Dredged Up

Issue 28
Spring 2021

Archaeology Finds Reporting Service Newsletter

Welcome to Issue 28 of ***Dredged Up***, the newsletter of the Marine Aggregate Industry Archaeological Protocol. Since the last newsletter in autumn 2020, **17 finds** have been reported though 14 reports.

On pages **2** and **3**, we celebrate another amazing round of finds awards, naming best attitude by a wharf, best attitude by a vessel and best find. The competition was tough this year so congratulations to all our winners!

Pages **4** and **5** showcase a selection of finds that have been reported since the last issue of *Dredged Up*. We appreciate every find that has been reported, especially in light of changes to operations due to Covid-19.

Munitions and firearms are a hot topic in this issue. See pages **6** and **7** to learn more about them.

On page **8**, we meet some of the wonderful Nominated Contacts that represent some of the aggregate companies involved with the Protocol.

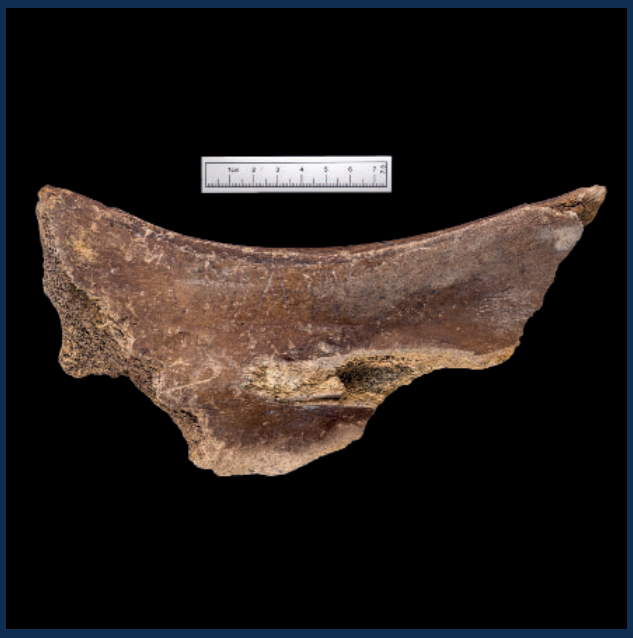
New promotional material!

This spring, we've introduced the new Marine Aggregate Industry Archaeological Protocol pens that we hope you love just as much as we do.

If you need any more or if you would like to get in touch with the team for any remote training or mugs and photo scale cards, then please contact us by emailing protocol@wessexarch.co.uk or call 01722 326867.

2019–2020 Finds Awards

It's time to celebrate the annual Finds Awards! In this issue, we are pleased to announce the winners and runners up from the 2019–2020 reporting year which runs from 1 October 2019 until 30 September 2020. Anything found after this date will be considered for the Finds Awards in spring 2022. For details about all of the discoveries that were made during the 2019–2020 reporting year, you can access and download a copy of the Annual Report online: https://tinyurl.com/3397m4u7



Best Attitude by a Wharf

This year, the winner of the best attitude by a wharf is Hanson Dagenham Wharf. In November 2019, staff at the wharf discovered a collection of worked flints (including handaxes) and animal bones from Licence Area 240 in the East Coast dredging region. Within a few days of the reports being made, an Operational Sampling visit was carried out by a team of archaeologists alongside the wharf staff. During this visit, 30 flint artefacts including five handaxes dated to the Middle Palaeolithic, and 111 pieces of animal bone were recovered including a rhinoceros scapula with hyena teeth marks (pictured). Subsequently, the wharf has been visited frequently to monitor these cargoes and several more finds of handaxes and animal bones have been made. A designated shovel driver is assigned to the team so that the sampling is done efficiently by spreading the material thinly so that it can be inspected. The drivers also show their interest and assist the archaeologist with their work. A new bay was designed and constructed at the wharf of their own accord in order to isolate the desired cargoes to make the job easier. A large new finds cabinet has also been purchased in order to display all the finds discovered at the wharf. The enthusiasm of the staff at the wharf and their attitude towards the archaeology and archaeologists alike has been exemplary and we can't thank them all enough. We would like to give our special thanks to Aaron Chidgey (pictured), Troy Porter and Michael Perkins.

