Protocol

for the Reporting of Finds of Archaeological Interest

Introduction

BMAPA/EH Protocol for Reporting Finds of Archaeological Interest
Implementation Service and Awareness Programme

The marine aggregate industry accounts for around 21 per cent of the sand and gravel used in England and Wales and the discovery of archaeological finds is thus a relatively common occurrence during the course of dredging.
As a result, in August 2005 the British Marine Aggregate Producers Association (BMAPA), in conjunction with English Heritage, published a Protocol for reporting finds of archaeological interest. The Protocol was prepared by Wessex Archaeology and has subsequently been adopted by all members of BMAPA.

Under the Protocol, staff who make a discovery report it to a local 'Site Champion' on the vessel or wharf who compiles a preliminary report. The Site Champion passes this report to the company's 'Nominated Contact', a single identified person within each aggregate company.

Wessex Archaeology has been commissioned to run the Protocol's Implementation Service. When a Nominated Contact reports a discovery through the secure web-based reporting system, Wessex Archaeology's Protocol team are automatically alerted to the presence of a new find.

Wessex Archaeology staff investigate every find with the help of specialists from around the country to compile reports detailing each discovery. These are sent to English Heritage, BMAPA and the wharf or vessel who discovered the find. They are also sent to the Receiver of Wreck, Local Government Archaeological Officers, Finds Liason Officers, and the Ministry of Defence, as relevant.

Wessex Archaeology is also conducting an Awareness Programme comprising visits to wharves and vessels, a series of workshops and producing further copies of the Dredged Up newsletter. The aim is to raise awareness of the Protocol amongst dredging company staff and to provide advice on identifying, handling, recording and storing finds.

This pack contains advice and guidance in support of the BMAPA/EH **Protocol Implementation Service**.

It should include:

Handout 1 - Introduction
Handout 2 - The Reporting Process
Handout 3 - Metalwork and Concretions
Handout 4 - Munitions and Ordnance
Handout 5 - Photographing Finds
Handout 6 - Conservation and Storage
Handout 7 - Timeline

If any of these are missing, or if you would like further copies, please contact the Implementation Service team at Wessex Archaeology.

For further information please contact:

Euan McNeill (Project Manager)

Wessex Archaeology
Portway House
Old Sarum Park
Salisbury
SP4 6EB
Tel: **01722 326867**
Fax: 01722 337 562
info@wessexarch.co.uk

Or visit Wessex Archaeology's Protocol pages on the website:
http://www.wessexarch.co.uk/projects/marine/bmapa/index.html

Nominated Contacts should report discoveries through the secure BMAPA/EH reporting website:
http://net.wessexarch.co.uk/bmapa/login.aspx

Protocol

for the Reporting of Finds of Archaeological Interest

The Reporting Process

BMAPA/EH Protocol

For discoveries made at the wharf

A find is made on the processing screens, reject piles or debris magnets

Wharf Staff:

Inform Site Champion

Site Champion:

Note the occurrence as soon as possible and compile Preliminary Record

Inform Nominated Contact and pass on all available information, including a copy of the Preliminary Record and copies of any photographs, drawings or other records

Arrange for the finds to be immersed in seawater in a suitable clean, covered container (see Handout 6-Conseravtoin)

For discoveries made on board a vessel

A find is made on board the dredging vessel, within the cargo or trapped in dredge gear

Vessel Staff:

Inform Officer on Watch

Officer on Watch:

Avoid making additional dredging passes in the vicinity

Inform the Master

For discoveries found on the seabed

Anomaly indicates that an object or structure has been encountered on the seabed

Officer on Watch:

Avoid making additional dredging passes in the vicinity

Arrange for dredging gear to be examined

Inform the Master

Master:

Note the occurrence in the vessel's log

Mark the area on navigational software

Compile the Preliminary Record

Inform the Nominated Contact and pass on all available information, including a copy of the Preliminary Record and copies of any photographs, drawings or other records

Arrange for any recovered finds to be immersed in seawater in a suitable clean, covered container (see Handout 6-Conservation)

Report to Nominated Contact

Protocol

for the Reporting of Finds of Archaeological Interest

Metalwork and Concretions

BMAPA/EH Protocol

What is a concretion?

