Introduction

The Protocol

Archaeology is the study of our human past. At sea, there is a lot of evidence that can teach us about people in the past – from sunken ships to anchors, downed aircraft and the remains of mammoths that roamed the landscape during the last Ice Age.

The Protocol lays out a simple framework through which archaeological finds made during aggregate dredging can be reported and investigated. These discoveries can help us to understand the past and protect our heritage. Without the Protocol, these finds may be lost from the archaeological record forever.

Your discoveries can make a difference. If you find archaeology amongst dredged aggregate, you can report it through the Protocol. The following pack of handouts will show you how.

If you find archaeology

Fill in an initial report form; protect the find by keeping it cool, wet and dark; and inform your Site Champion.

Your Site Champion passes this information to your company’s Nominated Contact, and they inform Wessex Archaeology. Wessex Archaeology investigates each and every find made through the scheme to identify what they are and how they came to be on the seafloor.

You will receive a report about your find and every find gets uploaded onto our webpages. You might also win an award – every year three are presented for best find, best attitude from a wharf and best attitude from a vessel. The nominations are shortlisted by Wessex Archaeology, and BMAPA and Historic England decide the winners.

For more information on the Protocol, how to book visits or to request copies of any awareness material please contact Wessex Archaeology

Email: protocol@wessex.co.uk  Tel: 01722 326 867

Or visit Wessex Archaeology’s Protocol website

www.wessexarch.co.uk/projects/marine/bmapa
The Reporting Process

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

Vessel Staff
Inform Officer on Watch

Officer on Watch
Avoid making additional dredging passes in the vicinity
Inform the Master

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 Conservation Handout)

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 Conservation Handout)

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

Officer on Watch
Inform Officer on Watch

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 Conservation Handout)

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 Conservation Handout)

Report to Nominated Contact
Concretions and Metalworks

What is a concretion?
Concretions are dense clumps of hard material that develop on the surface of iron or other ferrous metals as they corrode. Other material from the seabed often become stuck to a concretion, making these objects often difficult to differentiate from rocks on the seafloor. Over time, the object within a concretion gradually corrodes away, sometimes leaving a hollow void.

Remember
Just because concretions are often difficult to identify, this doesn’t make them any less archaeologically important. Although concretions often hide the true form of an object, x-rays can sometimes be undertaken to reveal what lies beneath the concretion, or a mould of the hollow shape can be made injecting filler.

How to record a concretion
When recording concretions, useful information includes length, width, diameter and where possible, the thickness of the concretions. Photographs from different angles are also valuable.
Munitions and Ordnance

Treat with Caution
Munitions can be extremely dangerous and must always be treated with caution. The appropriate response when dealing with munitions is to report them to the police, the coastguard or the Ministry of Defence in line with your company policy.

How Common are They?
Up to 10% of the ordnance that fell on and around the UK during WWII failed to detonate, and so far only a fraction of these have been recovered. Ordnance from both World Wars were dumped at sea and it is also possible for munitions to lie on the seabed as part of a wreck site or aircraft crash site.

Why are they archaeologically important?
- They can enhance our understanding of naval and aerial warfare
- They are indicators of the types of weapons deployed in past conflicts
- They may indicate the presence of the remains of a vessel or aircraft

Reporting Munitions to the Protocol
Only when munitions have been made safe or identified as inert by the police or a military Explosive Ordnance Disposal (EOD) Officer should they be reported through the Protocol. Any information the EOD can provide on the object should also be recorded on the Preliminary Record form to aid its identification.

Company Health & Safety policies and established operational procedures should always take priority over archaeological reporting
For more information consult
The Crown Estate’s Guidance Note on Dealing with munitions in marine sediments March 2010 or speak to your line manager
Prehistoric Finds

What are they?
Prehistoric finds include:
- Palaeo-environmental evidence
- Stone tools
- Animal bones

Why are they important?
Prehistoric finds hold information which enables us to understand the human past so that we can protect it for future generations.

Palaeo-environmental Evidence
Palaeo-environmental evidence relates to the microscopic remains of plants, animals and organic remains (e.g. wood) sealed within layers of peat. These remains can be used to reconstruct past landscapes and to help us understand how early humans and their ancestors lived. They can also tell us about how the landscape has changed by informing us about the configuration of the coastline in the past and the rise and fall of sea-levels.