Best Attitude by a Vessel

This year we would like to congratulate Hanson's *Arco Avon* for winning this award, and especially the finder, Darryl Mason. Thank you to each vessel that has reported finds through the Protocol over the past reporting year.

Hanson's *Arco Avon* discovered a mammoth tooth (Hanson_0935) from Licence Area 240 in the East Coast dredging region, approximately 10 km east of Great Yarmouth.

The tooth is virtually complete with visible roots and measures 300 mm long by 160 mm wide. Images of the find were sent to Professor Adrian Lister at the Natural History Museum for further identification, who said that it is a nice specimen of a mammoth tooth. He said it's the third (last molar) of an animal about 35 years old that dates very probably to the Late Pleistocene woolly mammoth (*Mammuthus primigenius*), although he would have to take measurements to rule out the earlier (Middle Pleistocene) *Mammuthus trogontherii*. He said much of the cement has been eroded between the plates, presumably through its time at the bottom of the sea, but the roots are so complete that he wouldn't be surprised to find the skull, or parts of it, still on the seabed. *Mammuthus primigenius* or woolly mammoth were in existence in Europe during the late Middle and Late Pleistocene, dating from 350,000 to 10,000 years ago, while the early Middle Pleistocene *Mammuthus trogontherii* (0.7 to 0.5 million years ago) (Lister and Sher 2001). Important changes can be seen in the teeth of the mammoths as each species evolves; there is an increase in the number of enamel bands (plates) in the molars and thinning of the enamel. The dental changes resulted in increased resistance to abrasion, which is believed to indicate a shift from woodland browsing to grazing in open grassy habitats of the Pleistocene.

The mammoth tooth is now being conserved and it is hoped that it will find a home in the Natural History Museum.

Reference

Lister, A M and Sher, A V 2001 The Origin and Evolution of the Woolly Mammoth. *Science* (volume 294(5544), 1094-7).

Best Find

The best find of this reporting year goes to DEME_0957; a post-medieval jug that was discovered from Licence Area 340 in the South Coast dredging region, approximately 8.5 km south-east of the Isle of Wight. Gerard Kegel discovered it at DBM Vlissingen wharf in the Netherlands.

This metal jug measures approximately 130 mm wide by 130 mm tall. It has an ornate decoration on the pouring spout in the design of a bearded man, a stamp in its centre and an oval cross section. The handle and spout appear to be made from a different metal to the body due to the corrosion visible on them. It is complete apart from damage to the reverse and the base is missing.

Images were sent to Wessex Archaeology's Senior Archives Manager, Lorraine Mepham, who said that she had never seen anything like it. She said it is definitely post-medieval, and deliberately oval in cross-section rather than just squashed. The spout and handle appear to have some sort of plating which has differentially corroded. She said that the details of the stamp aren't clear, but it is in script lettering and is probably a set of initials or a monogram, though whether this relates to the manufacturer or the owner is not clear, although it's probably the latter. Although there are no direct parallels to the jug, a similar spout was found on a mid-19th century English silver coffee pot. Similarly, a Dutch silver hot chocolate pot, dated to c. 1853–1859 was noted as having a bearded seaman as the spout. Lorraine suggested that the shape of the handle, and the style of the script lettering on the stamp, suggest that it is 18th or 19th century in date. The age of the pots displaying similar spouts also support this.

Images were also shown to Steve Beach, Project Manager at Wessex Archaeology, who said that the jug may be made of pewter. He said that different batches of pewter will corrode differently depending on its composition, which may explain why the handle and the spout are corroding differently to the body. Steve also said that the mark is reminiscent of an 'owners mark'.

Owners often applied their own marks to pewter. On plates, dishes and chargers these were usually just a simple triad of initials stamped on the rim, the centre initial being the surname and the other two the forenames of the husband and wife. Marks with two or four initials are also found while some owners had crests or shields engraved on their pewter, whilst institutional owners might stamp their name or symbol.

On drinking vessels such as this one, owners tended to engrave either a monogram or the full name and address. These are particularly common on drinking vessels used in pubs during the 19th and 20th century as a deterrence against theft.

All our winners receive a £100 cheque and a certificate of their achievement. Congratulations to all of you!