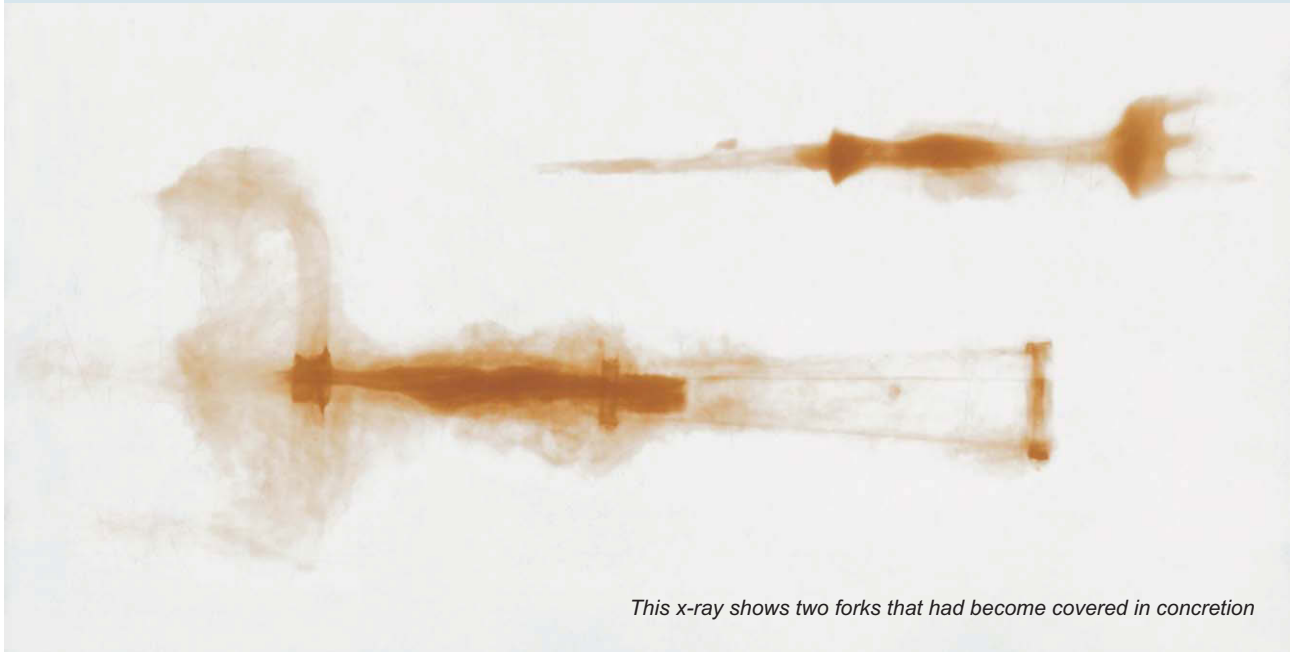
Concretions are dense masses of hard material that form on the surface of corroding iron or other ferrous metals. As the iron corrodes and concretion forms, other material from the seabed such as gravel and even boulders can become stuck to it. Within the concretion the object gradually corrodes away, sometimes leaving only a hollow space.

Why are concretions important?

Concretions can easily obscure the shape of an object, often making them impossible to identify. However concretions should never be dismissed as unimportant simply because they aren't immediately recognisable as X-ray can sometimes reveal the true nature of a concretion.

Concretion on a metal ring from the HMS Collossus

UMA_0123 concretion discovered at Southampton Wharf



This x-ray shows two forks that had become covered in concretion

Protocol

for the Reporting of Finds of Archaeological Interest

Metalwork and Concretions

BMAPA/EH Protocol

Keep your eyes peeled

Given that concretions can incorporate gravel and other stony material it is often hard to spot them on the wharf or on the dredger. However, they may be discovered by metal detectors and magnets. If you find something which you think might be a concretion, please report it – it could be important.

UMA_0143 concreted iron chains

Recording

To accurately identify concretions and metal finds we need as much information as possible.

Useful information includes the depth of the concretion (if it is possible to measure this) and the size and weight of the object. If you can't take completely accurate measurements (it is often difficult to do this given the nature and shape of archaeological finds) take approximate ones and tell us that they are approximate on your recording sheet. As a guide, try and think in terms of: Length, Width, Depth and Diameter.

Concretion can obscure the true size of an object, so if it has a concreted surface then make sure that this is described in the report. If part of the concretion is broken off and the bare metal is visible below (as can be seen on the cannonball below), then measure the depth of the concretion and put it into the report.