Peat is a black or brown fibrous soil that formed when sea-level was so low that the seabed formed marshy land. As well as containing microscopic remains which provide environmental evidence, large samples of peat may also contain artefacts such as stone tools, as well as wood, leather, textiles, pottery and other materials.

Stone Tools
Stone tools are the oldest surviving tools used by humans and are amongst the earliest finds that can be recovered from the seabed. They are largely made from flint, though other types of rock could be used.

They are relics of a landscape which now lies submerged under the sea and are invaluable in telling us about past activities and settlement patterns of early humans and their ancestors.

Stone tools are notoriously hard to recognise. Any stone that looks as though it has been worked or struck should be reported through the Protocol.

Animal Bones
Animal bones on the seabed may relate to a period when areas of the seafloor were exposed as dry land. Not only do they provide insight into the types of animals which roamed these ancient landscapes, they may also provide an indication of the diet of early humans and their ancestors.

All bones should be reported through the Protocol upon discovery. The presence of any cut marks or other signs of butchery provide an indication of subsistence activities and should be noted when observed. Although it is not possible to date bones by simply looking at them, those which are dark in colour may be displaying a degree of fossilisation that are likely to be prehistoric in date.
Photographing Finds

Why are photographs important?
Photographs help us to identify objects. They can provide information about the size, shape, type and material of an object as well as any markings or unusual features and can be sent to specialists around the country.

Key Tips
- Use a recognisable object like a biro or coin as a scale if the scale sheet isn’t to hand
- Avoid light spots and wipe off excess water
- Don’t include too many objects in one shot

Photo Checklist
- Have you included a scale?
- Is the photograph in focus?
- Have you taken photos of the object from different angles?
- Have you taken a close-up of any markings or unusual features?

Example of photographing a recovered object reported to the Protocol:
A. object with scale; B. view from a different angle; C. detail of feature; D. view from another angle
Conservation & Storage

Marine finds are very fragile and can dry out quickly. Don’t be fooled – even seemingly robust objects can degrade quickly if not treated correctly.

**Three Rules**

1. **Wet** – if the object is wet on discovery, keep it wet
2. **Cool** – keeping objects cool inhibits the growth of algae and mould
3. **Dark** – place the artefact away from direct contact with light, such as in a drawer or cupboard

**Key tip:** if an object has started to dry out, don’t place it back into water

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**Wet Finds**

Place the find into a plastic container and cover with fresh water (use sea water if no fresh water available)
Large finds can be covered in wet fabric or polythene

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**Dry Finds**

Place the find into a container
Store large finds securely so as to avoid any unnecessary damage

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Label the container or wrapping with key information: date found, finder, cargo load or dredge area

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Store in a cool, dark area
Check the condition of the find regularly and note any changes in condition

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**Change the fresh water every week or few days when possible**

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**What not to do?**

- Don’t place different finds together
- Don’t dry out wet finds
- Don’t mend finds with glue
- Don’t wrap finds in bubblewrap
- Don’t wrap wet finds in tissue paper
- Don’t store finds in metal containers
- Don’t wrap finds in a supermarket bag

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**Why?**

- Some types of material can be affected by contact with others
- They will dry out and could crack and fall apart
- Glue can damage finds. Keep all the pieces of an object together
- Textured wrapping can leave impressions on soft finds
- Tissue paper will degrade in water
- Metal can cause problems including corrosion
- They contain harmful chemicals and some will biodegrade
### Timeline