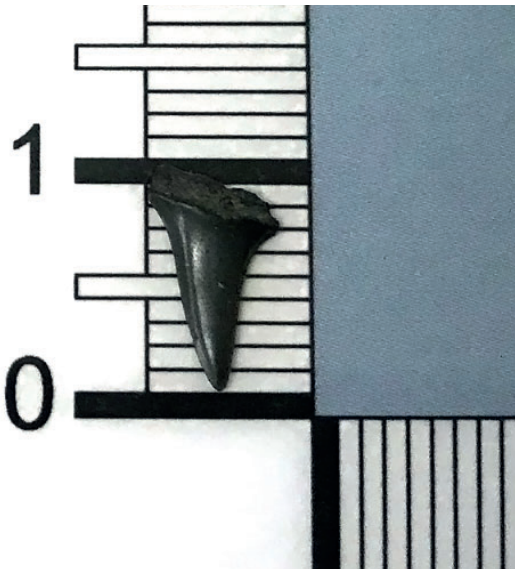
Finds reported since the Autumn

Tarmac_0977

Tarmac_0977 is a small cast iron cannonball that was discovered by Barry Gardner at Marchwood Wharf in Southampton. The Licence Area it came from is unknown. The cannonball has a diameter of 45 mm or 1.8 inches. Charles Trollope, an expert in historical ordnance, studied the images of the find and based on the measurements provided with the scale, said that the cannonball seems to be compatible with an English 18-pounder but could be for a Dutch or French 16-pounder. A sign of a mark on the surface, for example a Broad Arrow, could narrow the possibilities down. The 18-pounder long gun was an intermediary calibre piece of artillery mounted on warships of the Age of Sail (mid-16th to the mid-19th centuries). They were used as main guns on the most typical frigates of the early 19th century. As the 18-pounder calibre was consistent with both the French and the British calibre systems, it was used in many European navies between the 17th and the 19th century. The Canon de 16 Gribeauval was a French cannon and part of the Gribeauval system developed by Jean Baptiste Vaquette de Gribeauval during the 18th century. It was part of the siege artillery. The canon de 16 Gribeauval was used extensively during the wars following the French Revolution, as well as the Napoleonic wars. Cannonballs are a common find around the south and east coasts of England as, with an extensive naval history, military training and battles have taken place along this stretch of coastline for hundreds of years. It is not possible to say whether it was fired during training, battle or perhaps just lost overboard, however, the flattened edges indicate it may have been used in combat.

CEMEX_0980

CEMEX_0980 is a shark tooth that was recovered from Licence Area 512 in the East Coast dredging region, approximately 14.5 km east-north-east of Lowestoft. Andrew Lingham discovered it at Northfleet Wharf. This measures 10 mm by 7 mm. Images of this find were sent to the Natural History Museum where they were shown to the shark specialist, Charlie Underwood. He said that this is clearly a shark tooth, and the dark colour of the specimen shows it is not modern. He said that as it was found off Suffolk, it is almost certainly from the London Clay formation and possibly reworked through Plio-Pleistocene crags. He said that the tooth is not identifiable, but the general shape fits with a lateral tooth of *Striatolamia*, the commonest larger shark in the London Clay. The London Clay formation is a British marine deposit that is significant in the history of palaeontology generally, and palaeoichthyology (the scientific study of prehistoric fish) specifically. *Striatolamia* is an extinct species of sharks belonging to the family Odontaspididae. These extinct sharks lived from the Early Paleocene to Late Miocene (61.7 to 10.3 million years ago). The Latin genus name *Striatolamia* refers to the striations on the surface of the teeth. *Striatolamia* species could reach a length of about 3.5 m. The anterior teeth have elongated crowns, with striations on the lingual face and small lateral cusplets. The lateral teeth, such as the one discovered are smaller and broader, with weaker striations. Finds like this one, whilst very interesting, are not technically archaeological as archaeology covers only the human past, and people have lived in Britain for only around 900,000 years. This find is palaeontological in origin, however, and every credit should be given to the wharf for finding such a small object and for reporting it.



