

A Year In Depth

The Maritime Archaeology Trust

2015



Maritime Archaeology Trust 2015

After a quarter of a century researching, recording and rescuing maritime archaeology, the Trust continues to lead pioneering projects. The First World War remains a large area of investigation and with thanks to the Heritage Lottery Fund we are in the process of bringing the forgotten vessels that were lost at sea to the attention of a global audience. We are doing this with displays, visual images and a strong internet presence. The dissemination of these results is based on in-depth fieldwork and archival study. This is a process that has always underpinned Trust activities but it has been challenging as the underwater cultural heritage is out of site and easily ignored. Our ongoing discoveries at Bouldnor Cliff exemplify these constraints. We have been working tenaciously on the site for almost twenty years, knowing that it holds unique material but having to watch it erode away as we struggle to find funds to work on it. To date we have data that shows it is key to our understanding of the first occupants of Great Britain with evidence that is unparalleled on land sites. This includes the earliest wheat in the UK, the largest collection of 8,000-year-old worked timber in the country and probably the oldest boat building site in the World. This evidence has come from a small fraction of the area under threat and it has found international acclaim, yet we struggle to find the funds needed to save what is being lost. However, international recognition is not limited to the archaeological work, it includes our innovative education and outreach programme. Our Maritime Bus is central to an EU 'Creative Europe' project with Spanish and French partners while we are benefiting from a high calibre secondment and partnership with the multi-nation, Marie-Curie funded ForSEADiscovery project. This project has British, Spanish, Portuguese, Dutch, Swedish and American partners and collaborators.

Our legacy is substantial and it has set benchmarks for others to follow. In 2015 this was acknowledged by the United Nations Education Science and Cultural Organisation (UNESCO) who certified the Trust as an accredited organisation within the Convention on the Protection of Underwater Cultural Heritage.

For the ongoing delivery of this great work I wish to record the Trust's thanks to all the members of staff for their vital work on research, income generation and dissemination. I would like to thank the Hampshire County Council, Historic England, the Heritage Lottery Fund, the National Oceanography Centre, Southampton City Council, the Isle of Wight Council, the European Regional Development Fund and the University of York, along with those other authorities, companies, organisations, Trusts and individuals who are listed in this report for their sponsorship and support over the past twelve months. Finally, I wish to thank members of the Management Committee, our Trustees, for their guidance and support.

Garry Momber CEO

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Maritime Archaeology Trust Officers

Garry Momber, BA (Hons), MSc, MCifA, FSUT. Director; Julie Satchell, BA (Hons), MA, MCifA. Head of Research

*Front Cover Image: Divers working to record the wreck of the Gallia in exceptional visibility, allowing the subsequent production of a 3D model of the site.
Inside cover: The broken hull of the Gallia when seen close-up and in detail (photo courtesy of Martin Davies).
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Forgotten Wrecks Fieldwork



The many and varied shipwrecks along the south coast include examples of almost every type of vessel involved in the war. They range from small fishing trawlers and cargo ships of various sizes, to large warships and the submarines that hunted them all. While many vessels were constructed of metal, there are still examples of wooden vessels being powered by a combination of engine and sails. These contrast with the large international cargo vessels, some of which had facilities to transport frozen goods across the globe.



The ships involved in the maritime war required land based infrastructure, including piers, jetties, docks, berths and harbours, which formed the vital link 'from ship to shore'. Other specific shore constructions such as sea plane stations and coastal defensive structures are also being studied.



Forgotten Wrecks fieldwork is working to gather important new data on a range of sites and engage volunteers with practical archaeology both above and below water. Archaeological techniques being used span from traditional tape measure and planning frame based surveys, through to intertidal recording with RTK-GPS and digital photography, which can be used to create amazingly detailed 3D models of sites.

Alongside survey, the observations of fieldworkers are important as they help in the recording of information such as the seabed type and levels around a site, the extent of preservation of remains and changes over time. This is providing key information that will be passed to the national and county based heritage databases to enhance the available record of First World War related sites.



Diving

Between 2014 and 2018, diving fieldwork will help bring to life the amazing historic resource that is hidden from view under the English Channel. On each visit to a wreck, Trust and volunteer divers take surveys, videos and photographs that will help make the sunken history more accessible to the wider public.

