

# Dredged Up

Issue 36  
Spring 2025

Archaeology Finds Reporting Service Newsletter

Welcome to Issue 36 of ***Dredged Up***, the newsletter of the Marine Aggregate Industry Archaeological Protocol. Since the last newsletter in Autumn 2024, **13 finds** have been reported in 9 reports.

## Cemex Open Day

The Open Day was organised by Cemex for students to get acquainted with the marine aggregate industry. Cemex also invited a range of stakeholders to show students the range of different types of companies who work together with Cemex in the marine aggregate industry, like ground minerals and, of course, archaeology!

The Implementation Team was therefore most delighted to receive an invitation from Cemex employees during an awareness visit to participate in the Cemex Open Day!

The Protocol Implementation Team explained to students how Cemex and Wessex Archaeology work together to protect our mutual archaeological heritage. Students could see and feel real archaeological objects (the same ones used in the Awareness training) and ask their questions about archaeology.

The Open Day was held at St. Mary's Stadium, Southampton and students had the opportunity to visit the Cemex Wharf nearby and go onboard a vessel. Thanks again, Cemex, for providing us with the opportunity to connect with potential future aggregate staff or even archaeologists and share how the aggregate industry continues to contribute to our understanding of heritage.





## 2023-2024 Finds Awards

Another year down and another year to celebrate the annual Finds Awards! This year, we are pleased to announce the winners for the 2023–2024 reporting year, which ran from October 2023 to September 2024. Finds that have been reported after those dates will be counted towards next year’s awards. If you would like to know more about some of the finds that were reported during 2023–2024, you can access the Annual Report online at: [www.wessexarch.co.uk/our-work/marine-aggregate-industry-protocol-reporting-finds-archaeological-interest](http://www.wessexarch.co.uk/our-work/marine-aggregate-industry-protocol-reporting-finds-archaeological-interest)

### Best Find

Like every year, choosing just one find to win this award is very difficult. With over a hundred finds reported in the 2023–2024 cycle (107!), there are a lot to choose from. One of the most interesting and impressive finds has to be the two oxygen cylinders reported from Frindsbury Wharf, **Heidelberg\_1132**. Both cylinders are of the same size and type, with clearly visible markings embossed around the top of the cylinders by the valves. The cylinders were identified as being manufactured and used by the German Luftwaffe

during the Second World War. The operating altitude of aircraft during the Second World War was such that oxygen was needed to be carried inside the aircraft so that the pilots could breathe. A single engine fighter aircraft could be equipped with a pair of cylinders like this, while larger multi-crew aircraft could need over a dozen.

Unfortunately, the generic and ubiquitous nature of these cylinders means that it was not possible to connect these items to any one particular aircraft. The stamping around the neck of the cylinders relates to dates of manufacture and pressure testing. As these cylinders were found without any kind of rack or fittings it is unlikely that they came from a larger aircraft. The type of cylinder does suggest a date fairly early in the Second World War, around 1940. Later cylinders were coated with a dark blue anodic finish, and then toward the end of the war they would change to a more bulbous shape.

It is unsurprising that aircraft finds are among the most interesting that are recovered during marine aggregate dredging. Due to the Second World War, there are more aircraft wrecks in the waters around the United Kingdom than anywhere else in the world. Crews should remain observant for any aircraft material that may be recovered in the future, as it helps us better understand a crucial period of our past and better remember the sacrifices of those men and women who lived through it.

*Below: Early Second World War Luftwaffe Oxygen Bottles*



### Team News

We’re welcoming a new member to the Protocol Implementation Team here at Wessex. Palaeolithic Archaeologist **Beccy Scott** joined Wessex Archaeology in September 2024 as a Marine Geoarchaeologist. She is a Neanderthal stone tool specialist who previously worked at the British Museum and is particularly interested in animal bones from the seabed. Beccy is working on a number of projects investigating submerged landscapes around the UK and has already taken part in operational sampling visits.





### Best Attitude by a Wharf

The winner for best attitude by a wharf for the 2023–2024 reporting year is Tarmac Tilbury! They reported a total of seven finds during last year’s reporting cycle and were the first wharf to report a find in this year’s, great start! Some notable finds from Tarmac Tilbury wharf are **Tarmac\_1162**, a wrought iron axe head, and **Tarmac\_1164**, an iron hook. Both of these finds most likely came from maritime activity in the region and help demonstrate the past and continuing connection between the British Isles and the sea.



