Metropolitan Police
Matt Leivers	Prehistoric flint	Finds Specialist, Wessex Archaeology
Phil MacGrath	Artillery	Curator of Artillery, Royal Armouries
Jackie McKinley	Human bone	Osteoarchaeologist, Wessex Archaeology
Lorraine Mepham	Finds specialist, ceramics	Finds & Archives Manager, Wessex Archaeology
Keith Miller	Army weapons, equipment and vehicles	Head of Weapons, Equipment and Vehicles, National Army Museum
Rachel Mulhearn	Maritime archaeology	Curator of maritime history/deputy head of Merseyside Maritime Museum
Nigel Nayling	Maritime archaeology and dendrochronology	Department of Archaeology and Anthropology, University of Wales at Lampeter
Richard Noyce	Royal Naval artefacts	Curator of Artefacts, Royal Naval Museum
Richard Sabin	Cetacean remains	Curator, Mammal Curation Group, Natural History Museum
Graham Scott	Ship archaeology and underwater fieldwork	Senior Archaeologist (Coastal and Marine), Wessex Archaeology
Andy Simpson	Military aircraft	Curator, Aircraft and Exhibits Department, RAF Museum
Mike Simms	Geology and fossils	Curator of Palaeontology, Ulster Museum
John Stedman	Archaeological Artefacts	Local History officer, Portsmouth Museums and Records Service
Rob Webley	Archaeological Artefacts	Finds Liaison Officer (Hampshire)
Steve Webster	Ship archaeology and underwater fieldwork	Senior Project Manager (Coastal and Marine), Wessex Archaeology
Bjorn de Wilde	Geology and Pleistocene mammals (North Sea)	Dutch Study Group on Pleistocene Mammals
Lynn Wootten	Conservation	Project Officer, Wessex Archaeology

Liaison and Accessibility

Details of each discovery have been sent to:

- David Hilton, NMR and EH Maritime Team;
- Serrena Cant, NMR
- Mark Russell, BMAPA;
- Mike Cowling, The Crown Estate;

Details of discoveries regarded as wreck under the Merchant Shipping Act 1995 have been forwarded to the Receiver of Wreck:

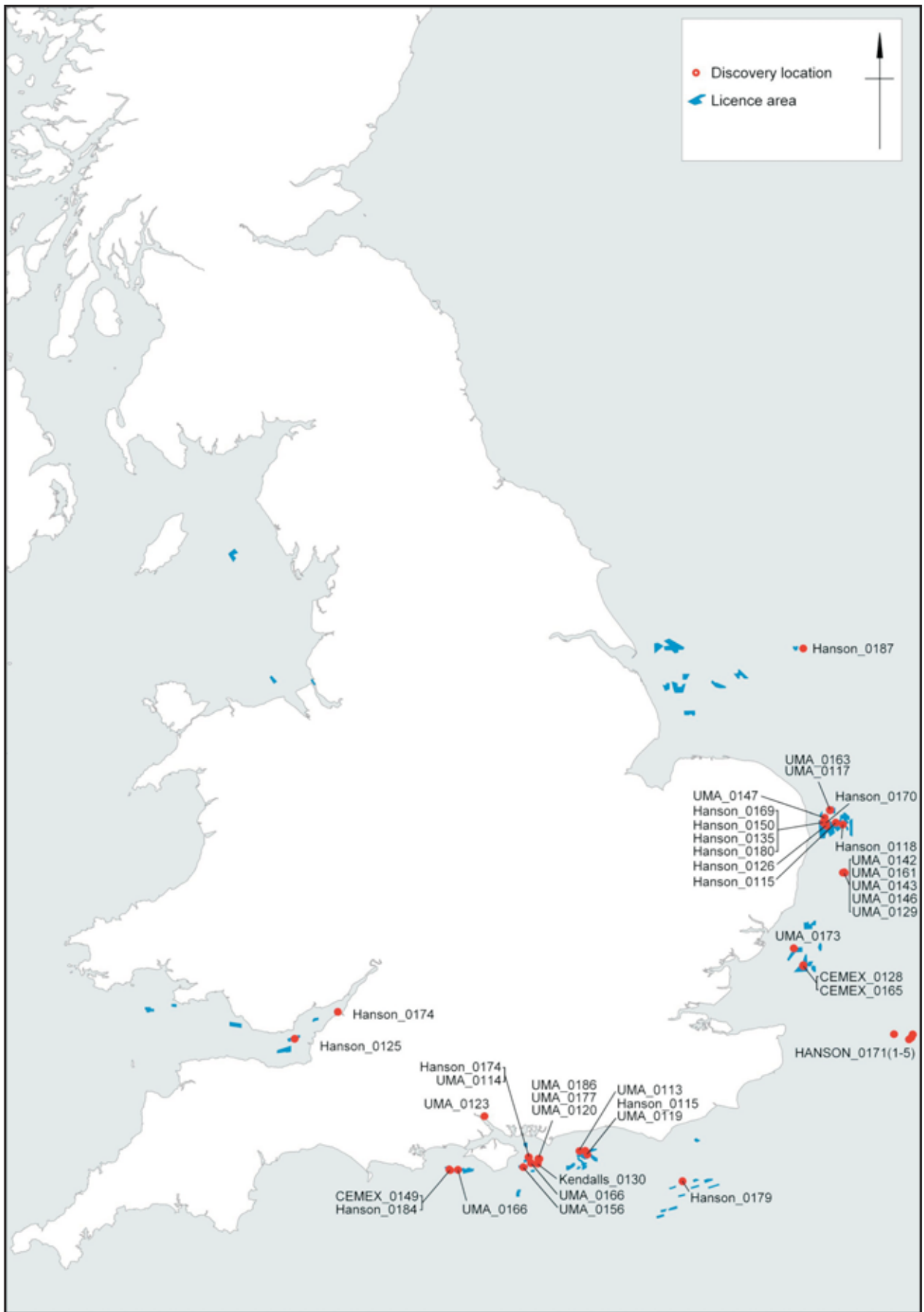
- Hanson_0115
- Hanson_0118
- UMA_0120
- UMA_0123
- Hanson_0125
- UMA_0127
- UMA_0129
- Kendalls_0130
- Hanson_0135
- UMA_0140
- UMA_0141
- UMA_0142
- UMA_0143
- UMA_0145
- UMA_0146
- UMA_0147
- UMA_0154
- UMA_0161
- UMA_0163
- UMA_0164
- UMA_0166
- UMA_0173
- UMA_0176
- UMA_0177
- Hanson_0179
- Hanson_0184

In the third year of the Protocol, no discoveries relating to military wrecks or aircraft were made that would need to be forwarded to the Ministry of Defence.

Although we have received a number of artefacts relating to vessels, none of them conclusively relate to unknown and uncharted wreck sites. For example, while the Admiralty anchor (Hanson_0125) is most certainly to have derived from a vessel, it may have come to be on the seabed as a result of having been cut free after snagging rather than indicative of a wreck site. As such, no discoveries were found that are positively related to uncharted wreck sites and as such there was no need to forward any reports to the United Kingdom Hydrographic Office.

Data has also been sent to the appropriate PAS Finds Liaison Officers and to the Local Government Archaeology Officers and SMR/HER in the county off which the discovery was made.

Further details of liaison and the return of data to interested parties are included in the wharf reports appended to this report.



Location of discoveries 2007-2008

Discussion

Importance

During the year 2007-2008 over 162 individual artefacts have been reported through the Implementation Service. Of this total, 3 finds were identified as natural stone and were omitted from the Protocol procedure. The map opposite illustrates the distribution of the remaining finds reported through the Implementation Service during the year 2007-2008. Reporting and mapping these discoveries will enable the identification of the distribution of types of finds that will assist archaeologists in the identification of archaeologically sensitive areas of the seabed.

All reported discoveries will contribute to increased understanding of the historic marine environment around England and the distribution of archaeological artefacts in English waters. Reporting finds under the Protocol contributes to the fulfilment of conditions attached to dredging permissions and other legal obligations as well as constituting best practice.

Key Issues

A number of issues have been raised over the past year that WA has begun to address to improve the usability and efficiency of the Implementation Service.

Initial Reports

In the 2006-7 Annual Report it was noted while most reports are filled out clearly and photographs of the finds are attached, the date and position information are sometimes not completed. In the third year of the Protocol, the initial reports have increased significantly in quality, particularly with regards to the photographs of finds which are seldom without scales placed adjacent to the objects. The details provided for each find is also increasing. As an instance, the diameter and weight of the cannon balls discussed earlier in the case study are often reported through the Protocol, greatly aiding interpretation of such finds. However, there are still some instances in which key aspects of information are left incomplete. If these are unknown then this should be explicitly stated.

Where possible, the inclusion of trackplots attached as jpps or ArcGIS shapefiles with the photographs would be extremely useful, as they enable WA to position the locations of finds more accurately than simply using the centre point of the licence area. This provides the potential for highlighting trends in the distribution of finds on the seabed. However, it is appreciated that locations of finds that are discovered at wharves cannot be accurately known.

Munitions

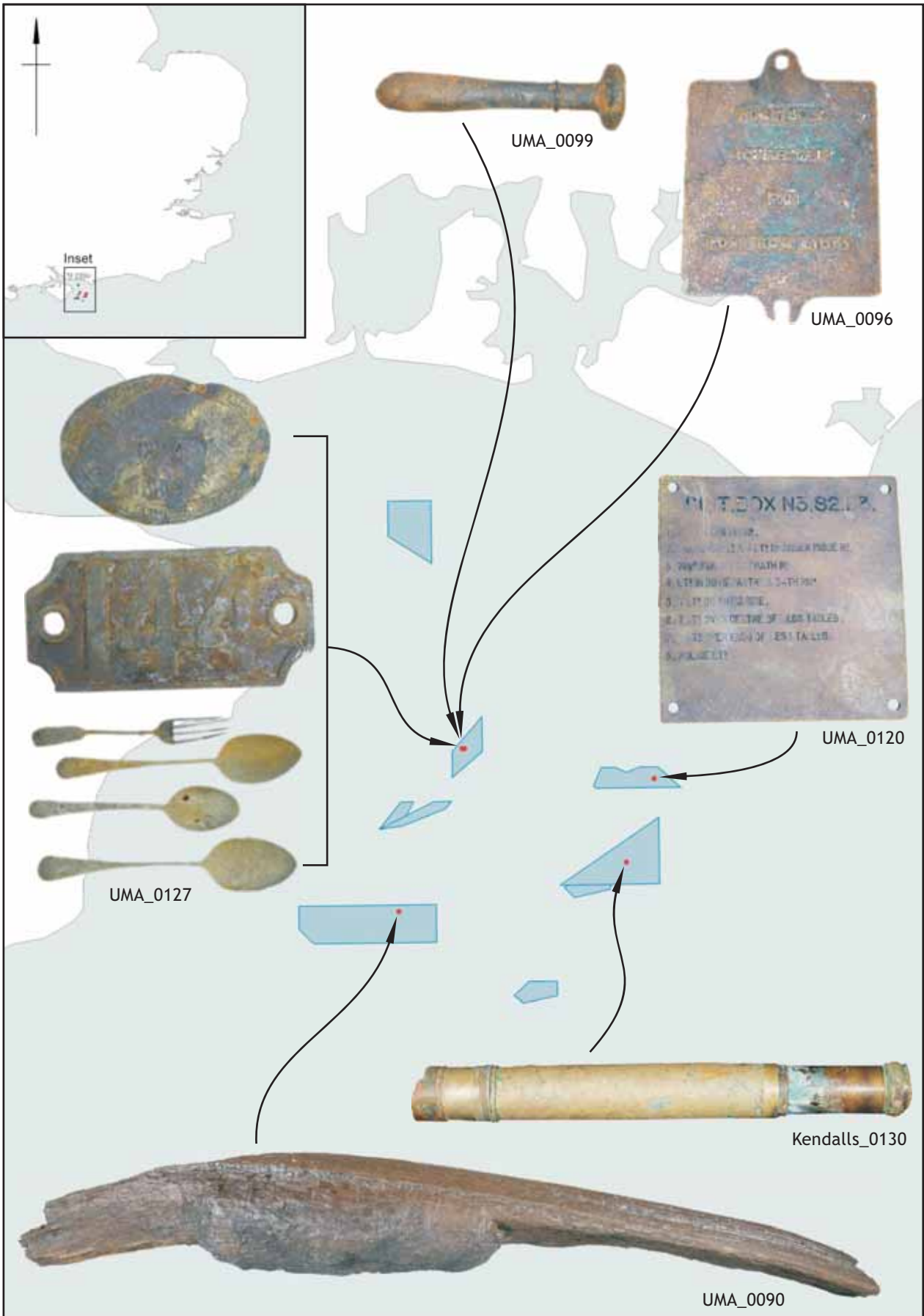
Other than cannon balls, munitions should only be reported through the Implementation Service once the appropriate identification and where necessary disposal actions have been completed under the protocols defined in the munitions Guidance Note. If in doubt, always treat a suspicious find as potentially dangerous, and report it through the processes set out in the munitions Guidance Note accordingly.

Where munitions are encountered, records should be kept of their discovery and where available as a result of information provided to/by the appropriate personnel (normally military EOD staff) the identification of the item and any measurements or photographs should be included in an initial report lodged through the Implementation Service.

Newsletter

The "Dredged Up" newsletter has been produced twice a year to provide wharf and vessel staff with feedback on the finds reported through the Protocol over the previous six months and it is hoped that this will continue. This informs staff of the finds made at other wharfs and vessels and also gives them an opportunity to see that their own finds are publicised to others. In addition, it is a useful way to inform industry staff of updates to the Protocol and Awareness Programme. It is hoped that funding can be found to continue this beyond the life of the Extension to the Awareness Programme.

The Newsletter is also proving a useful tool to publicise the Protocol and the importance



Location of finds relating to vessels

of the finds made and reported through the Implementation Service. Copies are distributed by EH to a variety of other organisations and individuals in addition to the industry staff already involved.

Artefact Patterns and Distributions

Since the Protocol began in 2005, WA has received a total of 109 reports through the Implementation Service, encompassing at least 589 individual artefacts. Having completed its third year of running, an assessment of the artefacts reported through the Protocol has been conducted to consider any patterns of distribution associated with the finds.

There are eight aggregate dredging regions around the coast of Britain, comprising of the following:

- The Humber
- The East Coast
- The Thames Estuary
- The East English Channel
- The South Coast
- The Owers
- The South West
- The North West

To date, the vast majority of finds reported through the Protocol were discovered within the South and East Coast dredging regions. Due to the limited number of reports referring to the remaining 6 regions, it is not possible to ascertain any patterns of distribution for the finds discovered within these regions at this date.