(Cannonball CEMEX_0064)

Measurements of cannonballs are especially important. Cannonballs did not change much in their construction over 100's of years but their size and weight did. If we know the exact diameter of a cannonball we can often work out not only how old it is, but what type of gun it might have been fired from.

Don't forget to weigh cannonballs if you have a suitable set of scales.

Note: With all munitions company protocols concerning their safe disposal have absolute priority over their reporting under this scheme.

Protocol

for the Reporting of Finds of Archaeological Interest

Munitions and Ordnance

BMAPA/EH Protocol

Always follow Company Guidelines on the SAFE TREATMENT OF MUNITIONS when they are discovered

For more information see:
BMAPA's Guidance Note Dealing with Munitions in Marine Aggregates June 2006 or speak to your line manager.

Hanson_0019: practice bomb

Despite long periods spent submerged munitions can still be extremely dangerous. They should always be treated with caution and respect and should be reported to the police, coastguard or Ministry of Defence in line with your company policy.

Only when munitions have been made safe or identified as inert by the police or a military Explosive Ordnance Disposal Officer (EOD) should they be reported through the protocol.

Hanson_0184: shell lid

Britannia_0066: royal mortar shell

Are BMAPA staff likely to recover munitions?

Up to 10% of the bombs that fell on and around the UK during WWll failed to function and so far only a fraction of these have been recovered. In addition to these 'blind' munitions, ordnance from both world wars was dumped at sea and munitions on board sunken vessels are rarely recovered. Aircraft downed at sea may also hold unexploded ordnance and the majority of aircraft crash sites at sea have not currently been identified.

The risks can be increased when dredging moves to a new licence area and aggregate companies often report the increased discovery of munitions and ordnance when dredging begins in previously undregded areas. BMAPA's Guidance Note includes advice on how to reduce this risk to ensure the safety of all staff.

Protocol

for the Reporting of Finds of Archaeological Interest

Munitions and Ordnance

Why are munitions are important?

Historic munitions are important to archaeologists. The oldest, cannonballs, can often reveal not only what time period they are from but also what type of weapon they were associated with. This can help us to relate a cannonball to a particular battle or vessel type. Cannonballs are regularly found in all dredging regions as Britain has a long maritime and naval history. Many vessels were armed and numerous battles and skirmishes have occurred in our waters.

Modern munitions including bullets, torpedoes and bombs can embellish our knowledge of more recent conflicts and might indicate the presence of a previously unrecognised wartime wreck. However, some wharves find these types of munitions weekly, or even daily. Reporting them all would be a large drain of resources and time, for you and for Wessex Archaeology.

Because of this we recommend that only those munitions that are inert or which appear to be older than 20th century in date are reported.

Those which date from the 20th century should be reported if they are found in association with material that might have come from a plane or shipwreck. When found with a wreck they can be extremely important. Bullets found with over 300 pieces of an aircraft in the east coast dredging region allowed us to date the aircraft to the Battle of Britain in the summer of 1940. This discovery won Erith wharf the award for most significant find in 2006/2007.

All munitions should still only be reported through the Protocol after industry guidelines have been followed.

Remember that military EOD's can often provide information about munitions when making them safe. If you are reporting a discovery through the Protocol, this information should be recorded on your initial recording form and passed to the nominated contact to pass to Wessex Archaeology.

UMA_0081: MG15 saddle magazine

A Cautionary Tale

Ian Jones, the Metropolitan Police Civilian EOD Officer, demonstrated the instability of munitions, even after they have spent decades underwater. Under controlled conditions he sectioned an armour piercing round from a German MG-15 saddle magazine discovered by BMAPA staff. Despite having been submerged for over sixty years, the phosphorous in the round ignited when exposed to the air and burned for a full two minutes.

Protocol

for the Reporting of Finds of Archaeological Interest

Photographing Finds

What is the photograph for?

The photographs that we receive of new discoveries are incredibly important. They give us a lot of information about each find and we send these to specialists around the country. Because of this they need to be as clear as possible.

Tips

Place the object on a clutter free, neutral/grey background, not a white or patterned background.

If an object is wet, wipe off the excess water before taking the picture to avoid light spots detracting from the object.

Zoom in on the object so that it fills the picture.

Make sure the picture is sharp – support the camera or your hand if you need to.

Do not include too many objects in one shot.

Take as many pictures as necessary. It is much easier to interpret an artefact from several views.

Always try and photograph the object outside using daylight. Have the sun in front of you not behind, so that the object is lit and not in shadow. If you do use a flash then take one picture with it and one without.