### Best Attitude by a Vessel

While we want to spread the love, *Britannia Beaver* are making it difficult. For the second year in a row, they have gone above and beyond, reporting 13 finds during the 2023–2024 reporting year. A particularly nice find was **Britannia\_1107**, a parachute buckle. This find dates from the Second World War and is an extremely personal find. A functioning parachute was a vital piece of equipment to Allied airmen.



Top right: Wrought iron hook, **Tarmac\_1164**

Middle right: Corroded iron axe head, **Tarmac\_1162**

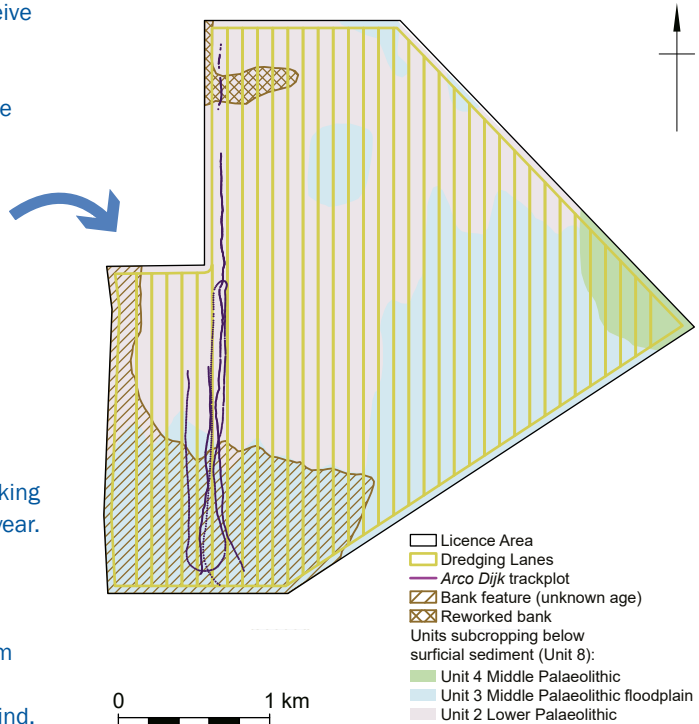
Below: Second World War parachute buckle, **Britannia\_1107**



## A sneak-peak: The Wessex Archaeology finds process

During wharf visits, we often receive the following question: 'what happens to our reported finds?'. In this section, we explain our finds process in more detail.

1. When a find is reported through the Protocol, we receive an automated email with information about the find. Sometimes we receive emails about finds directly from wharf or vessel staff, which we can upload to the Protocol and notify the Nominated Contact.
2. We add the find to the Protocol console (our secure online database), which generates a unique find ID. Some basic information about the find is added to the console, including a description, the number of individual finds and material type. If we need more information, such as the vessel trackplot, we contact the Nominated Contact.
3. We collate the photos of the find in a project file specifically for each find and update our internal tracking spreadsheet that contains all finds from the current year.
4. Sometimes we receive a find directly from the wharf itself. This may happen during Operational Sampling visits and Awareness Visits. The Implementation Team brings the find to our Wessex Archaeology Office and start with cleaning, labelling and photographing the find. Since the find is stored at our office, details of the find are also included on our Finds Database.



Above: Trackplot of the dredger Arco Dijk within Licence Area 242/361, recorded in April 2024



Finds cleaning at Wessex Archaeology, prior to labelling and storage

5. After the basic administration of the find is done, we start to research the find and write an accompanying report. It can be surprising how much can be learned, even about isolated artefacts, for instance, **Heidelberg\_1159**, seen below. This little piece of wood contained evidence from our seafaring past and an opportunity to learn more about shipbuilding in general. It's great to gain more knowledge and understanding about our different marine artefacts. Sometimes we consult with different internal and external specialists about the artefacts, for instance flint material has been researched by our internal flint specialists.