Wrecks offshore to the south, west and east of the Isle of Wight were visited during the 2015 dive season and varying conditions were encountered. June saw simply spectacular conditions with some 40m of underwater visibility. This allowed divers to take a mosaic of photographs that have been used to construct 3D models of the Admiralty drifter HMD *John Mitchell* and the Steam Ship *Gallia*. Investigations continued on the SS *War Knight*, producing a plan and further photogrammetry in slightly less spectacular visibility. Varying results were achieved on other First World War shipping casualties after the underwater conditions returned to their murky average later in the summer.

Several dive clubs are now getting involved, helping with the enormous task of recording as many First World War shipwrecks as possible along the south coast of England and we anticipate the recruitment of many more as the project accelerates. With two further dive seasons ahead, we hope to produce more resources to allow the public to learn about this almost forgotten, under-represented aspect of the First World War.

Intertidal and Shore Sites

In the past, very little detailed recording work has been undertaken on First World War sites along the south coast, and locations that contributed in some way to the war at sea are usually only afforded a brief mention in wider-ranging regional surveys. Accordingly, the project is currently focusing on collating background information on the number and types

of intertidal sites in the study area. These sites vary in type and purpose and include early wireless stations, seaplane bases, piers, jetties, dockyards, coastal defences and, of course, hulked vessels.

While data-gathering continues, fieldwork has concentrated on a pair of sites in the Solent area. The first of these is a pier that served Royal Victoria Hospital at Netley on Southampton Water. Although it was built in the 1860s and removed in the 1950s when the hospital was demolished, no previous archaeological work has been done to record the pier, which was a popular spot with recuperating soldiers admitted to the hospital during the war. The current project work will, therefore, establish the baseline survey record for the extant remains of the pier, which include the original pilings and a number of fixtures and fittings found in the intertidal area.

Another site under investigation is the hulk of a naval steam pinnace at Forton Lake, Gosport. This was first identified and recorded with a limited survey as part of a wider hulk survey undertaken by the Trust and the Nautical Archaeology Society in 2006-8. Revisiting the site provides useful monitoring information and an enhanced plan for the steam pinnace, which will hopefully aid its identification.

Gathering of initial data has also identified First World War sites that, whilst often known locally, have gone unrecognised in national historic databases. A good example is a pair of German destroyers known to have been hulked in Portsmouth Harbour in the 1920s. Background research shows that one was present at the Battle of Jutland, playing no small role in some of the major elements of that action. An initial site visit has confirmed the existence of significant vessel remains where these destroyers were hulked, so work in the future will record these remains in more detail and hopefully reveal their identities.

Images:
This page. Top: Returning to the Solent after a day's diving.
Middle: Divers survey the wreck of the Gallia.
Bottom: Volunteers Rob Hales and Nick Flather record the remains of a steam boiler at Forton Lake.
Facing page: Trust divers survey the boiler of the Admiralty drifter John Mitchell.

Forgotten Wrecks Research



In a project looking at events from 100 years ago, research is one of the most important factors in uncovering the history of the Forgotten Wrecks, and nowhere is the contribution of volunteers more vital.

An army of professional and amateur volunteer researchers across the UK are using a variety of sources of information to complete wreck research forms and accurately catalogue the history of the wrecks. As well as using internet sources, our volunteers travel to The National Archives at Kew to research Admiralty documents. In some cases, they are handling documents that haven't seen the light of day since they entered the archive.

Volunteer research brings these Forgotten Wrecks to life, allowing their stories to be told in public, in many cases for the first time. Research is not just limited to the wreck stories, volunteers have also contributed to the dissemination of the information gathered, dive planning and the identification and survey of shore sites.

Artefact recording in museums and private collections is also forging ahead thanks to our volunteers. Photogrammetry has proved a popular method of recording and is producing great results, with recorded artefacts ranging from shell cases to a ship's toilet!

Without volunteers, this volume and depth of research and recording would not be possible. Without them, the Forgotten Wrecks would remain forgotten.



Historical Research

A key aim of the Forgotten Wrecks project is to create a comprehensive database. Current records of First World War losses along the south coast are scattered across a series of datasets, none of which provide a complete picture of the war years. Some datasets only include vessels for which a known wreck exists whilst others are compiled from different original sources, many of which were incomplete in the first place. So many losses have been overlooked and forgotten.