Take extra close-up pictures of markings or features that you think are unusual.

Place a ruler or known object, such as a biro, in the picture to help show the size of the object.

Checklist

Can someone tell from the photos:

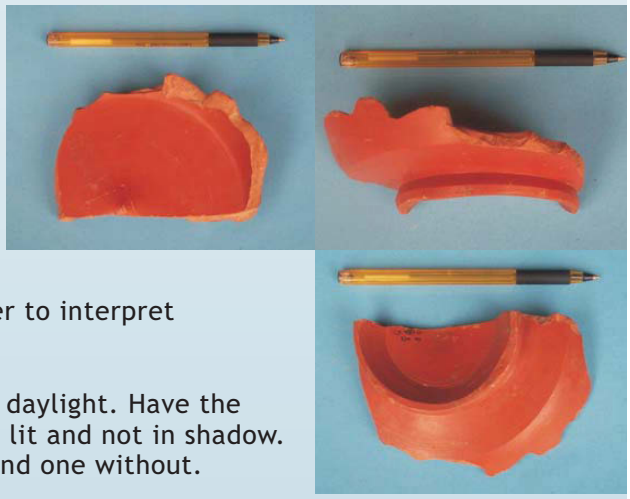
What size the object is?

What shape it is?

What type of object it is?

What is it made of?

Whether it has any unusual markings?



Protocol

for the Reporting of Finds of Archaeological Interest

Conservation and Storage

The 3 simple rules are: Wet, Cool and Dark

Finds from marine contexts are very fragile. All discoveries need to be stored in conditions as close to those they were in under the water in order to survive. Don't be fooled, even seemingly robust objects, such as cannonballs, can quickly degrade if they are not treated correctly.

Best Practice for finds discovered whilst wet or damp

On discovery of a find, place it into a plastic container, such as a Stewart box, and completely cover the find with seawater. Float a sheet of polythene on the surface of the water and firmly secure a lid if available.

For large finds submerge as much of the find as possible and wrap any unsubmerged areas in wet fabric and polythene. Ensure the fabric is kept wet. Try and support any joints, joins, handles, spouts or obvious loose or unstable parts of the find. This should be done by placing rolled fabric or jiffy foam around the find.

Clearly label the container or find and place it somewhere cool and dark where it is unlikely to be moved.

Check the condition of the find regularly. If algae are growing in the water rinse the find and container in tap water and then immediately re-submerge the find in fresh seawater. Top up the water if necessary and check the find for cracks or flaking. If these are noted contact a professional as soon as possible.

If finds have fully dried out when they are discovered

It is not normally advisable to re-submerge marine finds that have dried out as this can further weaken their structure. In this instance it would be best to contact an expert such as the local Finds Liaison Officer.

Remember that the sooner a find is reported through the Implementation Service, the sooner we can give you professional advice on what your find is and how it should be stored.

A - A newly discovered find
B - Place the find in a plastic container, cover it with seawater and float a sheet of polythene on the surface
C - Firmly secure the lid and clearly label the container before placing it somewhere cool and dark

Protocol

for the Reporting of Finds of Archaeological Interest

Conservation and storage

If finds have fully dried out when they are discovered

It is not normally advisable to re-submerge marine finds that have dried out as this can further weaken their structure. In this instance it would be best to contact an expert such as the local Finds Liaison Officer.

Remember that the sooner a find is reported through the Implementation Service, the sooner we can give you professional advice on what your find is and how it should be stored.

The detrimental effects of rapid drying on iron shot

Things to avoid

Avoid wrapping finds in supermarket carrier bags - most are biodegradable and contain chemicals harmful to the finds.

Letting the finds dry out can seriously damage them. Conservators can spend months, or even years, preparing finds and drying them in controlled conditions.

Using tissue paper or bubblewrap to protect finds can damage them. Tissue paper will degrade in water and bubblewrap will leave impressions on soft finds.

If several objects are stored in the same container, make sure they don't touch - letting them come into contact can cause damage. Wrap them in fabric or pad them with jiffy foam.

Try to avoid metal containers such as buckets. If a metal container is all that is available wrap the finds in clean fabric and polythene first and move them into a plastic container within two weeks.

If a find breaks, never 'fix' it with glue! Keep all the pieces and report them together.