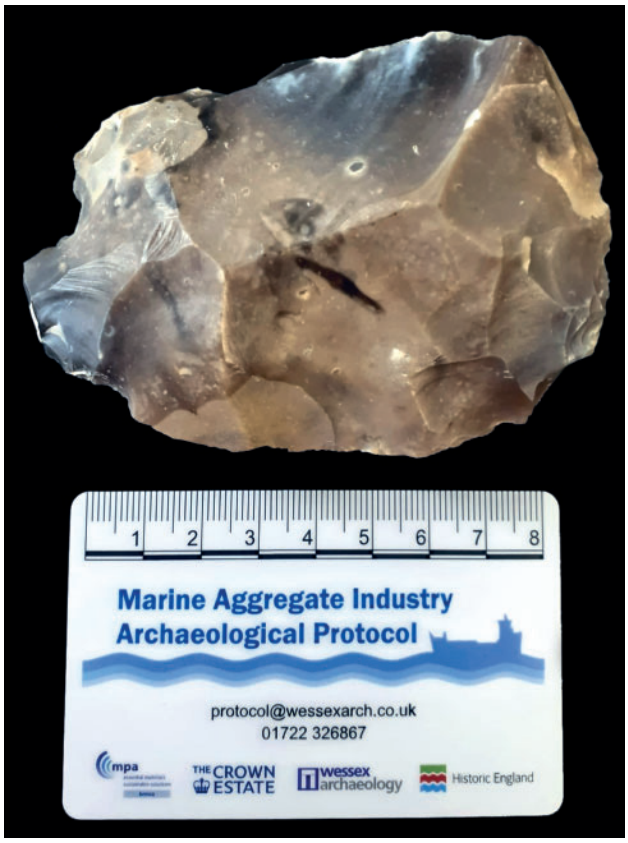
Tarmac_0978

Tarmac_0978 is a white ensign flag that was recovered from Licence Area 254 in the East Coast dredging region, approximately 10 km north-east of Great Yarmouth. Jack Tate discovered it on board Tarmac's *City of London*. This flag is the top left corner of a larger white ensign flag. The larger, whole flag would comprise a white flag with a red cross, like the St George flag with the addition of the union jack in the upper left corner. This find is believed to be relatively modern. Royal Navy ships and submarines wear the White Ensign at all times when underway on the surface. The logo of the Royal Navy features a waving White Ensign at the top. The white ensign is also flown on shore establishments including all Royal Marines establishments as well as yachts of members of the Royal Yacht Squadron and by ships of Trinity House escorting the reigning monarch. The White Ensign is worn at the mastheads when Royal Navy ships are dressed on special occasions such as the Queen's birthday, and may similarly be worn by foreign warships when in British waters when dressed in honour of a British holiday or when firing a salute to British authorities. The Ensign was first introduced in the 15th century when it consisted of a Tudor ensign, with the current version of flag developed in 1707. Other versions of

the ensigns are also used. A Red Ensign is the official flag used for merchant vessels while the Blue Ensign indicates a ship commanded by an officer of the Royal Naval Reserve.

Hanson_0972

Hanson_0972 is a handaxe that was recovered from lane F10 in Licence Area 240 in the East Coast dredging region, approximately 10 km south-east of Great Yarmouth. Aaron Chidgey discovered it at Dagenham Wharf. The handaxe measures approximately 110 mm long and 60 mm wide. It was recovered from lane F10 that is now a part of the new Archaeological Exclusion Zone in Area 240 which means no more dredging can take place in the lane. The images were shown to Phil Harding at Wessex Archaeology who said that he would need to see the handaxe in the flesh to be able to analyse it. It is hoped that this can be done once travel is once again permitted. It is likely that the handaxe dates to the Palaeolithic period when the seabed around the United Kingdom was dry land due to water being 'locked' in the ice sheets that covered much of North Western Europe. During these periods of low sea levels, the current North Sea and the English Channel were exploited by humans and animals. If the provisional dating proves to be correct, these tools were made by Neanderthals (*Homo neanderthalensis*).