Over the past year, a number of maritime and historical sources have been examined, compared and cleaned to produce a thorough list of ship losses dating from the First World War. This has produced a list of 1060 losses, some 700 of which have been identified as wrecks on the seabed. Approximately 30 of the losses actually fall after the armistice of the 11th November 1918; a large number of ships continued to be lost to mines after the fighting ended, and the database contains a number of vessels scuttled or lost under tow in the English Channel in the 1920s.

Identifying these wrecks is one task, but telling their story is quite another. To do this, a number of dedicated volunteers are using a variety of custom-made research forms to obtain as much information as possible from a range of sources. Some of the most important information is housed in The National Archives in Kew, London. Here, original Admiralty documents tell us a great deal about each vessel's last voyage and the circumstances of its loss. The internet also contains a wealth of information and is especially useful for learning more about the state of the wrecks today. This information is being fed into the project database, which will become the main means of storing and presenting this information as the project progresses.

By the end of the project there will be a comprehensive online portal containing all of the information gathered on

each wreck. This will enable anyone to find the location of any south coast loss from the First World War and learn about the vessel and its end.

Artefact Recording

Although the Forgotten Wrecks lie on the seabed and are inaccessible to the majority of the population, there are many elements of these vessels that can be found closer to home. The recovery of artefacts began, in some cases, almost immediately after a sinking and has continued over the last 100 years, especially with the rise in popularity of SCUBA equipment and the advent of Sports Diving.

Very few of the Forgotten Wrecks have any legal protection: only four benefit from the Protection of Military Remains Act, and so the recovery of artefacts from the vast majority is lawful. The Maritime Archaeology Trust will not recover any material from the wrecks during the project, but aims to catalogue as many artefacts that have found their way onto land as possible.

Today, many artefacts recovered from wrecks can be found in local and national museums, in diving or local history clubs' collections or in the possession of individuals. These artefacts range from large items such as machinery, ships' guns and deck equipment, all the way down to the smallest items of cargo, personal possessions such as jewellery and even banknotes.

The Trust and Forgotten Wrecks volunteers are working with the owners of these artefacts to record them. Details and images of artefacts will be incorporated into the online database, helping to 'virtually reunite' dispersed artefact collections with the vessels they came from. In some cases it is possible to produce 3D models of artefacts, thereby improving 'virtual access' to previously little-known objects that have been recovered.

Images:
This page. Top: Volunteers Danielle Newman and Katherine Crawford consult documents in The National Archives.
Middle: The National Archives in Kew, London.
Bottom: Volunteers Jon Pink, Rob Hales and Ian McCulloch record artefacts from the SS Shirala at Littlehampton Museum.
Facing page: A collection of artefacts recovered from the merchant ship SS Londonier, sunk in March 1918 by a German U-boat.

Forgotten Wrecks Communication and Dissemination



While many volunteers are involved with research, fieldwork and recording, still more are helping with the vital aspect of spreading the word about the existence and nature of the south coast's Forgotten Wrecks.

Building on decades of Trust public outreach experience, the project aims to reach as wide an audience as possible by using a variety of media, platforms and approaches.



Our new-look Discovery Bus and project event-tent has been travelling the south coast with a mobile exhibition that includes dive footage and artefacts from some of the wreck sites. Forgotten Wrecks on Tour has seen concurrent exhibitions, with more artefacts and information panels, in venues across five counties that include heritage and wildlife centres, coastal fortifications and a motorway service station. The Forgotten Wrecks website provides an online window onto the project, its findings and how people can get involved. This is augmented with regular social media updates via Twitter and Facebook.



The project is reaching other new audiences through the development of geocaches and Talking News articles and, of course, we have been working with schools and colleges through facilitated sessions and the creation of resources.

As we meet more and more people along the south coast, they continue to be amazed to discover the number and close proximity of wrecks from the Great War off our shores. In this way, we are helping to ensure the wrecks are no longer forgotten.



South Coast County Exhibitions

The temporary Forgotten Wrecks exhibitions along the south coast bring together the stories of the ships, their crew and the circumstances of their loss. As well as panels portraying the war at sea and details of local wrecks, a number of artefacts recovered from the seabed by divers in the past have been loaned to the Trust to add to the displays. These include ship fittings, personal possessions, shell cases and even postcards. Together with uniforms and replica medals, the collections provide a bright and informative element of the exhibition.