Through an assessment of the finds reported from the South and East Coast dredging regions, various patterns of artefact distribution were noted. Since the Protocol began in 2005, a number of reports relating to aircraft crash sites have been submitted, suggesting a relatively high potential for such finds within the South and East Coast dredging regions. In its third year of running, only three reports (Hanson_0118, Hanson_0135 and UMA_0156) describe finds that may have derived from an aircraft. However, the distribution of these finds suggests a continuing trend in the potential for finds relating to aircraft to be discovered in the South and East Coast regions.

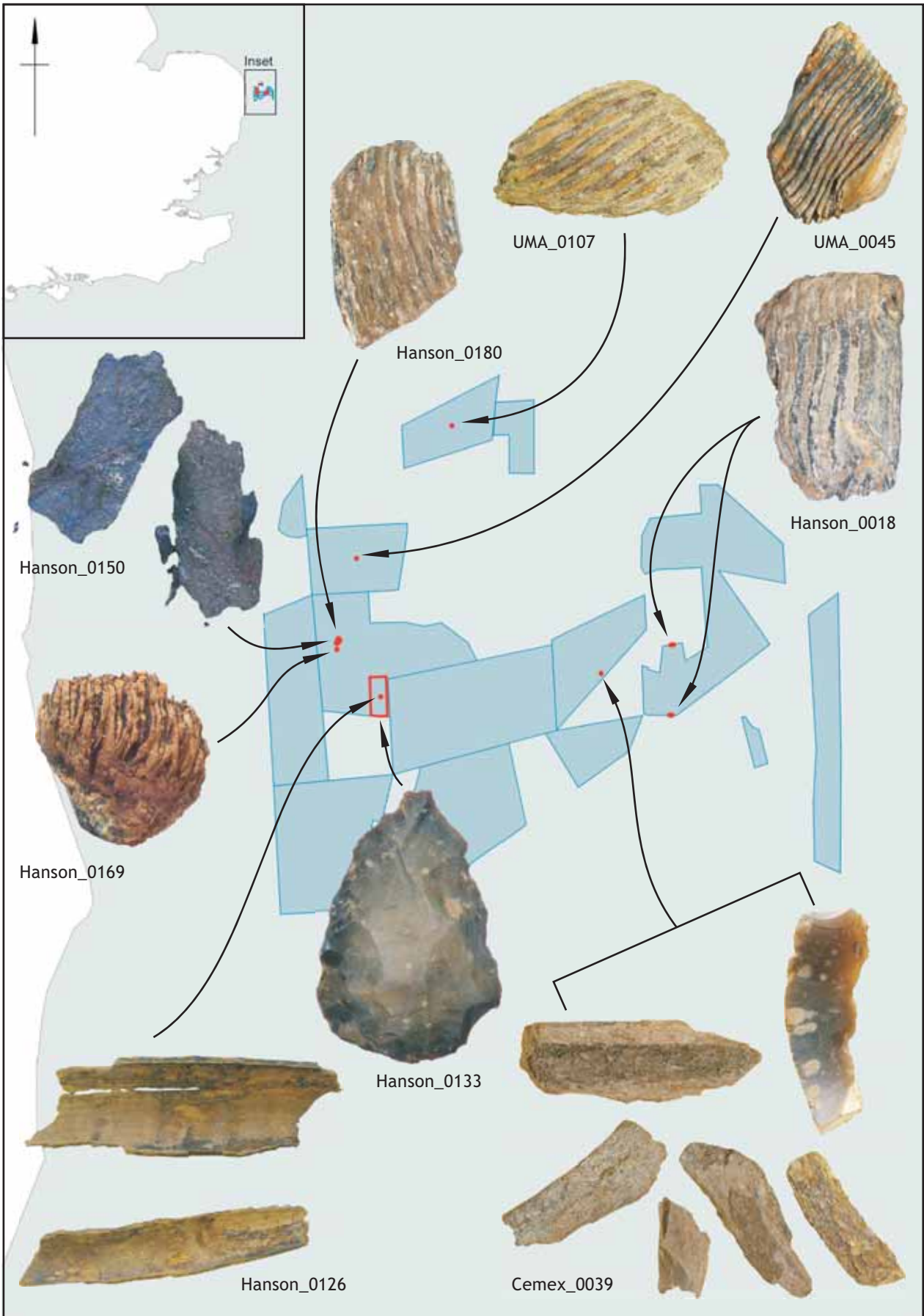
Finds within the South Coast predominantly comprise of Nab Tower Finds, which are thought to have derived from a spread of World War II demolition rubble extending over several kilometres square across Licence Areas 122/2 and 122/3. However, through a consideration of these finds alongside those dredged from other South Coast Licence Areas, more specific patterns of distribution may be highlighted.

Within the South Coast Licence Areas located to the east of the Isle of Wight, a relatively high volume of artefacts relating to the remains of vessels have been observed. Since the Protocol began in 2005, at least 7 reports describing finds thought to have derived from a vessel have been submitted through the Implementation Service.

A number of these finds have been inscribed with a broad arrow mark, indicating that they originated from the Board of Ordnance. The Board of Ordnance was a government organisation which issued ordnance and warlike stores to the Army and Navy and was abolished in 1855. The use of the broad arrow marked continued for some time by the War Office, which took over the duties of the Board. Within this vicinity, at least 3 objects (described in reports UMA_0099, UMA_0127 and Kendalls_0130) comprising of an unidentified metal object, a spoon and an admiralty telescope, are inscribed with the broad arrow mark.

In addition to these finds, a further 3 artefacts dredged from this vicinity are seen to contain specific references to vessels. One such find includes a brass plate (UMA_0096) inscribed with the text '*portable connection for port bow light*'. Another comprises of a brass plate cover (UMA_0120) inscribed with the text '*lights on the ships side*'. A plaque (UMA_0127) inscribed with the text '*Royal Navy Mess No. 4*' was also discovered from this area. A ship's timber (UMA_0090), thought to derive from a carvel vessel, was also discovered within this vicinity.

It is not being suggested that each of the finds discussed above represents one single wreck site. However, these finds certainly indicate the potential for the discovery of vessel remains within the Licence Areas located to the east of the Isle of Wight. The Solent has



Location of prehistoric finds

long been an area of high shipping activity, and of all the vessels that ventured across this area, it can be assumed that many are likely to have wrecked and foundered, as a result of collision, war or natural causes. Finds relating to the remains of vessels thus have the potential to pinpoint previously unknown and uncharted wreck sites within the vicinity.

Artefact patterns of distribution may also be noted within the East Coast dredging region. The most notable artefact distribution within this region refers to the prehistoric finds discussed in the Case Study 1 above. This collection of over 28 handaxes and faunal remains (Hanson_0133) discovered within material dredged from Licence Area 240 suggests the potential for prehistoric remains within the East Coast dredging region. However, a consideration of these finds in conjunction with previous discoveries reported through the Protocol further highlights this potential, indicating the importance of the East Coast dredging region as an area rich in submerged prehistoric finds and evidence relating to the submerged prehistoric landscape.

In addition to the struck flint and faunal remains reported as Hanson_0133, a number of mammal remains discovered within this region have been reported through the Protocol since it began. These finds include 2 sections of de-laminated mammoth tusk (Hanson_0126) and 3 mammoth teeth (Hanson_0169, Hanson_0180) discovered in the same Licence Area as Hanson_0133 (Area 240). Two further mammoth teeth (UMA_0045 and UMA_0107) were discovered in adjacent Licence Area 254 and Licence Area 296, approximately 5km north of Area 240. A collection of Ice Age mammal remains (Hanson_0018) including mammoth teeth have also been discovered within this vicinity in material dredged from Licence Area 361, approximately 6km east of Area 240. The remains of mammoths occur from the Wolstonian ice age (380,000 to 130,000 years ago) to the end of the Devensian ice age (c. 10,000 years ago) although there are few dated examples. Such remains are relatively rare in Britain, and thus the discovery of these finds is of great significance, highlighting the potential for prehistoric finds within the East Coast.

Although it is not known exactly how the handaxes and mammal remains came to be on the seabed, it is possible that they date to a time when the seabed was exposed as dry land. Over the last 700,000 years, there have been three main ice ages within Britain. During an ice age, a larger proportion of the world's water becomes incorporated into ice sheets. This results in a fall in sea level. During the height of the last ice age, known as the Devensian (c.18,000 years ago), it has been estimated that the sea level was approximately 120m lower than it is today, exposing areas of the North Sea as dry land.

The discovery of peat concentrations within the East Coast dredging region are also of great significance here. Since the Protocol began, 2 reports regarding peat concentrations in the East Coast dredging region have been submitted through the Implementation Service. These consist of an eroding peat layer (CEMEX_0039) discovered in Area 360, approximately 3km east of Area 240, and peat concentrations (Hanson_0150) which derived from Area 240. Peat is a brown fibrous soil that formed when the sea level was so low that the seabed formed marshy land. As such peat deposits can inform us of the sea level changes that took place in the past. In addition to this, by containing microscopic plant remains, peat can help us to understand the kind of landscape inhabited by our predecessors. Through an examination of the peat deposit reported as CEMEX_0039 it was revealed to contain wood, mineralised bone, antler and a single piece of struck flint thought to have eroded out of a peat layer more than 10,000 years ago.

The discovery of peat concentrations alongside prehistoric artefacts and mammal remains within the East Coast dredging region is incredibly significant. These finds reported through the Protocol to date indicate a predominance for prehistoric remains on the East Coast, suggesting a potential for submerged prehistoric landscapes and thus for archaeological artefacts to be discovered *in situ* within their primary context.

Outreach Collection

During the wharf visits conducted as part of the extension to the Protocol Awareness Programme 2007-8, it became apparent that a large number of finds were being stored in buckets at various wharves, taking up an increasing amount of room. In addition to this, a number of members of staff at the wharves expressed their confusion regarding 'the next step' with such finds. Following the appointment of Gemma Ingason as Wessex Archaeology's Coastal and Marine Education and Outreach Officer, a suggestion has been put forward that any finds reported through the protocol may be donated or lent on a temporary basis to the Coastal and Marine Outreach Collection. The decision to offer finds to the collection can only be made by the Nominated Contacts if the finds are rightfully the property of the dredging companies, and the Receiver of Wreck has not found an alternative owner for the finds.

As part of the Outreach Collection, the finds will provide visual aids for the Heritage Lottery Funded (HLF) Time Travelling by Water (TTBW) project. Details of the project can be found at:

<http://blogs.wessexarch.co.uk/ttbw/about/>

The aim of TTBW is to provide learning and access to the wealth of information that has been generated over the past two decades at Wessex Archaeology's Coastal and Marine section. The project initially launches in the South-West and is tailored to fit the national Key Stage 2 and Key Stage 3 curriculum, catering for children aged 7 to 14. The workshops are centred around key topics relating to the marine historic environment, including aircraft crash sites, submerged prehistory and seafaring. Talks about the work of our Coastal and Marine department are also available for adult audiences.

A number of finds have already been donated to the Outreach Collection, and the response from the children at the TTBW workshops has been extremely encouraging. Through handling the finds discovered by wharf and vessel staff, the children are not only taught about archaeology, but are able to experience it first hand, greatly enhancing their learning experience. So if you have a number of finds lurking in buckets of water around your wharf, please feel free to donate them to the outreach Collection! For further information, please contact Gemma Ingason:

g.ingason@wessexarch.co.uk

Conclusion

The large increase in the number of finds being reported in 2007-2008 illustrates the success of the Protocol and the Implementation Service and the commitment of staff in the BMAPA companies to promoting a responsible attitude to the marine historic environment. Operational issues are still a factor in that at busy wharves it is often difficult to be sure as to which load a find originates from, however this is partially overcome by the enthusiasm and vigilance of the wharf staff.

One of the objectives of the Implementation Service is to develop a database of finds over the years and look for trends and clusters so that a view can be taken as to the implications of such material for future licence management, renewal or new applications in the region. Although more data is required to draw firm conclusions regarding artefact patterns and distributions, an assessment of the quantity of prehistoric finds within the East Coast dredging region and finds relating to the remains of vessels within the South Coast dredging region enable these potentially archaeologically sensitive areas to be monitored. As more data is gathered, these areas alongside others will be continually reviewed in order to protect the marine historic environment against the impacts of aggregate dredging operations.



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Protocol for Reporting Finds of Archaeological Interest



UMA_0112_a: Metal Fittings and Fixtures

These objects were discovered by N. C. Sait at UMA's Southampton Wharf. They were discovered within material dredged on 3rd October 2007 from Licence Area 127 off the Isle of Wight.

These artefacts were discovered in material dredged from licence area 127 in the Isle of Wight dredging region. The precise function of the metal artefacts is unknown. However, photographs of the finds have been sent to Lorraine Mephram, Wessex Archaeology's Finds Manager. Lorraine described the finds as modern 'fittings'.

Although the origin of these fixtures and fittings is unknown, it is largely thought that they derive from a domestic context. A large spread of rubble has been noted from licence area 122, approximately 48km east of licence area 127. This spread of material is thought to cover several square kilometres, covering an area to the south of the Portsmouth coast and to the west of Nab Tower. At present it is thought that this rubble accumulated due to the dumping of domestic scrap and demolition debris during or in the aftermath of WWII. Although not discovered within licence area 122, the discovery of these metal fittings within the Isle of Wight region suggests that they may represent part of this domestic scrap.

However, the possibility that these finds derive from an aircraft crash site or shipwreck cannot be ruled out. Aircraft and vessels are significant aspects of the marine historic environment and are extremely important to archaeologists as they inform us of the historic development of flight and the construction of watercraft accordingly. Moreover, all crashed military aircraft are protected by law under the Protection of Military Remains Act 1986 and the Merchant Shipping Act 1995 states that all items of wreckage are to be reported to the Receiver of Wreck.

These fittings appear to comprise isolated finds. However, the discovery of further remains in the area should be reported immediately, as not only may they greatly aid interpretations of these finds, but they could potentially locate a previously unknown crash site or wreck.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The National Monuments Record
- The Historic Environment Record for the Isle of Wight
- The Local Government Archaeology Officer for the Isle of Wight
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0113_a: Bone and Wood

These finds were discovered by Arthur Farmiloe at UMA's Bedhampton Wharf. They were found in material dredged on 28th September 2007 from Licence Area 396, some 17km south-west of Worthing.