Clubbs_0975

Clubbs_0975 comprises three pieces of metal debris recovered from Licence Area 512 in the East Coast dredging region, approximately 14.5 km east-north-east of Lowestoft. Kevin Cruickshank discovered it at Clubbs Marine Aggregates Wharf, Gravesend. Three metal pieces were reported and thought to belong to aircraft due to the visible rivets and rivet holes on all of the pieces. The measurement of the largest piece is unknown however the second longest piece measures approximately 300 mm in length and has a curved profile. The object shaped like a cross is 260 mm at its widest point. Images of the possible aircraft related pieces were sent to external aircraft specialist, Steve Vizard, who said that despite the rivet holes, these parts do not appear to be aircraft related. He said that the shape and form of the cross shaped part does not look like any aviation item that he is familiar with, and the longer section looks to have steel rivets or fasteners in the aluminium section which is not usual. Steel rivets were sometimes used in high stress areas on the aircraft, but it wasn't normal practice. Despite this, he said he would be inclined to conclude that these are not airframe components. Instead, they could be related to a more modern wreck site as rivets were used to join iron or steel components together in ship building and other construction works before the use of welding in shipbuilding during the Second World War. However, images were sent to Senior Naval Engineer, Anthony Mansfield, who said he does not recognise them as part of a ship, therefore their origins are unknown. As the finds are not thought to be aircraft fragments, the remains are not considered to be contentious, although the discovery of further remains from the same area should be reported immediately as they could provide clues to identify the type of site that these finds derived from.

Munitions – A Guide

All marine aggregate dredgers and wharves should have emergency procedures in place that apply in the event that any ordnance (guns, bullets, shells and cannonballs) be recovered - these procedures take precedence over any archaeological reporting requirements. However, discoveries of ordnance may be of archaeological interest, and they should be reported through the Protocol if it is possible and safe to do so. Munitions are the weapons, or the weapons systems used in combat, while ammunition refers to the charges needed for the weapons or the weapons systems.

What to do?

When a munition is found, a competent person will need to make a decision on what action to take and whether the munition is assessed as inert or other (live or blind). This initial assessment may be carried out by an appropriately trained employee or contractor who holds a current, approved Explosive Ordnance Disposal (EOD) qualification defined as Level 1 trained. Where a competent person or contractor has not been appointed then the munition must be assumed to be live or blind and the appropriate action taken. In the event that items are assessed to be blind or live munitions they will need to be rendered safe either by military EOD or an appropriate third-party commercial EOD contractor with equivalent competence defined as Level 2 trained.

Retaining live/blind munitions at a site beyond 24 hours of discovery is an offence under the Manufacture and Storage of Explosives Regulations 2005 unless held in a licensed store.

Further information on dealing with munitions in marine sediments published by The Crown Estate and Mineral Products Association in 2010 can be found online: https://bmapa.org/documents/Dealing-with-munitions-in-marine-sediments.pdf

Firearms Act 1968 Section 5

A Section 5 authority is needed to handle prohibited weapons, component parts and prohibited ammunition as holding them without one is an offence. This relates to firearms, therefore, if any firearms or parts of firearms are recovered by a vessel or on a wharf, these also need to be reported to the police or EOD and rendered safe if it is to be kept for display purposes.

Tarmac_0985 case study

This machine gun was discovered in January 2021 from a mixed cargo deriving from Licence Area 509/3 in the Thames Estuary and Licence Area 460 in the East English Channel. Jamie Wallis discovered it at Greenwich Wharf.

This machine gun was reported in two parts and displayed several markings including a serial number 'B194.466' that the wharf took excellent close-up photographs of.

Images were sent to Graham Scott of Wessex Archaeology's Coastal & Marine team who provisionally identified the gun as a Browning .50 calibre ANM2 fixed aircraft machine gun. He also said that the calibre was questionable and could be a .30 or .303 –as the 0.50 calibre barrel seems to have had a different part number from the one on this example.

Images were also sent to Jonathan Ferguson, Keeper of Firearms & Artillery at the Royal Armouries Museum, Leeds. He said that this is a Browning .303 and the B prefix on the serial number denotes manufacture by Birmingham Small Arms Company (BSA). Through comparison of other guns, Jonathon estimated a date of 1941 for this machine gun. The barrel of the gun is Mk. III while the breech casing is a Mk. II*, and the only way to know whether this was built as a Mk. II and converted or not would be via production information.