The exhibitions have seen great success during the first year of the project. They have been set up in venues in five counties and, in just two of those venues, were visited by more than 34,000 people between March and August 2015. To find out where the exhibition is being hosted, please visit the project website. If you know of a venue that may be interested in hosting it, please get in touch.

Schools

The Trust has continued to work closely with schools to provide special First World War themed sessions and educational resources. School children from Upper Shirley High, Southampton, learned how to undertake archive research and contributed to the history of three of their local wrecks. Great Oaks SEN School has also enjoyed a series of hands-on sessions, exploring objects from some of the wrecks through our artefact handling collections. A Teacher's Guide and resources connected to the Hollybrook War Memorial in Southampton will soon be available, with downloadable teaching resources and further school sessions to follow.

Events

The Trust's HLF Discovery Bus has been able to attend a whole host of events as a result of the Forgotten Wrecks project. Building on the work undertaken in 2014, more than 50

events were attended by the Trust in the first nine months of 2015, with many more arranged before the New Year. These include festivals, fairs and fetes, talks, academic events, school sessions, workshops and commemorations. Over 5,000 people have learnt about the project, from Plymouth to Shoreham and London.

In the years to come the net will be cast wider, along the entire south coast, with public events, talks, further exhibitions and volunteer events, so we can reach as many people as possible with information about the project and its findings.

Talking News

Volunteers are ensuring that the stories behind some of the Forgotten Wrecks are accessible to all. By reading the stories aloud and recording themselves, audio articles are created for blind and partially sighted people. These articles are available both locally, through Southampton Talking Newspaper, and nationally through the Talking News Federation. They are also available to all via the Forgotten Wrecks website, where they can be listened to online or downloaded to a mobile device.

Geocaches

Geocaching is an outdoor activity that is enjoyed by millions of people worldwide. As well as providing a challenge to those who use GPS devices to find them, the caches themselves can provide a way to share information about the cache's location and associated events.

The Forgotten Wrecks project has trialed two caches in Hampshire: Old Contemptibles and Lost at Sea. Both help share different aspects of the project's findings, with the latter being the result of working in partnership with the 6th New Forest North Scout group. The first geocache has already been found by more than 150 groups and individuals. As the project continues, more geocaches will be set up along the south coast.

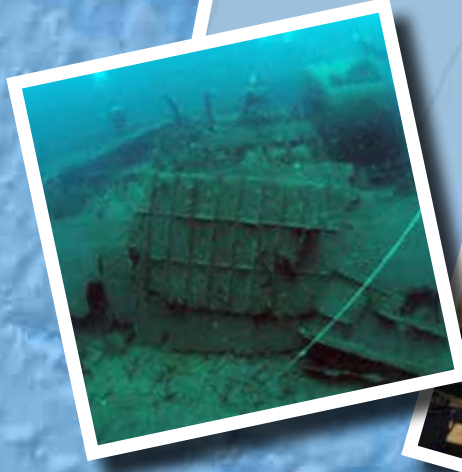
Images:
This page: Top: The Discovery Bus at Armed Forces Day in Plymouth.
Middle: The Hollybrook Memorial in Southampton
Bottom: Trust staff teach children at the New Forest Show.
Facing page: The Forgotten Wrecks Temporary Exhibition in Collumpton Services, on the M5 in Devon.

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 Stephen Fisher
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 Sara Rich (from December 2014)
 Lauren Tidbury (to March 2015)
 Helen Wallbridge
 Chris Whiley (to December 2014)
 Julian Whitewright

Sunken Secrets Staff

Sue Davies
 Charlie James
 Tony Rayner
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In the past 12 months, the Trust has engaged the public through:

- 70,000+ visitors to Forgotten Wrecks temporary exhibitions.*
- 4,017 visitors to Sunken Secrets at Fort Victoria, Isle of Wight.*
- 113 volunteer days of fieldwork at 14 different archaeological sites.*
- 45 Discovery Bus visits in England, France and Spain.*
- 20 dedicated maritime archaeological talks and engagement events in the UK*
- Attendance at maritime heritage events throughout Europe.*
- Active promotion through social media.*

● Archaeological Fieldwork
 ★ Education & Outreach
 ■ Representation

Sources: National Geographic, Esri, DeLorme, HERE, UNEP-WCMW, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, Increment P Corp.