Through an examination of the photographs provided, the larger fragment of wood measures approximately 50cm in length and 12cm in width while the smaller fragment measures approximately 30cm in length and 12cm in width at its widest point. The bone is approximately 24cm in length and 4cm in width.

Due to the limitations imposed by analysing finds from photographs, neither the bone fragment nor the wooden objects have been conclusively identified. Photographs of the bone fragment were sent to Andy Currant at the Natural History Museum. Unfortunately he was unable to offer any further information on the find. It appears to be an animal long bone and although it looks burnt in the photograph, it is likely to have been stained after a lengthy duration within dark sediment.

Photographs of the wooden fragments were sent to timber specialist Nigel Nayling at the University of Wales. He noted that neither piece of timber exhibit any fastenings, and it could not be ascertained whether either piece had been worked without a closer inspection. Andy suggested that the larger of the wooden fragments might be oak.

The origin of these finds is unknown. However, the possibility that the timber pieces derived from a vessel should not be ruled out. It is also possible that the bone came to be on the seabed as a result of a shipwreck or through waste disposal, as animals were often carried on board ships as cargo or provisions. If the two finds are associated, they may represent the remains of a vessel which carried animals on board. Whilst this is possible, the finds appear to be isolated and are therefore not necessarily suggestive of a coherent wreck site. Alternatively, the bone may date to a time when the seabed was dry land. Any further remains from the area should be reported immediately, as they may aid the interpretations of these finds and could enhance the potential for pinpointing an unknown wreck site.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The National Monuments Record
- The Historic Environment Record for West Sussex
- The Local Government Archaeology Officer for West Sussex
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



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Protocol for Reporting Finds of Archaeological Interest



Hanson_0115_a: Possible Anchor Stock

These finds, reported on the 29th October 2007, were discovered by Bob Lovell onboard Hanson's *Arco Adur* vessel. The objects were found lying in the forward screen outlet below the boiling box of the vessel, and as such, the licence area from which they were dredged is unknown.

During the week these finds were discovered, the *Arco Adur* was operating in the East coast dredging region and area 435 in the Owers dredging region. Three pieces of iron were discovered in total. Photographs of the three pieces of iron were circulated around staff within the Coastal and Marine unit of Wessex Archaeology. It was suggested that one of the pieces of iron (shown above) may represent part of a stock from a fisherman's type anchor, otherwise known as a kedge anchor. Kedge anchors were used for light work onboard working ships. They usually had removable stocks to save space.

This piece of iron in particular appears to represent the bent style of stock which was made so that the stock could be taken off, allowing the anchor to be compactly stowed on deck or over the rails (Stone 1993:8). The removable nuts would be taken off the tips, the stock would be pulled through the shank until the bend and then swivelled down and around, so that it was flush with the arms. It has not been possible to identify two of the pieces of iron, although they certainly don't demonstrate any characteristics that suggest that they are also part of an anchor.

Anchors are sometimes the first signs of a shipwreck. In this case, this possible anchor stock appears to represent an isolated find and as such is not necessarily indicative of a coherent wreck site on the seabed. It may have come to be on the seabed having been snagged and cut free. However, the discovery of further material in the area has the potential to locate an unknown wreck site, and wharf and vessel staff should be advised to keep their eyes open for such finds.

References:

Stone, D.L., 1993, *A wreck diver's guide to sailing ship artifacts of the 19th century*. Columbia: Underwater Archaeological Society of British Columbia

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estates
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for Suffolk and West Sussex
- The Local Government Archaeology Officer for Suffolk and West Sussex
- The Finds Liaison Officer (Portable Antiquities Scheme) for Suffolk and Sussex



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0117_a: Femur Fragment

This bone was discovered at UMA's Erith Wharf by Graham Burbeck. It was found in material dredged on the 31st October 2007 from licence area 296, off the coast of Norfolk.

This bone fragment is approximately 26cm in length. Photographs of the bone were sent to Richard Sabin in the Recent Mammal Section in Zoology at the Natural History Museum. Richard identified the bone as a large fragment of a right-side femur, otherwise known as an upper leg bone.

Unfortunately, due to a great deal of rolling and abrasion on the seabed, the more diagnostic features of the bone which are essential in enabling bone specialists to specifically identify such fragments have worn away. As such, Richard has suggested that the bone fragment may have derived from either a large bovid, such as a cow or big cervid such as a giant deer.

It is not known how this bone came to be on the seabed. Animals were often carried on board ships as cargo and provisions, and as such it is possible that this fragment ended up on the seabed as a result of a shipwreck or through simple waste disposal. Animal remains may also end up in marine contexts having been washed from terrestrial deposits by rivers or eroded from cliffs or beaches.

Alternatively the bone may date to a time when the seabed was dry land. During an ice age, a larger proportion of the world's water becomes incorporated into ice sheets resulting in a fall in sea level. For example, at the height of the last ice age known as the Devensian, c.18,000 years ago, sea level was approximately 120m lower than it is today. During these times, parts of the North Sea were exposed as dry land.

The discovery of further material from this area should be reported immediately, as it could potentially identify an unknown shipwreck or archaeological site on the seabed.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The National Monuments Record
- The Historic Environment Record for Norfolk
- The Local Government Archaeology Officer for Norfolk
- The Finds Liaison Officer (Portable Antiquities Scheme) for Kent



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



Hanson_0118_a: Aircraft fuel gauge, wooden sheave and bone fragments

These artefacts were reported on 22nd November 2007 having been found at Hanson's SBV wharf. They were discovered in material dredged from Licence Area 242, approximately 26km east of Great Yarmouth.

The finder and date on which these items were dredged is unknown. Photographs of the bone fragments were sent to Jessica Grimm, Wessex Archaeology's Animal Bone specialist, and Richard Sabin and Andy Currant from the Natural History Museum. Unfortunately, none of the specialists were able to identify the bone fragments from the photograph provided. Bone fragments may come to be on the seabed for a number of reasons. Animals were often carried onboard ships as cargo or provisions, and thus the discovery of bone may indicate a shipwreck or may simply represent waste disposal. Alternatively they may date to a time when the seabed was revealed as dry land.

The semi-circular timber fragment shows clear signs of working. This fragment may represent a wooden sheave, the name given to a wheel or disk with a grooved rim used as a pulley as part of a ship's rigging system. Incidentally, a similar wooden sheave (Hanson_0008_b) was discovered in licence area 361 which is directly adjacent to area 242, situated to its west. The other timber item may also be worked although this cannot be ascertained from the photograph. It is possible that these finds derive from a vessel, and potentially a wreck site.

An artefact described as the back of an aircraft fuel gauge was also found. The object is inscribed with the word 'Smiths' and the letters 'MA'. This suggests that the object was manufactured in Britain by S. Smiths and Sons (Motor Accessories) Limited, a company which manufactured fuses and aircraft instruments during the First and Second World Wars. This find may indicate that there is an aircraft crash in the area.

Each of the finds above may relate to an important archaeological site on the seabed. Consequently, a close watch needs to be kept on material in this licence to ensure that if these sites do exist, it is possible to locate and protect them.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estates
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for Norfolk
- The Local Government Archaeology Officer for Norfolk
- The Finds Liaison Officer (Portable Antiquities Scheme) for Norfolk



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0120_a: Brass Objects

These artefacts were discovered by Darren Taylor at UMA's Bedhampton wharf. They were discovered in material dredged on the 9th November 2007 in licence area 395/1, approximately 18km east of the Isle of Wight.

The 5 brass fixtures and fittings (left) measure approximately 10cm in length and 5cm in width. The 'shoe horse' shaped brass object (top right) is approximately 14cm wide at its widest point. The brass fuse plate cover (bottom right) measures approximately 15cm x 16cm.

Having taken a closer inspection of the photographs, it became apparent that the brass fuse plate is inscribed with text. With some text referring to *lights on the ships side* and *lights over the mess tables*, it became apparent that the fuse plate derived from a vessel. Although the function of the fixtures and fittings is unknown, it is quite possible that they are associated with the fuse plate and as such may too derive from a vessel.

Possibly the most interesting of the text on the fuse plate refers to the *lights in the boys' pantry and bathrooms* or the *fans in the boys' bathroom*. The word 'boys' may refer to 'boy seamen', a term used to describe the young male members of Admiralty-run training establishments. These establishments provided pre-sea training facilities for boys, preparing them for service in the Royal Navy. The training establishments used the hulks of old warships for accommodation and class room space, and it is possible that these brass finds may derive from one of these vessels. As the brass plate refers to electric light, the vessel is unlikely to date before the early 20th century.

At present these objects appear to comprise isolated finds, and as such do not necessarily indicate the presence of a coherent wreck site on the seabed. However, it is paramount that any further finds from the area are reported immediately, as they have the potential to pinpoint a hitherto unknown wreck site.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for the Isle of Wight
- The Local Government Archaeology Officer for the Isle of Wight
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0122_a: Possible Metal Dog's Head

This find was discovered by Gary Cooper at UMA's Bedhampton wharf. The object was discovered in material dredged on the 29th November 2007 from licence area 395/1, approximately 12km off the east coast of the Isle of Wight.

This unusual artefact was described by wharf staff as a metal ornamental dogs head. The object is approximately 10cm in length. Photographs of the find were circulated around staff in the Finds Department and Coastal and Marine unit at Wessex Archaeology. Unfortunately, no one was able to provide a positive identification of the artefact. Following this, photographs of the object were sent to the Finds Liaison Officers (Portable Antiquities Scheme) for Hampshire, Rob Webley, and the Isle of Wight, Frank Basford.

Unfortunately, through an examination of the photograph alone, the Finds Liaison Officers were unable to provide a more conclusive identification of the object than that provided by wharf staff. All of those who viewed the images confirmed that the object certainly had 'dog-like' characteristics. Rob Webley suggested that the dog's head may have derived from a lead garden figurine and was unlikely to be more than 200 years old. Others suggested that the dog's head may have come from the top of a walking stick.

Unfortunately at present we are unable to provide a confirmed identification of this artefact. There is nothing to suggest whether or not the object derived from a vessel, or came to be on the seabed through eroding from a terrestrial deposit. However, this does not necessarily negate the importance of the find. The discoveries of further artefacts in the area have the potential to aid this interpretation which in turn will enable us to fully understand its archaeological importance.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The National Monuments Record
- The Historic Environment Record for the Isle of Wight
- The Local Government Archaeology Officer for the Isle of Wight
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0123_a: Concretion

This concretion was discovered by N.C.Sait at UMA's Southampton wharf. The find was reported on the 2nd January 2008. The dredging area and the date on which this find was discovered are unknown.

The staff at UMA's Southampton wharf suggested that this concretion may represent one or two cannon balls with extensive concretion. Photographs of the find were sent to Philip Magrath, the Curator of Artillery at the Royal Armouries Museum. Unfortunately, he stated that it was impossible to ascertain whether this find represents round shot as the extensive concretion obscured positive identification of the artefact.

Concretions can easily obscure the shape of the object within, often making them impossible to identify. However, it is extremely important that concretions should not be dismissed as unimportant simply because they cannot be identified. Concretions can also obscure the true size of an object. If part of the concretion is broken off and the bare metal is visible below, providing the depth measurement of the concretion can be extremely useful in identifying the artefact. Unfortunately it was not possible to ascertain the depth of the concretion in this case. However, through taking an X-Ray of a concretion, it may be possible to identify the object within.

Although it cannot be proved at present, it is quite possible that this concretion represents round shot. Round shot, such as cannon balls, are extremely important to archaeologists as they may relate to the location of a battle or of a shipwreck. After a ship has been wrecked, elements such as timber often erode away leaving only the more durable items. Consequently, older shipwrecks in high energy environments are often represented solely by cannon and concreted shot on the seabed. Even reports of individual cannon balls can therefore tell us much about warfare at sea and potentially pinpoint the location of an unknown shipwreck.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for Hampshire
- The Local Government Archaeology Officer for Hampshire
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



Hanson_0125_a: Admiralty Anchor

This anchor was discovered by M. Forster onboard Hanson's vessel the *Arco Dart*. It was discovered in material dredged from licence area 377, approximately 9km south of Cardiff. The anchor was reported through the protocol on the 2nd January 2008.

This anchor is the largest find that has been reported through the EH/BMAPA Protocol to date! Staff onboard the *Arco Dart* identified the anchor as an Admiralty anchor. Photographs of the find were sent to Richard Noyce, the Curator of Artefacts at the Royal Naval Museum, who confirmed this identification.

The Admiralty Pattern was developed in England in 1841 by Admiral Sir William Parker (Curryer 1999:77). It was a standard type of anchor used by both navies and merchantmen alike, and often nicknamed the 'common stock anchor' (Stone 1993:8).

This type of anchor was originally wooden-stocked, while later examples appear to be iron-stocked. The lack of a stock on this anchor may imply that it originally had a wooden stock which eroded. As such, it may represent an earlier form of the Admiralty Pattern, dating to the mid-nineteenth century.

Anchors are sometimes the first signs of a shipwreck. At present, this anchor appears to be an isolated find. It may have come to be on the seabed having being cut free after snagging. As such it does not necessarily indicate the presence of a coherent wreck site. However, if further finds are discovered in the vicinity they should be reported immediately. Further archaeological discoveries have the potential to pinpoint a previously unknown wreck site.

References:

Curryer, B. N., 1999, *Anchors: An Illustrated History*. London: Chatham Publishing.

Stone, D., 1993, *A Wreck divers guide to sailing ship artefacts of the 19th century*. Columbia: Underwater Archaeological Society of British Columbia.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estates
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for Bristol
- The Local Government Archaeology Officer for Bristol
- The Finds Liaison Officer (Portable Antiquities Scheme) for Bristol



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



Hanson_0126_a: Mammoth Tusk Fragments

These fragments were found by Henk Strijdonk at Hanson's SBV wharf. They were discovered in material dredged on the 12th December 2007 in licence area 240, approximately 11km south-east of Great Yarmouth.

The staff at Hanson's SBV wharf reported these finds as two curved sections of tusk. Photographs of the fragments were sent to Richard Sabin and Andy Currant, specialists from the Natural History Museum, who were able to confirm this identification.

The finds have been identified as de-laminated naturally curved sections of tusks which are thought to have derived from a mammoth. Mammoths are relatively rare fossils in Britain. They occur from the Wolstonian ice age (380,000 to 130,000 years ago) to the end of the Devensian ice age (c. 10,000 years ago) but there are few dated examples. Unfortunately it is not currently possible to confirm a date for these sections of tusk.