As the gun is known to be from an aircraft, the images were sent to external aircraft specialist, Steve Vizard, in order to determine what kind of aircraft it may have originated from. He said that it is very difficult to even begin to guess at an aircraft type for a Browning like this. Unfortunately, the vital clues are not there. It's the mounting attachments that would provide evidence of type (the lug bracket with the two holes on the bottom of the gun body). These were reasonably distinctive as to what aircraft the guns were fitted to, for example, quite different for static fixed in a fighter wing, as opposed to a gun turret in a bomber. And invariably this attachment bracketry would have part numbers denoting manufacturers. It's a bit like trying to identify a particular car model just by looking at a generic engine block fitted to a variety of cars when it is actually the attachments and ancillaries that are specific to a particular model and the difference is in the installation and attachment. It is just the same with the standard Mk II Browning, fitted in dozens of different types, but differentiated by attachments. The only other clue is the fluted end to the muzzle of the barrel, as opposed to the flash eliminator. That can sometimes denote fighter or bomber, but sadly is completely missing from this example.

The .303 Browning was an adaptation of an American design adopted by the RAF in 1937. During the Second World War the Browning armed a variety of British aircraft, either mounted in the wings or in power-operated turrets. The eight-gun armament of the Hurricane and Spitfire was predicated by the perceived need to deliver a sufficient volume of fire to destroy an enemy bomber in a burst lasting not more than two seconds. The eight guns could deliver 320 rounds in this time. In reality, the dispersion of this fusillade still made it difficult to bring down a large aircraft, meaning that cannon-armed fighters became the norm from 1941 onwards.

As per the Firearms Act 1968, the machine gun was reported to the police as a Section 5 firearm as withholding it would be an offence. Although the gun is in two pieces and not functioning, it is still viewed as a weapon as it could be used for parts. The police are now in possession of the find.

Nominated Contacts

Each of the registered BMAPA companies has a Nominated Contact that we correspond with directly. They are crucial in the running of the Protocol as they report the finds directly to us after having received the information from the wharf and vessel staff. We would like to thank you all for your support and the extra miles you go to, to ensure the level of reporting is kept to a high standard.

Dr Nigel Griffiths (Resources Manager)
Hanson Marine

I have been at Hanson Marine for 10 years and the Palaeo-Yare story we have been involved with has been fascinating. Becoming aware of the importance, age (250,000 years +) and rarity of these finds and appreciating early man's development in NW Europe is incredible. A particular moment of interest came in visiting the Natural History Museum with a bone recovered from Dagenham Wharf from cargo dredged from Licence Area 240 showing scratch marks (axe / knife marks or natural?). Specialists were able to show the true origins of the marks (teeth marks from a hyena) and compare with man-made toolmarks from the famous Boxgrove site another 200,000 years older. The whole concept of geological time and our part in it has been very thought provoking.

Richard Fifield (Marine Resource & Compliance Manager)
Britannia Aggregates Ltd

I am really proud of the very effective Protocol and reporting process that our industry has developed and adopted and that is administered so well by Wessex. It is really interesting to read *Dredged Up* and to see some of the artefacts that our vessels have found. With a geological background I am of course keen to see what fossils have been unearthed but am equally fascinated by the WWII and more ancient objects. I very much hope that this valuable and useful record keeping can continue well into the future.

Edward Skinner (Resources Project Manager)
Tarmac

I have been at Tarmac for almost nine years now and one of my most memorable moments was handing over a propeller blade with bullet hole to Tangmere Military Aviation Museum. This fascinating fragment of crashed aircraft was dredged up with sand and gravel from a licence area seven miles south-west of Selsey Bill. I handed the blade to the museum's chairman and in the background of the photograph shown here are the remains of the British fighter aircraft that most probably shot down the German Stuka dive bomber from which this propeller blade and several other engine fragments originated. The British Hawker Hurricane fighter was stationed at Tangmere RAF Base, now a museum, which is just a two minute drive from our office. This is definitely the archaeological highlight for me and exemplifies what I think is great about the Protocol. From something seemingly small and insignificant found in the cargo, you can uncover some amazing historical stories. I really appreciate the enthusiasm and engagement from the teams on all the wharves and ships in finding and reporting objects of interest, whatever they might be. The protocol is proving to be such a success with their continued support.
Long may it continue.