Maritime Prehistory



Images:
This page. Top: The exposed mudflats of the western Solent at low tide cover a 6,000 year old landscape. Middle: An underwater 3D photographic image of eroding archaeological site at Bouldnor Cliff (see page 16 for more information). Bottom: Divers preparing to head into the Solent.
Facing page: The Mesolithic Woodworking Project team during experimental work at Exbury Gardens.

The last decade has seen the discovery of many submerged landscapes in the North Sea and the Channel. This has been complemented by an increasing amount of archaeological material being recovered from drowned landscapes. A site of particular note was unearthed during the development of Rotterdam Harbour between 2005 and 2014. Investigations revealed a Mesolithic occupation site in 22-17m of water. Excavation of over 300 cubic metres of sediment uncovered 46,067 ecofacts and artefacts. The remains provided information that greatly enhanced our understanding of early human mobility, resource exploitation and adaptability in the face of sea level rise, and environmental change.

Our escalating understanding of the archaeological potential within these extensive submerged landscapes led to the EU SPLASHCos project. This, in turn, provided a stepping stone for the SUBLAND group, chaired by MAT trustee Nic Flemming, and in 2014 the Land Beneath the Waves, EU Position Paper was produced. For the first time, research into the submerged prehistoric landscapes can be included as a strategic research objective in EU submerged cultural heritage applications.

Closer to home, the discoveries from Bouldnor Cliff in the western Solent (see opposite page) continue to exemplify the importance of submerged prehistoric landscapes. It has shown how these drowned lands can inform us about human dispersal, and technological advancement in the Late Mesolithic as North West Europe took shape. This was 8,000 years ago at the end of the Ice Age when the climate changed dramatically and Britain was becoming an island.



Mesolithic Woodworking Project

Experimental and prehistoric archaeology go hand in hand. For this project, a collaboration with Butser Ancient Farm, researchers are comparing the finds from Bouldnor Cliff to the wood chips produced when hollowing and splitting roundwood. Broadly, the project aims to help determine conversion processes and production techniques in relation to the Mesolithic worked timbers and debitage found at Bouldnor Cliff. It has also developed a knowledge of the effects of woodworking on the tools used, while raising public awareness of Britain's underwater prehistoric heritage and the risks to its integrity.

Public outreach was initiated through online and social media, and through exhibitions held at Butser Ancient Farm and Sunken Secrets, where the Discovery Bus provided a maritime context. The enthusiastic public response encouraged collaboration with Exbury Gardens in Hampshire. Again joined by the Discovery Bus, the woodworking team, University of Southampton students and MAT Friends were provided with an oak log which was to be converted into a small-scale logboat using Mesolithic tools and techniques – antler and bone chisels, mallets, adzes, wedges and heated flints all went to work splitting, hollowing and charring this log.

The worked wood assemblage from Bouldnor Cliff has long been hypothesized to represent the remains of a logboat construction site, and this event has demonstrated that constructing an oak logboat was a long-term undertaking and would have required a degree of sedentism. The project has been generously funded by the Mick Aston Archaeology Fund of the Council for British Archaeology. Thanks must also go to Ryan Watts of Butser Ancient Farm and Nic de Rothschild of Exbury Gardens for facilitating the workshops. For more information follow the project on Facebook and Twitter (@Mesolithic_Wood) or visit the project website at: www.mesolithicwoodworking.blogspot.co.uk

Bouldnor Cliff

The site of Bouldnor Cliff lies 11m below the Solent where discoveries are pointing to high levels of sophistication and links with the continent. Although we have only had resources to investigate a small proportion of the site systematically, we have recovered hundreds of flints flakes including a carefully formed cutting tip of a bifacially prepared flint axe blade that was skilfully crafted to a level usually associated with the Neolithic period: an epoch that did not begin in the UK for another 2,000 years. The same is true of the organic material recovered which includes over 50 pieces of worked wood. These contain enigmatic workings and cuts of which there are no comparisons in the UK. They are now forming a baseline collection. The most significant timbers were fashioned by tangential splitting that allows the production of planks. The technique used to form large oak planks in this way is not recorded in Britain for another 2,000 years. One particular piece that was taken from a tree estimated to be almost 2 metres wide, along with the associated artefacts suggests this is the site where a log boat was built or repaired. If this is the case, it would make it the oldest boat building site in the world. In addition, in February 2015 the results of pioneering analysis of Bouldnor Cliff sedimentary ancient DNA (sedaDNA) was published in Science to reveal *Canis* (either dog or wolf), Bovide *Bos* (believed to be Auroch), deer, members of the grouse family, rodents and wheat (*einkorn*). The find demonstrates there was farmed wheat at a UK site, again, 2,000 years before agriculture reached Britain.