These tusk fragments may have come to be on the seabed having been washed from terrestrial deposits by rivers or eroded from cliffs or beaches. Alternatively, they may date to a time when the seabed was dry land. During the last ice age (the Devensian) a greater proportion of the world's water was incorporated into ice sheets, resulting to a fall in sea level which was approximately 120m lower than it is today. As a result, large expanses of land now forming on the seabed of the North Sea were revealed as dry land. At the end of the ice age, the ice sheets melted resulting in a rise in sea level which once again submerged these areas.

We have recently received a number of reports relating to prehistoric activity off the coast of Great Yarmouth. Investigations are currently underway assessing the nature of these finds. Consequently, it is of the utmost importance that any further finds be reported through the protocol immediately. Such artefacts have the potential to locate a previously unknown submerged prehistoric landscape which would be of international archaeological significance.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for Norfolk
- The Local Government Archaeology Officer for Norfolk
- The Finds Liaison Officer (Portable Antiquities Scheme) for Norfolk



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CEMEX_0128_a: Bone Fragments

These finds were discovered by R. Socharki, onboard the CEMEX vessel the *Sand Harrier*. They were found within material dredged from licence area 113/1, approximately 32km south-east of Clacton-on-Sea. They were reported through the protocol on the 21st January 2008.

Photographs of these bone fragments were sent to Richard Sabin, Curator of Mammals at the Natural History Museum. He suggested that the fragments are cetacean – a type of mammal most fully adapted to aquatic life, such as a whale or dolphin. In addition to this, Richard identified the fragments as possible sections of lower jaw and/or rostrum, which is the anatomical structure resembling a birds beak, such as the snout of a dolphin.

Unfortunately it is not possible to ascertain a date for the bone fragments from the photograph. However, if the fragments were confirmed to be prehistoric they have the potential to inform us of the coast configuration in the past. During an ice age, a larger proportion of the world's water becomes incorporated into ice sheets, resulting in a fall in sea level. Following an ice age, the ice sheets melt and the sea levels rise. If well positioned and dated cetacean bone fragments were discovered, they would therefore have the potential to inform us of which areas were submerged during particular times in prehistory.

The Natural History Museum has been recording cetacean remains since 1913 and all items of cetacean bones reported through the protocol are being forwarded to the Museum for their records. Consequently, bone fragments such as these are important as they contribute to a national understanding of cetacean occurrences throughout prehistory to the present day.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The Natural History Museum
- The National Monuments Record
- The Historic Environment Record for Essex
- The Local Government Archaeology Officer for Essex
- The Finds Liaison Officer (Portable Antiquities Scheme) for Essex



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



Kendalls_0130_a: Admiralty Telescope

This telescope was discovered by P. Stevens at Kendalls Wharf. It was discovered in material dredged from licence area 351, approximately 19km off the east coast of the Isle of Wight.

This telescope was kindly sent to Wessex Archaeology to enable a full examination of the artefact. It is approximately 35cm in length and approximately 5cm in width. The telescope is inscribed with a number of details relating to the manufacture of the object. The words 'W. Ottway and Co. Ltd. Ealing London 1944 No. 6445' were observed at one end of the telescope. W. Ottway and Co. were the manufacturers of a wide range of scientific instruments. They were established in 1640 in Ealing, London and by the 20th century they were contractors for the Admiralty and the War Office amongst others.

A broad arrow mark was noted above the manufacturer's details on the telescope. This would indicate that it originated from the War Office. The arrow mark was originally used by the Board of Ordnance, which issued ordnance and warlike stores to the Army and the Navy. This government organisation was abolished in 1855 although the arrow mark continued to be used for a time by the War Office, which took over the duties of the Board. Other inscriptions include the Patent number 373 B, which may potentially aid a more specific identification of the telescope.

A number of telescopes with similar inscriptions are listed within antique collectables websites (e.g. www.scientificcollectables.com). This website describes such telescopes as WWII Officer of the Watch telescopes. Each of the examples demonstrate a leather barrel or leather cladding around their central section. It is quite possible that this telescope too had a leather cladded centre which eroded.

It is highly likely that this telescope derived from a vessel. At present, it appears to be an isolated find, and as such is not necessarily indicative of a coherent wreck site on the seabed. It may have come to be on the seabed after being lost over board. However, if further finds are discovered within the area they should be reported immediately, as they may potentially pinpoint the location of a hitherto unknown wreck site.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estates
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for the Isle of Wight
- The Local Government Archaeology Officer for the Isle of Wight
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



Hanson_0135_a: Metal Object

This artefact was discovered by M. Keenaghan onboard Hanson's vessel the *Arco Adur*. It was found in material dredged from licence area 240, approximately 11km south-east of Great Yarmouth. The finds were reported through the protocol on the 14th February 2008.

This metal object appears to have performed a structural role. Photographs of the find were sent to Andrew Simpson at the RAF Museum in Hendon. Andy circulated the photograph of the object to his colleagues and unfortunately through examining the photograph alone, no positive identification could be ascertained.

Andrew did, however, suggest that the object may represent the cockpit canopy handle of an aircraft. While this cannot be confirmed, it suggests that it may comprise part of an aircraft.

Crashed aircraft are particularly important to archaeologists, as not only do they offer a unique form of evidence for the historical development of flight, but they also often relate to crucial historical episodes of warfare which have had a profound impact during the 20th century and beyond. In addition to this, all crashed military aircraft are protected by law under the Protection of Military Remains Act 1986. The discovery of aircraft remains is thus incredibly important, particularly as aircraft crash sites may contain human remains and associated munitions.

This metal object appears to be an isolated find, and as such is not necessarily indicative of a coherent aircraft crash site. However, the discovery of further remains from the area should be reported immediately. Further finds could not only aid the interpretations of this particular discovery, but could also potentially identify sites and archaeologically sensitive areas on the seabed, perhaps even resulting in the discovery of a previously unknown aircraft crash site.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for Norfolk
- The Local Government Archaeology Officer for Norfolk
- The Finds Liaison Officer (Portable Antiquities Scheme) for Norfolk



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0137_a – update: Fossilised Wood

This find was discovered by Darren Taylor at UMA's Bedhampton wharf. It was discovered in material dredged on the 26th January 2008 from licence area 127, approximately 11km off the eastern extremity of the Isle of Wight.

This find was reported in January 2008 and photos of the item were shown to both Andy Currant, of the Natural History Museum, and Michael Simms of Ulster museum. Identifying fossils from photographs can be very difficult and whilst both specialists gave their advice on what the find might be neither could confirm identification. An initial wharf report for this item, which was initially thought to be the fossilised remains of a marine animal, was generated and delivered in February though it stated that, 'The identification of this object as a marine animal fossil has yet to be confirmed.'

The fossil was given to Wessex Archaeology in May along with several other finds reported through the protocol, to form part of our coastal and marine teaching collection and Wessex Archaeology staff showed the fossil in person to fossil experts at the Charmouth Heritage Centre in Dorset. They were able, by studying the object first hand, to identify it as being fossilised wood. The rings which form inside wood are faintly visible on either end of the fossil and the black material on the outside is fossilised bark.

Petrified wood forms when organic material within wood is entirely replaced by minerals. This often occurs underground, for example if the wood has become buried, and happens when there is no oxygen present to allow the wood to rot and decay as it would were it not buried. Wood that has gone through the process of fossilisation is as hard as quartz and can be cut open and polished to reveal the inner structure of the wood clearly. Wessex Archaeology were advised that UMA_0137 may show more of the internal structure of the wood if cut and polished, however specialist saws would have to be used to do this given the strength of the fossilised minerals.

Fossils are not strictly speaking archaeological as archaeology is the study of the human past and fossils typically formed millions of years ago, compared to the first known human occupation of Britain, which occurred 700,000 years ago. Just as people collect fossils today though, there is evidence that people in the past may have used fossils, for examples as curios, ornaments or as jewellery and so it is important that further finds of fossils are reported through the protocol.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate



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Protocol for Reporting Finds of Archaeological Interest



UMA_0143_a: Concreted Chain and Ring

These objects were discovered by Garry Phillips and Chris Hake at UMA's Ridham wharf. They were discovered in material dredged on the 9th March 2008 from licence area 430, approximately 20km off the coast of Suffolk.

The two finds reported through the protocol consist of a section of chain and ring and what appears to be some chain segments which are heavily concreted. Through an examination of the photograph, the ring appears to measure approximately 13cm in diameter. The chains which are attached to the ring are oval in shape and measure approximately 8cm in length and 5cm in width.

Photographs of these chain and ring parts were circulated within Wessex Archaeology's Coastal and Marine unit. A number of suggestions have come forward regarding the origin of the artefacts. One such suggestion is that the objects comprise fishing gear debris. Alternatively they may represent part of the rigging of a small sailing vessel or of a mooring chain.

Another suggestion that has come forward is that the finds are part of an anchor. They may be part of the chain cable attaching the anchor to the vessel. Chain cables came into general use in the 1820s and the links looked much the same then as they do today (Stone 1993:12). If these finds can be confidently identified as such, the thickness of the chain links suggests that they derive from a relatively small vessel. The chain and ring might also be part of a very small grapnel, a small four-pronged anchor often used in small craft.

Although there is the possibility that these chain sections do not derive from a vessel, it provides a plausible interpretation for how they came to be on the seabed. For example, after snagging, anchors were often cut free, leaving the anchor and sections of the associated cable chain on the seabed.

Alternatively, anchors are often the first signs of a shipwreck. At present these finds are thought to be isolated finds. However, further artefacts from this area may enhance the potential of locating a previously unknown wreck site. After a ship wrecks, and its various elements erode away, only the more durable items such as the anchor and chains remain on the seabed. As such we ask that wharf and vessel staff keep their eyes open for any further material of archaeological interest in the area.

References:

Stone, D.L., 1993, *A wreck diver's guide to sailing ship artifacts of the 19th century*. Columbia: Underwater Archaeological Society of British Columbia

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estates
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for Suffolk
- The Local Government Archaeology Officer for Suffolk
- The Finds Liaison Officer (Portable Antiquities Scheme) for Kent



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UMA_0144_a: Bone Fragment

This bone was discovered by Justin Apps at UMA's Ridham wharf. It was found in material dredged on the 9th March 2008 from licence area 430, approximately 25km off the coast of Suffolk.

This bone fragment is approximately 7cm long. Photographs of the fragment were sent to specialists Andy Currant and Richard Sabin at the Natural History Museum. They identified the bone as a partial distal end of a humerus – the lower end of the upper arm bone. They also identified that it was mammalian in origin, although confidently assigning the bone to a specific species was not possible due to the water worn nature of the fragment. However, Richard did suggest that it may have derived from a bovid, such as a cow sheep or goat.

To confirm that the bone was not human in origin, photographs of the fragment were sent to Jackie McKinley, Wessex Archaeology's human bone specialist. Jackie confirmed that the bone was not human, and also suggested that it may be bovid in origin.

It is not known how this bone came to be on the seabed. Animals were often carried on board ships as cargo and provisions, and as such it is possible that this fragment ended up on the seabed as a result of a shipwreck or through simple waste disposal. Animal remains may also end up in marine contexts having been washed from terrestrial deposits by rivers or eroded from cliffs or beaches.

Alternatively the bone may date to a time when the seabed was dry land. During an ice age, a larger proportion of the world's water becomes incorporated into ice sheets resulting in a fall in sea level. For example, at the height of the last ice age known as the Devensian, c.18,000 years ago, sea level was approximately 120m lower than it is today. During these times, parts of the North Sea were exposed as dry land.

The discovery of further material from this area should be reported immediately, as it could potentially identify an unknown shipwreck or archaeological site on the seabed.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The National Monuments Record
- The Historic Environment Record for Suffolk
- The Local Government Archaeology Officer for Suffolk
- The Finds Liaison Officer (Portable Antiquities Scheme) for Kent



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UMA_0147_a: Pulley Block

This object was discovered at UMA's Greenwich Wharf by Paul Tallents. It was found in material dredged on 17th January 2008 from licence area 254, 10km east of Great Yarmouth.

This object is made of wood with metal fixings at one end. It is sub-oval in shape and examination of photos of object reveals it to be approximately 30cm in length and 10cm in width.

Staff at the wharf identified the object as a pulley block. Photographs of this object were sent to Nigel Nayling, a timber specialist at the University of Wales. He confirmed the identification of the object made at the wharf. Identification comes from the presence of a hole, known as a swallow, visible when the block is turned on its side. This would originally have held a sheave over which a rope would have run to operate the pulley.

The pulley is likely to have come from a boat and may be part of a wreck, though it cannot be conclusively identified as such. The presence of metal in the construction of the pulley block indicates that it is likely to be nineteenth century or younger in date. Prior to this, blocks were made entirely of wood.

Whilst it is possible that the pulley block was part of a wreck, it appears to be an isolated find and does not therefore suggest a coherent wreck site. However, any further remains from licence area 254 should be reported immediately. The discovery of more wreck material would greatly enhance the potential for pinpointing the location of a hitherto unknown wreck.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for Norfolk
- The Local Government Archaeology Officer for Norfolk
- The Finds Liaison Officer (Portable Antiquities Scheme) for London



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CEMEX_0149: Wood Fragment

This unidentified wood object was discovered onboard the CEMEX vessel the *Sand Weaver* by Wieslaw Krolikowski. It was found with material dredged from licence area 127, off the west coast of the Isle of Wight. They were reported through the protocol on the 25th March, 2008.



This piece of wood is approximately 22cm in length, 15cm across, and 6cm wide, and at this time it remains unidentified. Although its appearance suggests that it may not be natural, Nigel Nayling, an expert on ship remains and timber at the University of Wales, was unable to provide further information. The extent of erosion prevents the identification of the species of wood and makes it difficult to distinguish if the wood has been worked. In addition, the lack of fastenings makes it difficult to determine if the object has come from a shipwreck. One possibility is that the find could be a water worn piece of a larger timber object.

While it cannot presently be identified as such, the possibility that this piece of wood derives from a vessel should not be ruled out. Shipwrecks represent an important part of our marine historic landscape and are extremely important to archaeologists in understanding some of the most fundamental aspects relating to human past and experience. As such, it is of the utmost importance that any further finds of archaeological interest discovered in this area are reported through the protocol immediately. Not only could further discoveries aid in the interpretation of this find, but they may even have the potential to pinpoint the location of a previously unknown wreck site.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The National Monuments Record
- The Historic Environment Record for the Isle of Wight
- The Local Government Archaeology Officer for the Isle of Wight
- The Finds Liaison Officer (Portable Antiquities Scheme) for the Isle of Wight



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Hanson_0150_a: Peat Concentrations

These peat deposits were discovered by Brett Farmer onboard Hanson's *Arco Adur* vessel in material dredged from licence area 240, some 11km off the coast of Norfolk.