<table>
<thead>
<tr>
<th>Geology</th>
<th>Archaeological chronology</th>
<th>Glacial and Interglacial periods</th>
<th>Sea level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Middle Pleistocene</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Lower Palaeolithic</td>
<td>970,000 to 150,000 BP</td>
<td>Evidence of early hominids (early humans) from footprints and stone tools along east coast of Britain</td>
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<td></td>
<td></td>
<td>Cromerian Complex</td>
<td>Warm climate similar to that of the present day Mediterranean</td>
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<td></td>
<td>Anglian glaciation</td>
<td>Ice extending south to London and Bristol</td>
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<tr>
<td></td>
<td></td>
<td>Hoxnian interglacial</td>
<td>Climate warmer than Britain today</td>
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<tr>
<td>Middle Palaeolithic</td>
<td>150,000 to 30,000 BP</td>
<td>Possibly higher sea levels caused Britain to become an island for the first time</td>
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<tr>
<td></td>
<td></td>
<td>Wolstonian glaciation</td>
<td>Including increasing evidence for further glacial and interglacial phases</td>
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<tr>
<td></td>
<td></td>
<td>Ipswichian interglacial</td>
<td>Last Interglacial – climate similar to southern France &amp; Northern Spain 130,000 to 118,000 BP. Evidence for fluctuating warm/cold conditions 118,000 to 70,000 BP.</td>
</tr>
<tr>
<td>Early Upper Palaeolithic</td>
<td>30,000 to 12,000 BP</td>
<td>Homo sapiens (modern humans), blade based stone tools. Neanderthals disappear 30,000 BP. Cave art begins in Europe</td>
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<tr>
<td></td>
<td></td>
<td>Devensian glaciation</td>
<td>Early Devensian– climate similar to modern Scandinavia</td>
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<tr>
<td></td>
<td></td>
<td>Human populations probably migrated to warmer conditions in France and Spain. Tundra environment populated by woolly rhino, woolly mammoth and reindeer</td>
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<tr>
<td></td>
<td></td>
<td>Glacial maximum 20,000 to 18,000 BP. Ice extending south to Norfolk, Wolverhampton and South Wales</td>
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<tr>
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<td></td>
<td>People, animals and plants repopulating Britain. Cave art in the Creswell Crags approx. 15,000 to 13,000 BP</td>
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<tr>
<td></td>
<td></td>
<td>Ice sheets receding, climate becoming progressively warmer</td>
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<tr>
<td>Late Pleistocene</td>
<td></td>
<td>Extinction of megafauna species. Hunter-gatherers, end of cave art in Europe</td>
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<tr>
<td></td>
<td>12,000 to 10,500 BP</td>
<td>Flandrian interglacial</td>
<td>Climate 1 or 2˚C warmer and wetter than present. Thermal maximum 7,000 to 6,000 years ago.</td>
</tr>
<tr>
<td>Mesolithic</td>
<td>8,500 to 4,000 BC</td>
<td>猎人采集者, 微型工具行业, 森林清理, 开放区域的开放点</td>
<td></td>
</tr>
<tr>
<td>Neolithic</td>
<td>4,000 to 2,400 BC</td>
<td>Origins of farming, pottery manufacture, settled communities, major forest clearance, growing population, megalithic monuments</td>
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<tr>
<td>Bronze Age</td>
<td>2,400 to 700 BC</td>
<td>Introduction of metalwork, increased social hierarchy and economic links with the continent, individual burial practices, megalithic monuments</td>
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<tr>
<td>Iron Age</td>
<td>700 BC to AD 43</td>
<td>Development of iron weapons and tools, new agricultural practices and permanent settlement, defensive structures (hill forts)</td>
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<tr>
<td>Roman-British</td>
<td>AD 43 to 410</td>
<td>Roman Empire annexation brings developments in agriculture, urbanisation, industry, architecture and religion</td>
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<tr>
<td>Early medieval</td>
<td>410 to 1066</td>
<td>Anglo-Saxons and Vikings. Arrival of Christianity</td>
<td>Return to cooler climate</td>
</tr>
<tr>
<td>Medieval</td>
<td>1066 to 1500</td>
<td>Normans, Wars of the Roses, the Tudors (Henry VIII, dissolution of the monasteries)</td>
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<tr>
<td>Post-medieval</td>
<td>1500 to 1800</td>
<td>The Tudors (Elizabeth I), the Stuarts, English Civil War, the Restoration</td>
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<tr>
<td>Modern</td>
<td>1800 to Present Day</td>
<td>WWI and WWII</td>
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**Climate warmer than Britain today**

**Ice extending south to London and Bristol**

**Climate warmer than Britain today**

**Ice sheets receding, climate becoming progressively warmer**

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**Post-medieval**

**The Little Ice Age 1450 to 1890** (ice fairs held on the Thames)

**Moderate climate amelioration**

**General cooling of climate 4,500 to 2,500 years ago**

**Return to cooler climate**