6. We include the find in our Geographic Information System (GIS) spatial mapping. This system contains a map of England with all the current dredging areas and different vessel trackplots. For finds without an accurate discovery location, we use the centrepoint of the trackplot to provide a general location of the find (or the centrepoint of the licence area if a trackplot is not available, but trackplots give us a much better idea of the distribution of finds across an area). The location of the finds can reveal archaeologically interesting areas, for instance, aviation material reported in one area could indicate a nearby wreck site. Significant discoveries could lead to the implementation of an Archaeological Exclusive Zone (AEZ) to protect any remains that could still be on the seabed. No dredging can take place within this AEZ until the site is investigated further and additional mitigation is put in place.

7. Once the find report is finished, we send it to the Nominated Contact, the National Marine Heritage Record, maintained by Historic England, the Receiver of Wreck, The Crown Estate and local Historic Environment Records.

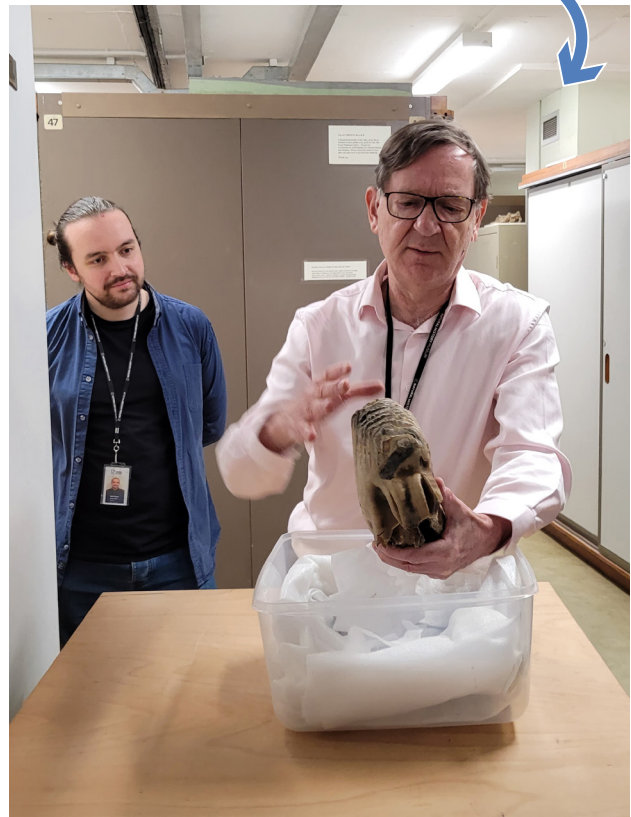
8. The final version of the report is included in the Annual Report, ensuring that each finds report is readily available to all aggregate staff and to future researchers. Summaries of the reports are included in *Dredged Up*, for example, see the ones on pages 6-7 and on Facebook.

Previous editions of the Annual Report, which contain final versions of the year's finds reports, and *Dredged Up*, which contains summaries of finds reports, can be found at:

[www.wessexarch.co.uk/our-work/marine-aggregate-industry-protocol-reporting-finds-archaeological-interest](http://www.wessexarch.co.uk/our-work/marine-aggregate-industry-protocol-reporting-finds-archaeological-interest)



9. Sometimes special finds receive a place in a museum, like 'Cedric' the mammoth tooth that is now on display at the Natural History Museum, London. We contact museum curators about the find and personally transfer the delicate finds to a museum.



10. Most finds are stabilised and stored either at the Wessex Archaeology Office or at wharves. We provide advice and feedback to the wharves regarding the proper storage of various (marine) artefacts. All wreck-related finds are reported to the Receiver of Wreck, who has one year to determine the ownership of these artefacts. If no owner is found or the owner cannot be identified, the find could be transferred to a museum. In some cases, finds are included in our teaching and handling collections, or the wharves may request the artefacts to display them in their own display cases.