These large concentrations of peat were discovered at various locations across three dredging lanes within licence area 240, approximately 11km south-east of Great Yarmouth. Hanson's provided ten locations in which peat deposits were apparent. The distribution of these locations suggests a spread of peat sediments variously across an area measuring some 200m in length and 130m in width.

The earliest evidence of human activity in Britain dates back to approximately 700,000 years ago. Over the last 700,000 years, there have been three main ice ages that have had significant impacts on the character of the environment in which our predecessors lived. During an ice age a larger proportion of the world's water becomes incorporated into ice sheets. This results in a fall in sea level. At the height of the last ice age, known as the Devensian (c.18,000 years ago) it has been estimated that sea level was approximately 120m lower than it is today. Following an ice age, as the ice sheets melt, the sea level rises.

Peat is a brown fibrous soil that formed when the sea level was so low, that the seabed formed marshy land. As such the discovery of such deposits can inform us of the sea level changes that took place in the past. In addition to this, peat is made up of plant remains, and often contains microscopic remains that can provide information about the environment at the time it was formed. This information helps us to understand the kind of landscape that our predecessors inhabited. In the past, people used many of the resources that these marshy areas contained, and as such artefacts are also often found within or near peat.

Unfortunately it has not been possible to collect and analyse a sample of these peat deposits and as such a more detailed investigation has not been possible. However, samples of another peat deposit found approximately 20km east of great Yarmouth, reported through the protocol by CEMEX's Steenkorrel wharf in Amsterdam in February 2006, was found to contain wood, mineralised bone, antler and a single piece of struck flint which are thought to have eroded out of a peat layer possibly more than 10,000 years old. This highlights the huge potential that peat deposits have in providing important information about prehistoric people. If further sediments of this nature are discovered, wharf and vessel staff are encouraged to collect a sample of the deposit so that we are able to analyse it and expand our knowledge of our predecessors and the environment in which they lived.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estates
- The National Monuments Record
- The Historic Environment Record for Norfolk
- The Local Government Archaeology Officer for Norfolk
- The Finds Liaison Officer (Portable Antiquities Scheme) for Norfolk



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Protocol for Reporting Finds of Archaeological Interest



UMA_0154_a: Metal Shot

This object was found at UMA's Southampton Wharf by D. Challis. It was found in material dredged on the 6th April 2008 and is thought to come from licence area 124/1a, approximately 16km off the Sussex coast, near Littlehampton.

This object is a small metal shot which is approximately one inch wide. Images and information about this shot were sent to Phil Magrath, an ammunitions expert from the Royal Armouries Museum. He believes that this type of ammunition would have been fired from a small gun known as a robinet.

A robinet, which is also known as a rabbinett or rabinet, is a small gun which was used in the 15th and 16th centuries. The tradition of the time was to name guns after birds, hence the falconet gun was named for the falcon hawk and the saker gun was named for the saker hawk. A robinet typically weighed around 300 pounds and had a calibre of one inch, compared to the falconet at 500 pounds with a 2 inch calibre or the saker at 1,400 pounds with a 3.65 inch calibre. The robinet, being a smaller gun than both the falconet and the saker, takes its name from the French word for 'Rooster'.

This find suggests that there may have been a naval battle or minor skirmish in the area from which it was dredged. A very famous conflict did indeed take place in the English Channel at the end of the 16th century caused by the arrival of the Spanish Armada, although naval clashes were endemic in the region during this period. It is not inconceivable that this shot relates to the Armada though this is unlikely and cannot be proven or disproved as finds like this one lack a context in which to place and understand them.

Alternatively it may have come to rest on the seabed due to accidental loss or as the result of a practice shot. There is also the possibility that this shot came from a wreck site, though none are known in the area from which it was dredged. As this item is likely to have originated in some way from a vessel it has been reported to the Receiver of Wreck.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for East Sussex
- The Local Government Archaeology Officer for East Sussex
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0155_a: Metal Plaque with Lettering

This object was found at UMA's Southampton Wharf by J. Jerromes. It was found in material dredged on the 6th April 2008 from licence area 124/1a, approximately 16km off the Sussex coast, near Littlehampton.

This object appears to be a metal plaque with lettering upon its surface. It is likely that it would have been roughly rectangular though it is broken along the lower and left hand edges. The plaque, as it is today, measures roughly c.7cm x c.9cm.

Due to the damage on the object part of the message it is inscribed with is missing. The remaining portion states '... AS PER APPROVED... LOAD 10 CWTS... LOAD 7 1/2 CWTS... 5 CWTS.' To the right of this lettering is a circular hole which would have allowed the attachment of the plaque to equipment or machinery. Photographs of this object were sent to Nigel Nayling, a timber and ships specialist at the University of Wales. He has suggested that the object might be a safe working load rating tag from some form of lifting gear.

Given the location of this item when dredged, it is likely to have come from a boat and may be part of a wreck, though it cannot conclusively be identified as such. The fact that it is largely made of metal suggests that it is likely to be nineteenth century or younger in date.

Whilst it is possible that the plaque was part of a wreck, it appears to be an isolated find and does not therefore suggest a coherent wreck site. However, any further remains from licence area 124/1a should be reported immediately. The discovery of more wreck material would greatly enhance the potential for pinpointing the location of a hitherto unknown wreck.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for East Sussex
- The Local Government Archaeology Officer for East Sussex
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0156_a: Metal Debris

These artefacts were discovered on 30th March 2008 by N.C. Sait at Southampton Wharf. They were discovered in material dredged by the *City of Chichester* from Licence Area 340 – approximately 10 kilometres east of the Isle of Wight.

At least five pieces of metal debris have been recovered. The circular object has a diameter of 14cm, and has wires protruding from the front and side. The other pieces range from approximately 18cm x 18cm to 6cm x 8cm. Because these small, fragmentary pieces were difficult to identify, photographs of them were sent to a number of different finds specialists.

Andrew Simpson, Curator of Aircraft at the RAF Museum, noted that because there were no apparent part numbers or other identification, it was impossible to confirm if these were parts of an aircraft. However, he suggested that if these parts did belong to an aircraft, the circular item might be an instrument casing, perhaps an altimeter or something similar.

At Wessex Archaeology, our shipwreck finds specialist, Graham Scott, thought that the item might be part of an old fashioned metal switch or junction box. This type of item could come from a ship or from any number of land contexts.

The area around the Isle of Wight has produced numerous finds of 20th century building debris, thought to be related to the clean up of bombing debris from World War II, and it is possible that these finds are related to that.

Further discoveries in this licence area could determine the true nature of this find and may indicate the location of a previously unknown shipwreck or aircraft crash site. Therefore, it is important that any further finds of archaeological interest in this area are reported through the protocol.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for the Isle of Wight
- The Local Government Archaeology Officer for the Isle of Wight
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0157_a: Brick and Paver

These artefacts, a brick and a paver, were discovered on 30th March 2008 at Southampton Wharf by N.C. Sait. They were recovered from material dredged by the *City of Chichester* in Licence Area 340 – approximately 10 kilometres east of the Isle of Wight.

In order to get further information about these two artefacts, photos were sent to Wessex Archaeology find specialists Lorraine Mephram and Bob Davis.

The orange brick is a 'refractory brick' or 'firebrick'. Because the name 'Bonnybridge' is stamped onto the surface of the brick, it was possible to identify and trace it. The brick was made by the Glenboig Union Fireclay Co Ltd from Lanarkshire, Scotland, which was founded in 1882 and operated until it was sold to General Refractories Ltd in 1936. The company produced refractory ceramic goods, such as furnace lining bricks and pipeworks, for the flourishing iron and steel industry in nearby towns. The superior quality of the bricks led to them being shipped all over the world to places such as Russia, Canada, India, Australia, South America, and Europe.

The other artefact is a 'blue clay diamond faced paver'. It is a very hard-fired brick that is used for flooring, for example in places like stables and agricultural areas, and the furrows are to allow drainage. The type is fairly modern, probably the 19th or 20th century.

These artefacts appear to be isolated finds of building debris. Similar finds of late 19th and early 20th century building rubble from dredging areas to the east and west of the Isle of Wight are thought to have come from the dumping of domestic scrap and demolition debris during the aftermath of World War II. However, it is also possible that they could be part of the cargo of a previously unknown shipwreck. Any further remains from this licence area should be reported immediately, particularly if they manage to shed further light on the source of this material as rubble or ship cargo.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for the Isle of Wight
- The Local Government Archaeology Officer for the Isle of Wight
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0158_a: Bone Fragments

These finds were discovered by Steve Smith at UMA's Southampton wharf. They were discovered in material dredged on the 8th April 2008 from licence area 340, approximately 8km off the east coast of the Isle of Wight.

These fragmentary bones were discovered some 8km off the east coast of the Isle of Wight. Through an investigation of the photographs provided, the following measurements of the fragments were ascertained. The bone pictured on the left is approximately 14cm in length, the bone in the middle measures approximately 20cm in length and the fragment on the right measures approximately 26cm in length.

Photographs of these bones were sent to Richard Sabin and Andy Currant, specialists at the Natural History Museum and Jessica Grimm, our animal bone specialist here at Wessex Archaeology. Due to the difficulties in analysing bone fragments from photographs alone alongside the fragmentary and worn nature of these bones, conclusive identification was not possible. However, it was suggested that the bone fragment in the middle may represent a bovid metapodial - limb fragments belonging to cloven-hoofed mammals such as cattle, sheep or goats. It was also suggested that the image on the right may represent a fragment of lower jaw bone also belonging to a bovid.

It is not known how these bones came to be on the seabed. Animals were often carried on board ships as cargo and provisions, and as such it is possible that this fragment ended up on the seabed as a result of a shipwreck or through simple waste disposal. Alternatively the bone may date to a time when the seabed was dry land. During an ice age, a larger proportion of the world's water becomes incorporated into ice sheets resulting in a fall in sea level. For example, at the height of the last ice age known as the Devensian, c.18,000 years ago, sea level was approximately 120m lower than it is today. During these times, parts of the North Sea were exposed as dry land. The discovery of further material from this area should be reported immediately, as it could potentially identify an unknown shipwreck or archaeological site on the seabed.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estates
- The National Monuments Record
- The Historic Environment Record for Isle of Wight
- The Local Government Archaeology Officer for Isle of Wight
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0159_a: 19th century pottery sherd

This object was found at UMA's Southampton Wharf by N. C. Sait. It was found in material dredged on 30th March 2008 from licence area 340, which is approximately 9km south-east of Shanklin on the Isle of Wight.

The object is a small sherd of pottery, approximately 8cm by 4cm in size. It is decorated on the front and on the back is a coded date stamp that was put on the piece shortly after manufacture.

Photographs of this object were sent to Wessex Archaeology's pottery specialist Lorraine Mephram. She was able to identify from the stamp on the rear of the piece that it was manufactured between 1868 and 1883.

The crucial information is held in the triangular shape visible just above where the sherd is broken. This stamp, which when seen complete would have been a diamond, was in use between 1842 and 1883. The circle round the top of the diamond identifies the type of pottery vessel and the figure just visible in the diamond gives either a letter denoting the year (in use until 1868) or a number (from 1868). In this case the figure in the diamond is thought to be a number, indicating that this vessel was made between 1868 and 1883.

The mark above this bears the Fleur de Lys crest of the Prince of Wales and has the letters W.O.G. or W.O.C. and the word London beneath it. Tantalisingly, this mark is not one recognised by our specialists and though it is clear that this item was made in London, it is not known who by.

It is not currently known how this piece of pottery arrived on the seabed. It may have eroded from the coast, but it is more likely that it was discarded over the side of a vessel or has been derived from a wreck site.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The National Monuments Record
- The Historic Environment Record for the Isle of Wight
- The Local Government Archaeology Officer for The Isle of Wight
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0160_a: Bone

This object was discovered by Garry Phillips at UMA's Ridham wharf. It was found in material dredged on 31st March 2008 from licence area 296, approximately 14 km east of Caister-on-Sea.

This item is an animal bone that has been heavily degraded during its time in the water. The damage to either end of the bone makes it very difficult for archaeologists, even bone specialists, to identify the species that this came from, as they rely heavily on these for information.

Images of this bone were sent to Wessex Archaeology's bone expert Jessica Grimm and Andy Currant, a mammal specialist from the Natural History Museum. Both agreed that identification was difficult due to the degraded nature of the bone. They thought that it might have come from what Andy called an artiodactyl. This, it transpires, is the group name for a variety of large mammals. Included in this group are pigs, goats, cattle and camels. It is likely, given the area that it was dredged, that it is from one of the former three.

It is not known how this bone arrived on the seabed. Animals were often carried on board ships as cargo and provisions and as such it is possible that this fragment ended up on the seabed as a result of a shipwreck or through simple waste disposal. Animal remains may also end up in marine contexts having been washed from terrestrial deposits by rivers or eroded from cliffs or beaches.

Alternatively the bone may date to a time when the seabed was dry land. During an ice age, a larger proportion of the world's water becomes incorporated into ice sheets resulting in a fall in sea level. During these times, parts of the North Sea were exposed as dry land.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The National Monuments Record
- The Historic Environment Record for Norfolk
- The Local Government Archaeology Officer for Norfolk
- The Finds Liaison Officer (Portable Antiquities Scheme) for Kent



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0164_a: Copper Rudder Nail

This artefact was discovered at Ridham Wharf by Justin Apps. It was recovered from material dredged on 16th April 2008 by the *City of London* in Licence Area 296, approximately 15km east of Great Yarmouth.

This artefact appears to be made from copper. It is under 20cm in length, although it appears to have been sheared off at the end, so it may have been longer. The head of the bolt measures approximately 3cm in diameter.

Photographs of the find were analysed by Steve Webster, an expert in shipwreck artefacts at Wessex Archaeology. He suggested that based on the size and type, the find was probably a 'rudder nail', also sometimes known as a 'rudder bolt' (McCarthy 1996: 184, 190). Rudder nails were used for fastening the gudgeon to the vessel or the pintle to the rudder. It is very probable that this find has come from a wooden sailing vessel, and as the nail appears to be made of copper, it could be that this find predates the early 19th century when iron fastenings became more popular in ship construction, although a later date cannot be discounted.

This copper rudder nail appears to be an isolated find, and therefore it does not necessarily suggest a coherent wreck site. However, as the find is thought to come from a wooden sailing vessel, it is possible that the wooden parts of the wreck have deteriorated and that only the metal fastenings survive. Nevertheless, wooden remains could still be found, and therefore any wooden material from license area 296 should be reported. The discovery of more wreck material, either wood or metal, would greatly enhance the potential for discovering a previously unknown or unidentified wreck site.