Studies over the last decade have shown a loss of 4m of seabed in the most archaeologically sensitive area. There is a desperate need to save material before more is lost but resources are not available. Meanwhile, the Trust has been working with Exbury Gardens to raise the profile of the work by using the data from Bouldnor Cliff to construct a logboat. The task is proving challenging but the public loved to join in.

Shipwreck & Coastal Archaeology



Over the last year, the Trust has continued its work on a range of fascinating sites both underwater and in the intertidal zone. In addition to practical fieldwork investigations, desk based research has included specialist analysis of site archives in preparation for publication. It is particularly exciting for the Trust that the publication of years of work on the shipwrecks within Alum Bay is now available (page 16). Shipwreck archives have also featured prominently within a strategic review of the backlog of maritime archaeological archives from England.

The Trust has identified a number of current risks to maritime heritage sites and has been working to understand the potential impacts of these threats. In the past year, in response to seabed movements caused by severe storms in winter 2013/14, monitoring measurements have been taken around a number of shipwreck sites, while work in the intertidal zone has sought to understand the impacts of bait digging on archaeological remains. Gaining real data to measure the impact of threats helps to develop appropriate management approaches. While threat based projects have been responding to urgent situations, an example of a research focused project to answer outstanding questions has been developed on the Yarmouth Roads protected historic wreck site.

It is a continuing strength of the Trust to be able to work on the maritime archaeological resource in a range of contexts. The ability to respond pro-actively to emerging situations demonstrates the importance of having a team 'on the ground', while the accumulated knowledge and experience can be deployed to enhance research based investigations.



Management, Monitoring & Strategy

The past year has witnessed projects which have gathered new data, utilised existing data and enabled heritage data to be used within its wider context. A few projects have been highlighted below with further information available on the Trust's website.

The remains of the lower hull of HMS *Impregnable* lie in relatively shallow water in Hayling Bay. The ship ran aground in 1799 and was heavily salvaged at the time, removing much of the upper works. The cast iron ballast blocks in the very depths of the hold ensured the timbers below and their associated fixtures and fittings were preserved. The site has been surveyed by the Trust and is regularly monitored to review whether the site is becoming more exposed, covered or staying relatively stable. Diving in 2015 demonstrated that the storms of 2013/14 had lowered the sediment levels around the site with some previously unseen timbers being exposed.

Archaeology, Art and Coastal Heritage: tools to support coastal management and climate change planning across the regional sea (or Arch-Manche) drew to a close this year. With partners in France, Belgium and the Netherlands, data from across the Channel was analysed and measured to determine the scale and pace of long term coastal change. The project outputs, including a guide aimed at coastal managers, a technical report and an innovative model of change over time in Langstone Harbour are available from www.archmanche-geoportal.eu

The Trust is working to capitalise on data from past investigations which have been undertaken but, for a range of reasons, have not progressed through to full publication and wider public dissemination. The Maritime Archaeological Archives Backlog project has quantified the scale of inaccessible material, while work on the archive of the *Stirling Castle*, a designated historic wreck site lying on the Goodwin Sands, off Kent, since its wrecking in 1703, has now reached analysis stage.

ForSEAdiscovery: Forest Resources for Iberian Empires in the Age of Discovery

What impact did the European Age of Discovery have on forests in Iberia? During the 16th – 18th centuries, what characterised an 'Iberian' ship? How are ancient forests and individual trees represented in the shipbuilding records of history and archaeology? How do wood science, nautical archaeology, and historical narratives come together to address these questions?

These are a few of the primary research questions raised in ForSEAdiscovery, an EU Marie-Curie ITN project that is engaging the sciences – wood anatomy, dendrochronology, dendrochemistry, DNA analyses and spectrometry – with the humanities – history and archival research, archaeology, cartography. One of the project's twelve international research fellows is based at the Trust, a full project partner, and others have spent secondments here learning about interdisciplinary database management and GIS techniques and applications.