**I hope you enjoyed our sneak-peak into our finds process!**

## Finds Roundup

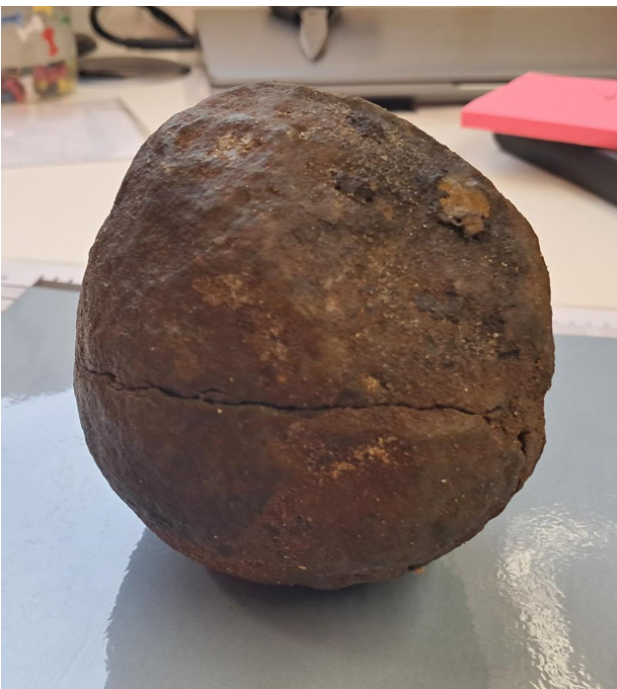
### Tarmac\_1170 – Cannon ball

This cast iron cannon ball (seen below) was found at Tilbury Wharf after dredging in the East Coast region. Cannon balls (or round shot) are some of the earliest forms of projectiles fired from cannons.

From the 17th century onwards, cast-iron cannon balls were a long-range and accurate projectile fired with the use of a smooth bore cannon. The sheer force of cannon balls could rip apart a wooden ship's hull, making them a significant weapon for use in naval conflicts.

This cannon ball likely ended up on the seabed off the east coast of England in the 17–18th centuries. During this time, England was undergoing expansive naval pursuits, most notably the Anglo-Dutch Wars, which lasted over a hundred years. The Dutch had a large naval fleet and were maintaining a monopoly of trade in Asia and the Baltic, and conflicts between the two nations led to heavy naval engagements between the coasts of England and Europe. These were important disputes in naval history due to the struggle to gain control of trade routes that affected commerce during this time.

There have been many cannon ball finds in the East Coast dredging region, from the many naval skirmishes that are represented from the Anglo-Dutch Wars of the 17th century through to the Napoleonic Wars of the early 19th century. Due to the location of these finds, it is suggested that they could be a result of the Battle of Lowestoft 1665 (the first engagement of the Second Anglo-Dutch War) or Sole Bay 1672 (the first engagement of the Third Anglo-Dutch War).



### Brett\_1171 – Mariner's Lantern

Discovered at Newhaven Wharf, this lantern (seen above) appears to be one used for navigational purposes and was found in dredging Licence Area 340. It is identified by the ring on the top and the furrowed glass design. The object measures 110 x 95 mm. Use of lanterns became maritime law in the 1800s, suggesting this find could be from that period up until modern advancements in navigational signalling. Lanterns in the 19th and 20th centuries were made of brass, copper, iron, wrought iron and steel. The level of rust on the find indicates that the likely material used was wrought iron or a cheaper grade of steel. Due to its size and the round loophole on top, it was likely used as a lantern signalling port and starboard on a vessel. Lanterns for the port side were illuminated in red, whilst the starboard was green. This was important for vessel-to-shore communication, position and orientation.

Red and green are opposites on the colour wheel, making them ideal colours to indicate left and right. Red glass was used for navigational lighting of ports and harbours, as it was easier to come by than green. Historically, starboard is believed to be a Norse seafaring word, as they steered on the right side of the ship.

Traditional oil and kerosene burning lighting have been replaced by more modern and durable illumination with the help of electricity and the manufacture of popular advances such as LED and solar. Different combinations and colours have advanced to display an array of 'maritime rules of the road' for navigation and communication with other vessels and the shore.