References:

McCarthy, M., 1996, 'Ship fastenings: a preliminary study revisited' in *The International Journal of Nautical Archaeology* 25 (3 and 4): 177-206.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for Norfolk
- The Local Government Archaeology Officer for Norfolk
- The Finds Liaison Officer (Portable Antiquities Scheme) for Kent



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



CEMEX_0165_a: Bone

This bone was discovered at Northfleet Wharf by Roger Burnham. It was recovered from material dredged on 23 April 2008 by *Sand Fulmar* in Licence Area 113/1, approximately 32km south-east of Clacton-on-Sea.

Photographs of this bone were sent to Jessica Grimm at Wessex Archaeology and to Andy Currant at the Natural History Museum.

Jessica Grimm noted that this is a radius, and since the distal epiphysis is un-fused it came from a sub-adult animal. She thought it could be from a horse.

Andy Currant agreed that it belonged to a young animal, but suggested it might belong to a bovid, possibly Bos or Bison.

It is not known how this bone came to be on the seabed or how old the bone may be. Animals were often carried on board ships as cargo and provisions, and as such it is possible that this bone could have been thrown overboard through waste disposal, or it could have ended up on the seabed as a result of a shipwreck. Animal remains may also end up in marine contexts having been washed from terrestrial deposits by rivers or eroded from cliffs or beaches. Alternatively the bone may date to a time when the seabed was dry land. During the last ice age, sea levels fell as a larger proportion of the world's water became incorporated into ice sheets, and at the glacial maximum around 18,000 years ago, sea levels were approximately 120m lower than today, and parts of the North Sea were exposed as dry land.

The discovery of further material from this area should be reported immediately, as it could potentially identify an unknown shipwreck or archaeological site on the seabed.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The National Monuments Record
- The Historic Environment Record for Essex
- The Local Government Archaeology Officer for Essex
- The Finds Liaison Officer (Portable Antiquities Scheme) for Kent



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0166_a: Brass Objects

These objects were found by Dean Lutman and Darren Taylor at UMA's Bedhampton wharf. They were reported on the 12th May 2008 having been found in material dredged from the South Coast dredging region. The licence area from which they were dredged is unknown.

These objects were discovered in a pile of unsorted material at Bedhampton wharf which contained aggregate from a number of licence areas. As such, the precise licence area from which they were dredged is unknown, although they are known to have been dredged from the South Coast dredging region. Identifying these finds has proved to be rather difficult. Photographs of the brass objects were sent to John Edmondson, the Head of Sciences at Liverpool Museum. Although he could not identify the finds John suggested that since they are brass the objects were likely to have been associated with a vessel. Brass is often used instead of cheaper alternatives like cast iron for maritime items to minimise sea-water corrosion.

The object on the right in the photo was positively identified by Geoff Pringle, a marine collector and enthusiast. He identified it as part of a ship's gimble lamp. This style dates from the twentieth century and was frequently used by the Royal Navy during WW1. Examples of this type of lamp, he tells us, were also used on the Titanic. To further help our understanding of the item Geoff sent some photos of an intact example of a gimble lamp (right) and the similarity between the two pieces is unmistakable. The holes drilled at either end of this piece allowed the light to swing in order to direct it to where it was needed.



Photographs of these finds were also circulated around the Coastal and Marine department of Wessex Archaeology. Graham Scott, a Senior Project Officer, suggested that the object on the left may have been intended to fix an object with a rectangular section to something and to swivel away from what it was attached to. Graham suggested that it may have been a fitting to do with the rowing or steering on a vessel. On viewing the images, Adrian Jarvis, the former Curator of Port History at Liverpool Museum and current researcher at Liverpool University, provided an alternative interpretation. He suggested that the object on the left may be a comparator – an adjustable instrument for making repeated checks on the dimensions of a particular class of things. Unfortunately curators of HM Revenue and Customs collections at Liverpool museum were unable to confirm this identification. Adrian Jarvis did however highlight that the hexagonal bolt visible on this item suggests that it dates from post-1850.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estates
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for the Isle of Wight
- The Local Government Archaeology Officer for the Isle of Wight
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



HANSON_0169_a: Mammoth Tooth

This mammoth tooth was found by A. Mills aboard the *Arco Arun*. It was dredged on 15th May 2008 from licence area 240, which is approximately 13km off of the Norfolk Coast.

This find was discovered aboard the *Arco Arun* dredging vessel by A. Mills and was identified by wharf staff as a mammoth tooth. This identification was confirmed by Andy Carrant of the Natural History Museum, who also added that it was likely to have come from *Mammuthus primigenius*, the woolly mammoth.

Finds of mammoth remains in Britain are relatively rare. Woolly mammoths lived in this part of Europe to the end of the Devensian ice age (c. 10,000 years ago) but there are few dated examples. Unfortunately it is not currently possible to confirm a date for this tooth.

This mammoth tooth may have come to be on the seabed having been washed from terrestrial deposits by rivers or eroded from cliffs or beaches, or it may date to the last Ice Age. During the last Ice Age, which is known as the Devensian glaciation, a greater proportion of the world's water was incorporated into ice sheets, resulting in a fall in sea level. As a consequence of this large swathes of land that currently form the bed of the North Sea were dry land. Being topographically lower, this would have been prime land for our ancestors and the animals they hunted. The area from which this tooth was dredged became fully submerged around 10,000 years ago as the Ice Age ended and water was released from the Ice caps.

The seabed off of the coast of Great Yarmouth, from which this tooth was recovered, has recently yielded a wealth of prehistoric finds thought to date to past Ice Ages. Whilst this tooth currently appears to be isolated, it is very important that it was reported and that all further finds from this area are also reported, as every new find of Ice Age origin helps to inform our understanding of how past humans lived and adapted to their landscape.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The National Monuments Record
- The Historic Environment Record for Norfolk
- The Local Government Archaeology Officer for Norfolk
- The Finds Liaison Officer (Portable Antiquities Scheme) for Norfolk



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



HANSON_0170_a: Ammonite Spiral

This object was found by Robert Wilson at Hanson's Hull Wharf (Humber Sand and Gravel). It was found in material dredged on 9th May 2008 from licence area 240, approximately 13km off of the Norfolk coast.

This find was recovered from material dredged from licence area 240, which is off of the Norfolk coast. The find measures approximately 9cm across and is approximately 2cm wide.

The item was identified as part of an ammonite's spiral by staff at Hanson's Hull wharf. Michael Simms, the Curator of Palaeontology and a specialist in geology and fossils at Ulster Museum, confirmed this and identified the fossil as being part of an ammonite of the genus *hildoceras*. This was evident from the grooves visible on the inside of the whorl and the shape of the ammonite in cross section.

This type of fossil is common in geological deposits of the lower Toarcian age, which is within the Lower Jurassic period. Toarcian deposits are in the region of 180 million years old and are found extensively on the Yorkshire and East Midlands' coasts. It is plausible, states Dr Simms, that this fossil was transported to the coast of Norfolk by glacial movement during the Pleistocene.

Technically an ammonite does not constitute an archaeological discovery as archaeology only studies the human past and ammonites such as this one formed around 200 million years ago during the Lower Jurassic period. The earliest known hominid occupation of Britain occurred a mere 700,000 years ago by comparison.

There is evidence though that, just as people collect fossils today, people in the past valued fossils, for example as jewellery, ornaments or curios. It is therefore important that all further finds of a similar nature are reported through the protocol.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest

Hanson_0171_a: Two Sherds of Roman Samian Ware and a Piece of Antler

These artefacts were discovered on the *Arco Beck* by T. Kerrison and K. Myscin. They were recovered from material dredged on 14th May 2008 from Kwinte Bank, Belgium. Although the finds are outside of the remit of the BMAPA / EH Protocol, Wessex Archaeology was interested in the finds in terms of their general significance and their ability to provide information about the archaeological potential of the area.



Hanson generously loaned Wessex Archaeology the artefacts for research purposes, and the pieces of pottery were analysed by Lorraine Mephram, a pottery specialist here at Wessex Archaeology.

She examined the pottery and discussed it with other experts. It was determined that the finds are Rheinzabern ware, a type of Roman samian ware. Both pieces have identical stamps on the bottom. The stamps read 'CATULLUZ', and indicate that the vessels were made by Catullus V, between AD 170 and 260. The pieces are most likely part of Ludowici form Sb vessels – and they may have looked something like this:



www.museumoflondon.org.uk/ceramics

Samian ware was manufactured in Central Gaul from the Augustan Period onwards, and the height of the industry was during the 2nd century AD, when products were widely distributed across Gaul, the Danube provinces, and across the English Channel to Britain.

Jessica Grimm, a Wessex Archaeology bone specialist, examined the antler, and photographs of the find were forwarded to Richard Sabin and Andy Currant at the National History Museum. It appears to be a piece of red deer antler due to its size and the deep fluting around the base. There are no tool marks on the antler, and it seems to have been shed naturally, not taken from a hunt.

Although it is not possible to say whether the pieces of pottery and the antler are related, they are still interesting finds. While they could just be objects that were thrown overboard from a passing vessel, the fact that the pottery vessels are identical in form and bare identical stamps may suggest that they come from the same cargo, and thus could indicate the presence of a Roman shipwreck. Few shipwrecks of sea going Roman vessels are known in northern Europe, so these finds could lead to an important discovery.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The Receiver of Wreck
- Flemish Heritage Institute (VIOE)



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0173_a: Patent Log Rotator

This artefact was discovered at Erith Wharf by Barry Gould. It was recovered from material dredged on 19th May 2008 by the *City of Westminster* in Licence Area 447, approximately 20 kilometres south-east of Felixstowe.

This find is a patent log rotator, approximately 35cm long. It is made from a copper tube with welded on fins, and the revolving brass spigot is now seized.

A patent log relies on a rotator that is towed from the stern of a ship. The movement of the water past the rotator causes it to rotate at a speed proportional to the speed of the vessel through the water. The speed or rotation is transmitted along a log line to a mechanical register that counts the log's rotations while it is being towed. The patent log is also known as a screw log or taffrail log.

The patent log was introduced in order to provide ships' crews with a more accurate and easier method of calculating distance travelled than the common log. The *Oxford Companion to Ships and the Sea* states that the patent log was invented in 1688 by the English instrument maker Humphrey Cole, and by the 18th century, the devices had become widely available. Initially the mechanical register was located on the vessel, but the accuracy of the device was limited by the effects of friction which falsified the readings. This problem was solved when English engineers Richard Gower, in 1792, and Edward Massey, in 1802, developed new types of logs that had the register mounted close to or on the rotator itself. In the first half of the 19th century, the revolutionary electric log was introduced by Edward Massey, and this, combined with improved marine clocks, made it possible to calculate distance run more accurately. As a result, the common log had become virtually obsolete by the end of the 19th century. The patent log itself became largely obsolete in the late 20th century, and logs of various kinds are now usually mounted on the hull of a ship rather than streamed behind it.

This patent log does not appear to be an electric log or to incorporate its dials on the rotator itself, so the mechanical register for recording the distance travelled would have been either on the vessel or mounted a short distance ahead of the rotator. This artefact most likely dates to the 19th – 20th century, although it could be as early as the 18th century.

The artefact appears to be an isolated find, and as logs were streamed behind vessels whilst underway it could have been lost in use. Therefore, it is unlikely to indicate the presence of a wreck. Nevertheless, logs have been found on wreck sites, and any further finds from the area should be reported, as they may have the potential to determine the location of a previously unknown wreck site.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for Essex
- The Local Government Archaeology Officer for Essex
- The Finds Liaison Officer (Portable Antiquities Scheme) for Kent



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



Hanson_0174_a: Piece of Glass, Padlock, Nail, and Thermometer backing

These four objects were found at Southampton Wharf by D. Davies on 15th May 2008. They were discovered in material dredged by the *Arco Dee*, from License Area 122/3, approximately eight kilometres south-east of Bembridge, Isle of Wight.

Photographs of these four objects were sent to Bob Davis and Lorraine Mepham, finds specialists at Wessex Archaeology.

The piece of glass is from a clear glass bottle embossed with the manufacturer's name. The letters 'MOUTH' are visible, and it has been suggested that this could be a milk bottle from Portsmouth. Lorraine Mepham noted that without the full manufacturer's name it is not possible to determine whether the bottle held milk, beer, mineral waters, or any number of other liquids. Bottles of this type were used through the Victorian period and into the early part of the 20th century.

The padlock could be dated from the late 19th century to today – as padlocks of this type are still in use. Although the padlock appears to have a manufacturer's stamp, it was not possible to identify it or to provide more detailed information.

Due to the lack of green patina, the nail appears to be made of iron. Square nails, such as this one, are used in a wide variety of land contexts for construction, but as 'spikes' are also used in shipbuilding to fasten thick planks.

The preliminary record form from the wharf noted that the long thin strip of metal appeared to be the backing from a thermometer, and the experts agreed, but they were not able to provide further information about this find.

These appear to be isolated finds, possibly related to the building rubble frequently found in this area. However, the presence of the rubble does not exclude the possibility that these finds could come from a shipwreck, or have been thrown overboard from a passing vessel. In any case, future finds in this area should be reported through the protocol, as they may shed additional light on these artefacts and allow for a more detailed interpretation of the area.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for the Isle of Wight
- The Local Government Archaeology Officer for the Isle of Wight
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



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Protocol for Reporting Finds of Archaeological Interest



Hanson_0175_a: Lead '8'

This object was discovered by Shane Jarrett on the *Arco Dart*, on 15th May 2008. It was recovered from material dredged from license area 391, approximately three kilometres west of Avonmouth.

This lead object is approximately 17cm long (6 ½") and weighs 1.6kg (3lb 1oz).

For identification, photographs of the find were sent to Bob Davis and Lorraine Mephram, finds specialists at Wessex Archaeology. Judging by the square holes on the right hand side of the object, it appears that the '8' was fixed by square section nails, not screws, and the square nails probably had round heads. This means that it was probably fixed to a soft material such as wood rather than masonry. Although soft lime mortar would take a nail if it were long and thin, the spacing between the holes would not fit a standard imperial bed joint in brickwork.

The provenance of this artefact is difficult to determine. Since the object was recovered in the vicinity of Avonmouth, not far from Bristol docks, it is possible that it could be related to maritime activities. It might have been used to mark warehousing, industrial buildings, or even ministry buildings. Or it could have been used on a large container or other object. In any case, it is likely to have been used somewhere where the durability of lead was required, otherwise the number could simply have been painted on.