The research being conducted by the Trust's ForSEAdiscovery fellow is focused on the Yarmouth Roads protected shipwreck in the West Solent. Previous excavations of the ship's hull and analyses of its cargo have suggested that the vessel may have been Iberian, and there is a tantalising archival reference to the *Santa Lucia*, a Spanish merchant vessel comparable that at Yarmouth Roads, that wrecked in the Solent in 1567 while carrying wool to Flanders.

The Trust diving team has sampled three bow timbers from the Yarmouth Roads wreck, and these are currently undergoing an array of wood characterisation studies by other project members based at laboratories around Europe. These analyses could suggest a provenance for the ship's structural timbers, which in turn, could help identify this mystery wreck of international importance. For more information, visit the fellows' action-packed blog at www.forseadiscovery.wordpress.com.

Images:
This page. Top: MAT volunteer Andy Williams inspects an exposed plank during work on the Yarmouth Roads site. Photo courtesy of Roland Brookes. Middle: Intertidal remains at Chidham visited as part of the project to monitor bait-digging. Bottom: Monitoring inspection on the site of HMS *Impregnable* in the Eastern Solent. Photo courtesy of Martin Davies.
Facing page: Recovering timber samples for dendrochronological analysis from the Yarmouth Roads site as part of the ForSEA Discovery project.

Cooperation & Outreach



Images:
This page. Top: Children from St Mary's primary school, Southampton, visiting the Maritime Bus. Middle: The Maritime Bus on tour in France as part of the CCC project. Bottom: Delegates gather at the Ocean Literacy Workshop in Galway, including Amanda Bowens (front-row, middle).
Facing page: The newly re-branded Maritime Bus is as popular as ever at our outreach events, this time at Lepe Country Park.

A key aim of the Trust is to 'promote public awareness, enjoyment, education and participation in the maritime archaeological heritage', this has been achieved over the past year through a combination of our long standing resources and new project initiatives.

The ever-popular Maritime Discovery Bus continues to be a vital mechanism for connecting with a wide variety of audiences. The 'new look' bus has toured further across the UK and Europe than ever before, while plans are now being developed, in conjunction with the University of Cyprus and the Maritime Archaeology Stewardship Trust, to take the bus on a tour of Cyprus in 2016.

There is huge potential for expanding access to maritime archaeology, which often crosses modern borders and continents, through cooperation projects incorporating the skills and experience of partners in different countries. Details of one such project, the CCCs, are given on the following page.

Whether through the Sunken Secrets exhibition on the Isle of Wight or by attending events, delivering activities, undertaking survey and recording or working with schools, opportunities for involvement have been many and varied.

Meanwhile, the support of the 'Friends of the MAT' continues. Some members are very active volunteers in the Solent region and further afield, while others prefer to read about activities via a newsletter. If you would like to join the Friends of the MAT you can find out more on our website:

www.maritimearchaeologytrust.org/friends



Common Cultural Connections

Common Cultural Connections (CCC's) is a Creative Europe funded project which aims to improve knowledge and understanding of the shared cultural heritage between the United Kingdom, France and Spain. Through an innovative mobile exhibition, people are encouraged to become more involved with their cultural heritage.

The CCC project is reaching out beyond the traditional audiences of museums and academics to provide greater opportunities for people of all ages, abilities and background to become engaged. The exhibit focuses on prehistory, in particular archaeological evidence from across the partner countries which demonstrates links established in past millennia.

The CCC's partners have developed a mobile exhibition in three languages which has been delivered through the Trust's Discovery Bus. The Discovery Bus has visited schools, colleges, universities, community centres, local shows, open days and events in UK, France and Spain during the months of June, July, August, September and October 2015.

The project is developing links between schools and groups in the partner countries and encouraging them to create a network to research and share information about their common heritage. The project will provide a range of teaching materials and resources which can be used beyond the life of the project.

Maritime Discovery Bus Makeover

Our popular Maritime Bus, a mobile exhibition, research and resource base, has had a makeover and has been showing off its new livery in France and Spain, as well as the UK. The bus's new look reflects the Trust's diverse work under water, on the foreshore and with public outreach. We are grateful to Trust volunteer diver Roland Brooks for his underwater photo which has been used to great effect. Keep an eye out on the roads and at events for the new-look Discovery Bus.