## Heidelberg\_1176 and Heidelberg\_1177 – Animal Bone

These animal bone fragments were discovered onboard *Hanson Thames* in Licence Area 473/1 in the East English Channel region and are from large mammals, possibly an elephant or mammoth. **Heidelberg\_1177** (Image A, below) could have been part of the pelvis and as old as the Quaternary (2.58 million years to present) due to the level of mineralisation. **Heidelberg\_1176** (Image B, below) is a long bone shaft, but an unknown fragment, which is also heavily mineralised. Megafaunal remains may end up in a marine context after having been washed from terrestrial deposits by rivers or eroded from cliffs or beaches or simply been in areas that were dry land during the glacial periods in the Pleistocene and Holocene that have since been inundated by the sea. During the geological epoch of the Pleistocene (2.6 million to 11,700 years Before Present (BP)), Earth went through extreme glacial and interglacial periods brought on by the Milankovitch Cycle: small changes to the Earth's orbit and axis, which lessens the effects of the Sun, resulting in cooler periods. This caused vast ice sheets to form, lowering sea levels by 300 m and exposing areas like Doggerland, which connected Europe to Britain. Doggerland was an open and forested landscape with periods of animal and human occupation before it was submerged again by the North Sea around 7000 BP. Submerged prehistoric landscape deposits studied by specialists contribute to our understanding of human movement. The separation of the British Isles from the mainland is important in the studies of Palaeolithic and Mesolithic research.

Finds reported through the Protocol contribute to the archaeological record of submerged landscapes. The evidence of earlier megafauna bones and fragments in marine contexts is not uncommon. Megafaunal remains help to identify and understand Palaeolithic and Mesolithic human dispersal patterns, as early humans would follow food sources. Although there is no human material culture associated with these two finds, they still contribute to the migration patterns of large mammals within the submerged landscape.



## Heidelberg\_1178 – Wooden Ship Components

These four wooden fragments (seen below) were recovered during an Operational Sampling visit to Heidelberg Wharf, Dagenham. The cargo they were found in was dredged from the northern section of Licence Area 240.

It can be difficult sometimes to be sure if a piece of wood or timber is a piece of a man-made object or is just an oddly shaped piece of driftwood. Luckily, each of the four pieces comprising **Heidelberg\_1178** shows signs of 'working'. This means we can see where a person has intentionally shaped or altered an object in order to make it into something useful. In this case, turning the pieces of timber into components for a wooden ship or boat.

The three larger pieces all show evidence of treenail holes. The most intact treenail hole suggests the treenails were roughly 40 mm in diameter. The smaller piece has indentations that suggests it was fastened with nails, leaving small circular impressions in the wood. A treenail is a wooden peg, which is a common form of fastening seen on wooden vessels. A hole would be drilled through the two pieces of wood that you wanted joined together. A wooden peg would be hammered in through this hole, with wedges or smaller pins hammered into each end to keep it in place. As the wood became wet, it would expand, forming a very tight and effective seal. Treenails were popular as they were easy to make, light weight, and saved on expensive metals that might otherwise be needed.

Unfortunately, material like this is very difficult to accurately date because this method of ship/boat construction has been so effective over a long period of time, which means these finds could have come from a vessel from any point in the last 500 years!





## Wessex Archaeology Specialists

Archaeology is a huge field. There is a lot of ‘the past,’ and it was filled with a huge range of people who faced the challenges their world presented them with in their own ways. That’s one of the things that makes archaeology so interesting. It also means that no one person can be an expert at everything, there’s just too much out there. So, we have a range of different specialists at Wessex, and we work as a team to get the benefit of everyone’s experience. Over the next few issues of *Dredged Up*, we’re going to chat with some of those specialists to see how they can contribute to the work being done with the Marine Aggregate Industry, as well as showing off some of the big wide world that is archaeology.



### Lorrain Higbee

#### What exactly is your specialism?

I’m a zooarchaeologist, and we study animal bones to record species, anatomical elements and a range of more detailed information, such as age at death and butchery marks.

#### How long have you been working in this field?

I’ve been working as a zooarchaeologist for over 30 years.

#### What is it that excites you about your chosen specialism?

As with all aspects of archaeology, no two days are the same, there’s always something interesting to find that adds to the bigger picture and sometimes challenges what we currently know about the past.

#### How can your specialism help us when trying to understand the past?

This provides information about human subsistence and behaviour, ranging from what people ate, how they farmed and what they traded to how they positioned themselves in society and their belief systems.

#### Moving into 2025, what challenges are faced by you and others working in your field?

One of the biggest challenges moving forward is the lack of training opportunities available to help establish the next generation of specialists.

### Discovered during operational monitoring:



220704\_258 – A mammoth tooth



277571\_090 – Fragment of deer antler