Although it is not possible at this time to provide further information about the function or provenance of this find, this does not undermine the object's potential. Further discoveries in this area could aid in the interpretation, and therefore any future finds should be reported through the protocol.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for North Somerset
- The Local Government Archaeology Officer for North Somerset
- The Finds Liaison Officer (Portable Antiquities Scheme) for North Somerset



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0176_a: Dump Nail / Bolt

This object was discovered at Southampton Wharf by J. Jerromes on 30th April 2008. It was recovered from material dredged by the *City of Chichester* in license area 127, approximately 19 kilometres south east of Bournemouth.

This artefact was described by wharf staff as an iron nail. The green patina suggests that the nail contains some copper, and may be copper/iron alloy. The nail measures 18cm (7") in length, with a diameter of about 2 cm (5/8").

Photographs of the find were sent to Graham Scott and Steve Webster, experts in shipwreck archaeology at Wessex Archaeology. They noted that it was likely a ship fastening from a wooden vessel, probably dating post-1800. There is no standard terminology for metal fasteners used on ships, but it could be called a 'dump nail', which is also known as a 'dump bolt' or a 'short bolt' (McCarthy 1996). 'Dump nails' had round shafts and solid heads, and they were often made of alloys. They varied in length from 18cm (7") for attaching planks 5.5cm thick (2 1/2") to lengths of 30cm (12") for planks 12.5cm thick (5"). Dump nails are generally between 2cm (5/8") and 2.5cm (1") in diameter. Short/dump bolts could be either blunt or pointed and were not driven completely through the material they were intended to connect.

Although this artefact may be derived from a shipwreck, it appears to be an isolated find, and therefore does not necessarily suggest a coherent wreck site. As the find is thought to come from a wooden sailing vessel, it is possible that the wooden parts of the wreck have deteriorated and that only the metal fastenings survive. Nevertheless, wooden remains could still be found, and therefore any wooden material from license area 127 should be reported. The discovery of more wreck material, either wood or metal, would greatly enhance the potential for discovering a previously unknown or unidentified wreck site.

References:

McCarthy, M., 1996, 'Ship fastenings: a preliminary study revisited' in *The International Journal of Nautical Archaeology* 25 (3 and 4): 177-206.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for the Isle of Wight
- The Local Government Archaeology Officer for the Isle of Wight
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



BMAPA/EH

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UMA_0177_a: Flag Pole Finial



This object was discovered at Southampton Wharf by D. Davies. It was recovered from material dredged by the *City of Chichester* on 13th May 2008 in licence area 395/1, approximately 15 kilometres south-east of Bembridge, Isle of Wight.

This artefact is approximately seven centimetres high, and the base has a diameter of four centimetres. It is probably made of a copper alloy – suggested by the green patina on the surface of the artefact.

It was described by wharf staff as a flag pole top or finial. Photographs of the find were shown to Wessex Archaeology finds specialists Bob Davis and Lorraine Mephram, and to shipwreck specialists Steve Webster and Graham Scott. It was agreed that the artefact was probably a flag pole finial, and after a thorough examination of the photographs, no other suggestions were offered.

The find appears to be isolated, and there is nothing to suggest a provenance. It could be part of a shipwreck; it could have been lost overboard from a passing ship; or it may just be building debris, as the area around the Isle of Wight has produced numerous finds of 20th century rubble. Further discoveries in the license area could provide more information, and therefore it is important that they are reported through the protocol.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The National Monuments Record
- The Historic Environment Record for the Isle of Wight
- The Local Government Archaeology Officer for the Isle of Wight
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0178_a: Bicycle Bell

This find was discovered by Garry Cooper at UMA's Bedhampton wharf. It was found in material dredged on the 20th April 2008 from licence area 122/3, 8km east of the Isle of Wight.

This find measures 67mm in diameter. On discovering the object, it was suggested by staff at UMA that this find represented a bicycle bell. Through examining the photographs of the artefact, Wessex Archaeology came to the same conclusion. However, in order to provide further information on the find, UMA kindly sent the bell to Wessex Archaeology enabling an in-hand examination.



At the centre of the bell, a circular section measuring 19mm in diameter is engraved with the image of a lion under which is the word 'Lucas'. From this inscription, it was possible to ascertain that the find is a King of the Road Lucas bicycle bell. Having discovered this, photographs of the find and a thorough description were sent to the National Cycle Museum to see if further information could be attained.

The museum informed Wessex Archaeology that the company which used 'King of the Road' as their trade name was established in 1879 by Joseph Lucas. Although the business produced a wide range of items, its main focus was bicycle bells and lamps. Lucas cycle components continued to be manufactured into the 1970s and 1980s, although by this time their chief production was electrical components for the car and aviation industries. The company exists today as Lucas Aerospace.

The production of the Lucas bell provides a broad date range of 1879-1980 for this find. Unfortunately, the design of the 'King of the Road' bicycle bells continued for many years and as such it is not possible to precisely date the bell. It is not known how this bicycle bell came to be on the seabed. One of the most plausible explanations is that it comprises part of the WWII domestic scrap and demolition debris spread across several kilometres covering an area to the south of the Portsmouth coast and to the west of Nab Tower. Although it is not regarded as a contentious find, the bell certainly highlights the potential for a diverse array of finds to be discovered on the seabed and wharf staff are encouraged to keep their eyes open for any further finds within this vicinity.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estates
- The National Monuments Record
- The Historic Environment Record for the Isle of Wight
- The Local Government Archaeology Officer for the Isle of Wight
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



Hanson_0179_a: Copper Alloy Hinge

This hinge was discovered by P. Roberts on board Hanson's vessel, the *Arco Avon*. The object was discovered on the 15th June 2008 in the eastern extent of licence area 473 in the Eastern English Channel dredging region, approximately 39km south of Bexhill in East Sussex.

From an examination of the photographs, this hinge appears to be made of copper alloy and measures approximately 14cm in width and 22cm in length. On receiving the report of the find, Wessex Archaeology sent photographs of the hinge to a number of specialists and retailers who specialise in marine components.

On observing the photographs, Andrew Simpson from the RAF Museum in Hendon confirmed that the hinge did not appear to derive from an aircraft. Richard Noyce from the Royal Naval Museum suggested that the hinge may have come from a vessel, representing the hinge of a hatch or scuttle (porthole) of a vessel. Adrian Jarvis, a researcher from Liverpool University and former Curator of Port History at the Merseyside Maritime Museum, suggested that the hinge may have been used for a waterproof joint in a vessel, such as an engine room ventilator, as the hinge is designed to pull and hold down tight rather than merely to pivot. Unfortunately none of the retailers that specialised in marine components could provide a more precise identification of the find.

Although the hinge has not been conclusively identified, its robust nature could well indicate that it derives from a vessel, providing a strong seal for watertight compartments. Finds that are associated with vessels are extremely important to archaeologists as not only do they contribute to our understanding of the marine historical landscape, but they also have the potential to pinpoint a previously unknown wreck site on the seabed. It is advised that wharf and vessel staff keep their eyes open for further finds in this dredging region, as they may contribute to our understanding of this find.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for East Sussex
- The Local Government Archaeology Officer for East Sussex
- The Finds Liaison Officer (Portable Antiquities Scheme) for East Sussex



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



Hanson_0180_a: Mammoth Teeth and Flint

These finds were discovered by Captain A. Mills at Hanson's SBV Flushing wharf. They were found in material dredged on the 22nd June 2008 from licence area 240, approximately 13km east off the coast of Great Yarmouth.

These finds were discovered on the Reject Pile at Hanson's SBV Flushing wharf while the cargo of aggregate was being discharged from the *Arco Arun*. The two mammoth teeth were found alongside two flint finds which were thought by wharf staff to have been struck. On receiving the report of the finds, photographs were sent to Matt Leivers, a flint specialist at Wessex Archaeology. Having examined the photographs, Matt stated that the flint finds appeared to be natural and thermally-fractured. However, following an in-hand examination, Matt concluded that one of the flint artefacts (above right) showed possible signs of striking. This flint may have been the waste product during the knapping of a flint tool such as a handaxe, rather than representing a tool itself.

The mammoth teeth appear to measure approximately 17cm and 12cm in width respectively. At present, mammoth fossils occur from the Wolstonian ice age (380,000 to 130,000 years ago) to the end of the Devensian ice age (c.10,000 years ago) but there are few dated examples. It is not currently possible to ascertain a date for these teeth.

These finds may date to a time when the seabed was exposed as dry land during an Ice Age, when the capturing of water within ice sheets resulted in a reduction in sea levels. Incidentally, these finds were dredged from an area adjacent to a concentration of peat deposits (Hanson_0150), which formed when the sea level was so low that the seabed was marshy land. The discovery position of these finds is also situated to the north-west of an identified concentration of worked flint and mammal remains (Hanson_0133).

Since the start of the Protocol, a number of prehistoric finds have been reported from the East Coast dredging region. This quantity of finds suggests that the area is potentially an archaeologically sensitive area. Consequently, we encourage wharf and vessel staff to readily report any finds thought to be of archaeological significance discovered within aggregates from this region. Specifically with regards to prehistoric finds, distinguishing struck flint from natural flint is not easy, so if there is any doubt please err on the side of caution and report any flint artefact you believe might have been shaped by our predecessors. As further discoveries are reported and mapped, it may be possible to identify meaningful patterns in the distribution of finds which not only has the potential to locate previously unknown submerged prehistoric landscapes, but also may ultimately contribute to our understanding of the marine historic environment.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estates
- The National Monuments Record
- The Historic Environment Record for Norfolk
- The Local Government Archaeology Officer for Norfolk
- The Finds Liaison Officer (Portable Antiquities Scheme) for Norfolk



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0182_a: Struck Flint Flake

This flint flake was discovered by Derek Orvington, UMA's Technical manager, during a visit to Greenwich Wharf. The flint was found within a small stockpile of reject material that was found next to the main stockpiles. Because of this the dredging region is unknown. Greenwich wharf handles material from the East coast only and this knowledge has helped us to understand where it might have come from.

This object was discovered by Derek Orvington during a visit to Greenwich wharf. It was found in a small reject pile and as such the licence area from which it was dredged is unknown. The wharf deals with aggregate dredged from licence areas from the East coast and this knowledge has helped us to understand where this flake may have come from.

Images of the flake were first sent to Wessex Archaeology in June. These were forwarded to our flint specialist, Matt Leivers, who was able to say from the images that the flint did indeed appear to be struck. He could not tell from the photos whether this was due to human action or whether it was as a result of accidental striking, for example during dredging or since. Paul Tallents of UMA sent the flint by post to Wessex Archaeology in Salisbury and an in-hand examination by Matt Leivers revealed that the flint was indeed struck by human action. Matt also identified that the smooth worn surface of the flint indicates that this happened a long time ago.

This type of flint is known as a waste flake. An experienced flint knapper will select which flint nodules will make good tools by 'listening' to them. Good quality flint nodules will ring like a bell when tapped together. A flint which has a lot of impurities or trails of cortex through it will make a dull thudding noise. The flint from which UMA_0182 was struck appears to have been of high quality. To make an effective cutting edge the knapper would remove the cortex, or outer coating of the flint, to leave only the pure flint beneath. This would have been done by striking flakes, such as UMA_0182, off of the nodule using a hammerstone or a piece of antler. Some of these flakes were later made into tools themselves. This one does not appear to have been reworked into a tool and the chips along its edge appear to have happened long after its discard by the original knapper.

Struck flint can be difficult to distinguish from that which has not been struck. This example has the classic flat platform, on the left in this photo, which clearly shows the point of impact. The wave of power then travelled through the flint creating what is known as a bulb of percussion, clearly visible on this example. A flint nodule that contains a lot of impurities would divert the power of the strike into the impurities and it would not be possible to effectively knap such a flint into a tool.

This example probably took the knapper very little time to make and was likely to have been rapidly discarded. Despite this, it can be of great importance to our understanding of the past occupation of the area which we now know as the North Sea. During past Ice Ages this land would have been dry enough for people and animals to occupy as water was locked into massive ice sheets. The North Sea has yielded many finds that tell of the presence of humans and animals during these harsh climatic conditions. Each new find, such as this one, helps us to understand this occupation. As more information becomes available we may begin to see meaningful patterns of activity which can enhance our understanding of the human occupation of land which is now under the sea.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The National Monuments Record
- The Historic Environment Record for Suffolk
- The Local Government Archaeology Officer for Suffolk
- The Finds Liaison Officer (Portable Antiquities Scheme) for London



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0183_a: Knife and Axe Head

These finds were discovered by N.C. Sait at UMA's Southampton wharf. They were found in material dredged on the 14th June 2008 from licence area 122/3, in the Isle of Wight dredging region.

These finds are not thought to be associated. Through observing the photograph alone, the axe head appears to measure approximately 17cm in length. The staff who reported the axe head stated that it was fairly modern in form.

The knife provides a rather interesting find to be dredged up from the seabed. It measures approximately 28cm in length and was described by staff at the wharf as a commando knife. Photographs of the knife were sent to the National Army Museum in London. Keith Miller, the Head of Weapons, Equipment and Vehicles at the museum confirmed that the knife could be loosely described as a commando knife.

Keith noted that the blade shared similarities with the Fairburn-Sykes knife, a type that was both issued and bought by commandos and other special forces during WWII. However, these knives were largely made with metal grips of white metal or brass. The hilt (handle) of this knife appears to be made of Bakelite. Because of this, Keith suggests that the knife is not military, but rather represents a souvenir or replica knife which was manufactured in the early post-war years. Such knives often had Bakelite hilts with leather washers in between, which may explain why some of the hilt of this knife has been rotted away.

It is not known how these objects came to be on the seabed. They may comprise part of the domestic scrap which has been noted in high concentrations within licence area 122/3. The discovery of further finds may aid the interpretation of how these objects came to be on the seabed, and as such we encourage wharf staff to keep their eyes open for further material in the vicinity.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The National Monuments Record
- The Historic Environment Record for the Isle of Wight
- The Local Government Archaeology Officer for the Isle of Wight
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



Hanson_0184_a: Possible Shell Casing Lids

These finds were found by D. Davies at Hanson's Southampton wharf. They were found in material dredged on the 22nd June 2008 from licence area 127, in the Isle of Wight dredging region.

Through an assessment of the photographs, the larger of these finds appears to measure 9cm in diameter, and the smaller approximately 4cm in diameter. The finds are each inscribed with text. The larger is inscribed with the text 'PATT 7071' and the smaller with the text 'PATENT C???RAL GUN-FILL 'TEEL TALET??ERS'.