Further advice

Advice on conservation both short term and long term can be sought from the Portable Antiquities Scheme (PAS) which has a network of regional archaeologists (Finds Liaison Officers or FLOs) whose job it is to record finds reported by the general public, give advice and raise awareness. The PAS are already aware of the good work done by dredging industry staff as Wessex Archaeology pass details of every find reported through the Implementation Service to the PAS. Contact details for your local officer can be found on the PAS website:

http://www.finds.org.uk/involved/contacts.php

Protocol for the Reporting of Finds of Archaeological Interest

Timeline

Geological Period	Archaeological Period BP (Before Christ) / BC (Before Present)			Glacial Period		Relative Sea Level
Middle Pleistocene	Palaeolithic	Lower Palaeolithic 700,000 to 150,000 BP	*Homo heidelbergensis*, early humans making tools (handaxes, cores and flakes), using fire and hunting and butchering large animals.	Anglian glaciation (480,000 to 425,000 BP)	Ice extending south to London and Bristol.	Low
			Homo neanderthalensis, Neanderthal man, more sophisticated stone tools and the burial of dead.	Hoxnian interglacial (425,000 to 380,000 BP)	Climate warmer than Britain today.	High
				Wolstonian glaciation (380,000 to 130,000 BP)	Including increasing evidence for further glacial and interglacial phases.	Low
Late Pleistocene		Middle Palaeolithic 150,000 to 30,000 BP	Lack of evidence for human presence. Possibly higher sea levels caused Britain to become an island for the first time, and prevented early humans from reaching Britain.	Ipswichian interglacial (130,000 to 70,000 BP)	The “Last Interglacial”. Climate similar to Southern France/ Northern Spain 130,000 to 118,000 BP. Evidence for fluctuating warm/cold conditions 118,000 to 70,000 BP.	High
			England no longer an island, evidence for Neanderthal populations.	Devensian glaciation (70,000 to 12,000 BP)	Early Devensian, climate like that of modern Scandinavia.	Low
		Early Upper Palaeolithic 30,000 to 12,000 BP	*Homo sapiens*, modern humans, blade based stone tools. Neanderthals disappear *c.* 30,000 BP.			
			Human populations probably migrated to warmer conditions in France and Spain. Tundra environment populated by woolly rhino, mammoth and reindeer.		Glacial maximum 20,000 to 18,000 BP. Ice extending south to Norfolk, Wolverhampton and South Wales.	
			People, animals and plants repopulating Britain.		Ice sheets receding, climate becoming progressively warmer.	
		Late Upper Palaeolithic 12,000 to 10,500 BP (= 8,500 BC)	Extinction of megafauna species. Hunter-gatherers, occupation of caves, cave paintings and other evidence for ritual practices.	Flandrian interglacial (12,000 BP to present)	Climate *c.* 1 or 2˚C warmer and wetter than present. Thermal maximum *c.* 7,000 to 6,000 years ago.	High
Holocene	Mesolithic	8,500 to 4,000 BC	Hunter-gatherer, microlithic tool industry, forest clearances, occupation of open sites.			
	Neolithic	4,000 to 2,400 BC	Origins of farming, pottery manufacture, settled communities, major forest clearance, growing population, megalithic monuments.			
	Bronze Age	2,400 to 700 BC	Introduction of metalwork, increased social hierarchy and economic links with the continent, individual burial practices, megalithic monuments.		General cooling of climate *c.* 4,500 to 2,500 years ago.	
	Iron Age	700 BC to 43 AD	Development of iron weapons and tools, new agricultural practices and permanent settlement, defensive structures (hill forts), religions centred upon offerings and sacrifice.			
	Romano-British	43 AD to 410 AD	Part of the Roman Empire, diversification of economy and commerce, new developments in agriculture, urbanisation, industry, architecture and religion.		Moderate climate amelioration.	
	Early Medieval	410 to 1066 AD	“Dark Ages”. Anglo-Saxons and Vikings. Arrival of Christianity.		Return to cooler climate.	
	Medieval	1066 to 1500 AD	Normans, Wars of the Roses, the Tudors (Henry VIII, dissolution of the monasteries).		Medieval optimum, climate warmer, similar to northern France.	
	Post-Medieval	1500 to 1800 AD	The Tudors (Elizabeth I), the Stuarts, English Civil War, the Restoration.		'Little Ice Age' 1450 to 1890AD (ice fairs held on the Thames).	
	Modern	1800 to Present Day	WWI and WWII.			