These objects were described by wharf staff as being possible shell casing lids. Photographs of the finds and their inscriptions were sent to Phil Magrath, the Curator of Artillery at the Royal Armouries Museum. Unfortunately Phil was unable to confirm this identification and could not provide an alternative identification for the objects.

Through examining the objects first hand, the wharf staff observed that the objects appeared as though they had been subject to an explosion. Considering this alongside the inscriptions on the finds, it is quite possible that they represent the remains of munitions.

Unfortunately it has not been possible to identify these finds. However, it is quite plausible that they represent the remains of munitions. If this identification is confirmed, finds such as these can tell us a great deal about warfare at sea and potentially pinpoint the location of a previously unknown wreck site. However, it should be noted that munitions should only be reported through the Implementation Service once the appropriate identification and where necessary disposal actions have been completed under the protocols defined in the munitions Guidance Note.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for the Isle of Wight
- The Local Government Archaeology Officer for the Isle of Wight
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0185_a: Employment Badge

This find was found in material dredged from licence area 122/3 in the Isle of Wight dredging region. It was discovered at UMA's Bedhampton wharf and reported on the 8th July 2008. The finder of the object is unknown.

This badge measures approximately 4cm in diameter and is inscribed with the words 'Portsmouth Education Committee Employment Badge'. At the centre of the badge is a crest, under which the numbers '432' are engraved. At either side of the badge two flattened hoops for attachments can be seen.

Having received the report of this find, photographs of the badge were sent to Portsmouth City Museum. John Stedman, the Local History Officer at the museum, informed Wessex Archaeology that the badges were issued in an attempt to control the employment of child labour in the early 20th century, and it is presumed that any working child found not wearing one of these badges could be reported to the truancy officer and legal action be taken against the employer. It is also presumed that the number on the badge was the child's number under the system.

John also informed Wessex Archaeology that two badges identical to this one all except for the engraved number were held in Portsmouth City Museum's collection. One of the badges held at the museum is recorded to have been given to Mr. Smith, a thirteen year old boy, by the employment department at the Portsmouth council in 1935. The badge was given to Mr. Smith on a black ribbon, to wear while he was on his paper round. It is likely that a similar story could be associated with the badge discovered at UMA's Bedhampton wharf.

It is not known how this badge came to be on seabed. It may comprise part of the possible WWII demolition debris and domestic scrap which has been noted in concentrations across area 122/3. Alternatively, as suggested by John, it may have been lost overboard by a child working on a fishing boat or on a ferry. This find has local historical significance and we encourage wharf staff to report any further finds discovered in the vicinity.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estates
- The National Monuments Record
- The Historic Environment Record for the Isle of Wight
- The Local Government Archaeology Officer for the Isle of Wight
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



UMA_0186_a: Possible Deer Bone

This bone was discovered by Dave Davies at UMA's Southampton wharf. It was found in material dredged on the 25th June 2008 from licence area 395/1, off the east coast of the Isle of Wight.

This bone is approximately 28cm in length. On receiving the report of this find, photographs of the bone were sent to Jessica Grimm, the animal bone specialist at Wessex Archaeology, and Richard Sabin, a specialist at the Recent Mammal Section in Zoology at the Natural History Museum. Through examining the photographs, both Jessica and Richard commented that the bone most likely represents the metatarsal (foot bone) of a cervid (deer).

Further to this, Richard commented that the general morphology and dimensions of the bone compared favourably with the red deer, also known as the *cervus elaphus*. However, due to the worn nature of the bone alongside the difficulties in identifying animal bones from photographs, Richard stated that this identification was not conclusive.

Since the protocol began in 2005, a number of animal bones have been reported. There are a number of reasons why animal bones come to be on the seabed. Animals were often carried on board ships as cargo and provisions, and as such it is possible that this bone ended up on the seabed as a result of a shipwreck or through waste disposal. The archaeological evidence from the *Mary Rose*, an early 16th century vessel, showed the presence of venison carried onboard. Alternatively, animal remains may have been washed into the sea from terrestrial deposits by rivers.

Another explanation is that the animal bone dates to a time when the seabed was exposed as dry land. During an ice age, a larger proportion of the world's water becomes incorporated into ice sheets, resulting in a fall in sea level. For example, approximately 18,000 years ago during the height of the last ice age, known as the Devensian, sea level was about 120m lower than it is today, and large parts of the English Channel, the Irish Sea and the North Sea were exposed as dry and inhabitable landscapes.

It is not currently known how this bone came to be on the seabed. However, the discovery of further material from this area has the potential to enhance this interpretation and as such, future finds of archaeological interest dredged up from the seabed should be reported immediately.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estates
- The National Monuments Record
- The Historic Environment Record for the Isle of Wight
- The Local Government Archaeology Officer for the Isle of Wight
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



BMAPA/EH

Protocol for Reporting Finds of Archaeological Interest



Hanson_0187_a: Metal Blade

This find was discovered by Lee Hepworth from Hanson's Humber Sand and Gravel Wharf on the 30th August 2008. It was found in material dredged from licence area 408, approximately 106km east of the Humber estuary.

Through an assessment of the photograph, the metal object appears to be a blade shaped iron object, measuring approximately 18cm in length. The tip of the blade appears to have been worn and is blunt and slightly asymmetrical in appearance. Photographs of the object were sent to Jörn Schuster (Archaeological Artefacts Specialist, Wessex Archaeology). Unfortunately Jörn was not able to provide a more detailed explanation without undertaking an in-hand examination of the blade.

It has been noted that the blade shares some distinct similarities with a blade reported through the EH/BMAPA protocol which was discovered at Cemex's Northfleet wharf in April 2007. The blade was slightly longer than that shown here, and had a more defined tip.

Through examining the photographs of the previous blade, Jörn suggested that it may have been part of an agricultural tool such as a plough. It was further suggested by Phil Andrews, Wessex Archaeology's post medieval specialist, that the previous blade was not particularly old and appeared to be post medieval in date. However, as the shape of farming and agricultural tools has not evolved significantly in the last 2500 years, it is possible that the blade was made as early as the Iron Age.

It is quite possible that this blade provided a similar agricultural function as that suggested for the blade reported through the protocol in 2007. However, without a closer examination of the find it is not possible to provide any further interpretation. It is not known how this find came to be on the seabed. It may have been an isolated object thrown overboard as waste. Alternatively it may be evidence of a shipwrecked cargo.

Information about this discovery has been forwarded to:

- English Heritage
- BMAPA
- The Crown Estate
- The Receiver of Wreck
- The National Monuments Record
- The Historic Environment Record for the East Riding of Yorkshire
- The Local Government Archaeology Officer for the East Riding for Yorkshire
- The Finds Liaison Officer (Portable Antiquities Scheme) for the East Riding of Yorkshire



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Protocol for Reporting Finds of Archaeological Interest

UMA_0129_0140_0141_0142_0145_0146_0161_0163_a: Cannon Balls



UMA_0129



UMA_0140



UMA_0141



UMA_0142



UMA_0142



UMA_0145



UMA_0146



UMA_0161



UMA_0163



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Protocol for Reporting Finds of Archaeological Interest

UMA_0129_0140_0141_0142_0145_0146_0161_0163_a: Cannon Balls

These cannon balls were each discovered in material dredged from the east coast dredging region. They derive from licence area 430, approximately 25km south-east from Southwold and licence area 296, approximately 14km east of Great Yarmouth. **UMA_0129**, **UMA_0141** and **UMA_0142** were found by Justin Apps at UMA's Ridham wharf. **UMA_0140**, **UMA_0161** and **UMA_0163** were also discovered at UMA's Ridham wharf, by Garry Phillips, Sam Thangavelu and Richard Apps. **UMA_0145** and **UMA_0146** were discovered at UMA's Greenwich wharf, although the finders are unknown. Wessex Archaeology suggests that these finds may derive from the Anglo-Dutch Wars of the mid 17th century.

The Anglo-Dutch Wars are an extremely important part of England's history. Not only are they significant as events in the history of naval warfare, but also as struggles for commerce rather than territory, they played a significant role in determining the development and control of trade routes across the sea. These great battles were based entirely at sea and as such had a profound impact in shaping the development of the English Royal Navy.

Two major battles of the Anglo-Dutch Wars are thought to have taken place in this vicinity. The Battle of Lowestoft 1665 was the first engagement of the Second Anglo-Dutch War 1665-7 whereas the Battle of Sole Bay 1672 was the first engagement of the Third Anglo-Dutch War 1672-4. To ascertain whether or not these cannon balls derived from either one of these battles, details and photographs of the various round shot were sent to Phil Magrath, the Curator of Artillery at the Royal Armouries Museum.

A number of the cannon balls reported through the protocol are thought to have been fired from a saker (also known as a 6-pounder), a gun of different variants firing different weights of shot between 5lb and 7lb. The smaller cannon balls of **UMA_0142** and **UMA_0146** measure 3.5 inches and 4 inches in diameter accordingly, representing a calibre suitable for a saker. Two cannon balls (the larger of **UMA_0146** and **UMA_0161**) are thought to have been fired by a 9-pounder, measuring 4.5 inches and weighing 8lbs. **UMA_0129** measures 4.75 inches in diameter and is thought to have been fired by a 12-pounder gun, a type of gun widely deployed in the Battle of Lowestoft on Third Rate vessels. **UMA_0140**, **UMA_0141** and the larger of the two cannon balls in **UMA_0142** were each reported to measure approximately 5½ inches, representing a calibre suitable for an 18-pounder gun, a gun widely deployed on First and Second Rate vessels in the Battle of Lowestoft. **UMA_0163** presents a dilemma, as its diameter of 5½ inches suggests a weight of 18lbs, but at 10lbs it represents a weight usually fired by a demi-culverin, a type of gun with a 4 inch diameter. **UMA_0145** at 6.75 inches is the correct diameter to be fired by a 42-pounder gun although at 36lb it is a little lighter than expected.

Having assessed their calibre, it is possible that all of these cannon balls derived from the Anglo-Dutch wars of the mid 17th century. As a result, it is of the utmost importance that any future finds of archaeological interest discovered in this dredging region are reported through the protocol immediately. Further finds have the potential to pinpoint the location of a previously unknown shipwreck relating to one of these naval battles, and wharf and vessel staff are encouraged to keep an eye out for any finds which may relate to the vessels deployed in this significant historical episode.

Information about this discovery has been forwarded to:

- English Heritage
- The National Monuments Record
- BMAPA
- The Historic Environment Record for Suffolk and Norfolk
- The Crown Estates
- The Local Government Archaeology Officer for Suffolk and Norfolk
- The Receiver of Wreck
- The Finds Liaison Officer (Portable Antiquities Scheme) for Kent and London

UMA_0114_0119_0121_0127_0138_a: Possible World War II Rubble



UMA_0114: Blue Brick



UMA_0119: Animal Bone Fragment



UMA_0121: Butchered Animal Bones



UMA_0127: Various ship fixtures and fittings



UMA_0138: Possible worked wood

UMA_0114 was discovered by N.C. Sait at UMA's Southampton Wharf.
UMA_0121, UMA_0127 and **UMA_0138** were discovered by Ray Smith, Arthur Farmiloe and Darren Taylor at UMA's Bedhampton wharf. These were each found in material dredged from licence area 122/3.
UMA_0119, discovered by Colin Ford at UMA's Shoreham wharf, was dredged from licence area 122/1A.



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Protocol for Reporting Finds of Archaeological Interest

UMA_0114_0119_0121_0127_0138_a: Possible World War II Rubble

These finds were all dredged by the *City of Chichester* from the Isle of Wight dredging region to the west of Nab Tower, in an area containing large quantities of rubble from which objects are frequently dredged up.

UMA_0114 consists of a small bone fragment, two pieces of timber, two pieces of folded metal sheet, what appears to be a lump of metal working slag and a brick. Photographs of the blue brick were sent to Bob Davis at Wessex Archaeology. Based on its size and dense composition, Bob suggested that it may represent a 'blue brick', a type of brick often used on the corner of buildings and such like to resist striking blows. Such bricks are often seen in military contexts.

UMA_0119 consists of a small bone fragment. Photographs of the bone were sent to Jessica Grimm, Wessex Archaeology's Animal Bone specialist, who was unable to provide an identification of the bone without an in-hand examination. She did, however, state that it did not appear to be a tooth as suggested by the wharf staff who reported the find.

UMA_0121 consists of two animal bone fragments. Photographs of the fragments were sent to Richard Sabin at the Natural History Museum. Richard identified the fragments as partial rib and vertebra fragments almost certainly from a bovid, such as a cow, sheep or goat. Richard also noted that the fragments show signs of butchery. Animals were often carried on board vessels as provisions, and as such it is possible that these bones were discarded following the butchery of an animal carcass onboard a passing vessel. Alternatively, they may represent domestic waste from inland which was discarded at sea.

UMA_0127 consists of one fork, three spoons, three brass plaques, a brass fitting and a rowlock. One of the spoons has been inscribed with a broad arrow mark. This would indicate that it originated from the Board of Ordnance. This government organisation issued ordnance and warlike stores to both the Army and the Navy and was abolished in 1855 although the arrow mark continued to be used for a time by the War Office, which took over the duties of the Board. One of the plaques is inscribed with the words 'Royal Navy Mess No.4' and another with the numbers '144'. These finds may have derived from a Royal Navy vessel.

UMA_0138 consist of three pieces of wood. On examining photographs of the wood, Nigel Nayling, a ships and timber specialist from the University of Wales, suggested that the darker pieces may be oak, and that no fastenings or tool marks were apparent. As such it cannot be ascertained whether the objects derived from a vessel or not.

UMA have stated that the rubble from which these finds appear to have come is spread across several square kilometres, covering an area to the south of the Portsmouth coast and to the west of Nab Tower. The rubble may have accumulated due to the dumping of domestic scrap or demolition debris in the aftermath of WWII. Diana Gregg at Portsmouth City Museum and Records Office said there was no record for this and that the majority of rubble within Portsmouth was dumped inland and reused for various military projects. We will continue to investigate the origin of the rubble. However, the presence of the rubble does not preclude the occurrence of wrecks in the area. The finds reported as UMA_0127 may have come from a wreck, been lost overboard from a vessel or been contained in the rubble when it was dumped. The other finds may also be associated with loss from a vessel or wreck.

Information about this discovery has been forwarded to:

- English Heritage
- The National Monuments Record
- BMAPA
- The Historic Environment Record for the Isle of Wight
- The Crown Estates
- The Local Government Archaeology Officer for the Isle of Wight
- The Receiver of Wreck
- The Finds Liaison Officer (Portable Antiquities Scheme) for Hampshire



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