Education

In addition to work in schools through the Forgotten Wrecks and the CCC projects, we have continued to work within education at both ends of the age spectrum. At St Mary's Primary in Southampton, ninety Year 3 (age 7-8) pupils enjoyed a session focusing on Southampton's local maritime history. Meanwhile, at the Centre for Maritime Archaeology, University of Southampton, we delivered our unit for the Masters students on the relevance and importance to maritime heritage of reaching young and general public audiences and showed how the bus helps to achieve this.

Sunken Secrets

The 2015 season at Sunken Secrets has brought many changes, both in terms of staff and exhibitions. The temporary First World War and the extended Bouldnor Cliff exhibitions have both been very popular with our visitors. For our younger audience we have installed a number of fun activities and reconstructed a First World War air-raid shelter fitted with sounds of real bomber planes. Also new for this year is the combined ticket which allows people to visit Fort Victoria's Planetarium, Model Railway, Aquarium and Sunken Secrets all on one ticket. The combined ticket has been very well received by our visitors and has strengthened the image of Sunken Secrets as one of Fort Victoria's popular holiday destinations.

Ocean Literacy Workshop

Early in 2015, the Trust was invited to form part of the evaluation panel for the Galway Marine Institute's Explorers Programme. This led to an invitation to participate in the Transatlantic Ocean Literacy workshop in Portugal, organised as part of the Horizon 2020 BG-14 Atlantic Ocean Research Alliance Coordination and Support Action (AORAC-SA) project. Through the *Our shared heritage, our shared future: ocean and culture* working group, we were able to highlight the importance and relevance of heritage in an Ocean Literacy context.

Representation, Publicity and Publication

The Trust's portfolio is broad, traversing research, dissemination and outreach. It is multidisciplinary and bridges numerous sectors from the public to the academic to the curatorial. The Forgotten Wrecks project exemplifies many areas where decades of experience are used to push the boundaries of maritime archaeological investigation and dissemination. This pioneering approach is delivered both nationally and internationally. In the UK, the Trust continues to champion this ethos at a number of committees including the Joint Nautical Archaeology Policy Committee, Scientific Diving Supervisory Committee, Solent Forum, Standing Conference on Problems Associated with the Coastline (SCOPAC), the Society of Underwater Technology, the Citizen Special Advisory Network, Southampton Heritage Federation, Southampton Heritage and Arts People.

Our contribution to strategic approaches for the management of cultural heritage includes the production of written resources including reviews of archaeological archives and protocols for the management of significant sites, with the support of Historic England, to a review of bait digging around heritage sites on behalf of Chichester Harbour. At a broader European scale, the Arch-Manche guidance has provided a tool for coastal managers to identify long term patterns of coastal change as well as drawing attention to the submerged cultural heritage. Of particular importance for understanding coastal change are drowned landscapes of which Bouldnor Cliff is a key site. It has provided sediment for analysis of maritime, sedimentary ancient DNA and revealed evidence of aurochs, dog and wheat. This is a global first and has shown that wheat reached the UK 2,000 years earlier than previously thought. The contextualising of the Alum Bay shipwreck has been another

academic success. The publication of the Monograph has set a benchmark for the archaeological and historical identification of early nineteenth century vessels. These and other academic publications provide baseline data which are drawn on to talk with authority when reaching out to the broader public.

The Trust disseminates information about submerged cultural heritage in many ways. In addition to dozens of presentations to groups, societies and conferences, we engage with a broad spectrum of society through the Maritime Discovery Bus and our Sunken Secrets exhibition at Fort Victoria. We have visited schools in the UK, France and Spain providing direct input with our educational resource packs, and we regularly host schools at Sunken Secrets. We have established a wide network of Friends and followers through social media, and most recently with a suite of exciting 3D images. 3D digital capabilities are influencing the way photography is applied on archaeological sites and objects. Using data gathered from fieldwork and volunteers' artefact recordings, the Trust have created a catalogue of 3D models. Artefacts recorded in this way range in scale from a smoking pipe to entire wrecks, allowing these previously unseen items and sites on the seabed to be more fully experienced by anyone online. See the models at: <https://sketchfab.com/maritimearchaeologytrust>

This outreach work and our schools programme is exemplified by the Forgotten Wrecks project and the CCC project. Different elements are also supported by the Honor Frost Foundation, Charitable Trusts, Hampshire County Council Activity Grant, the Institute of Physics and the New Forest National Park Authority. Find out more at: www.maritimearchaeologytrust.org/outreach

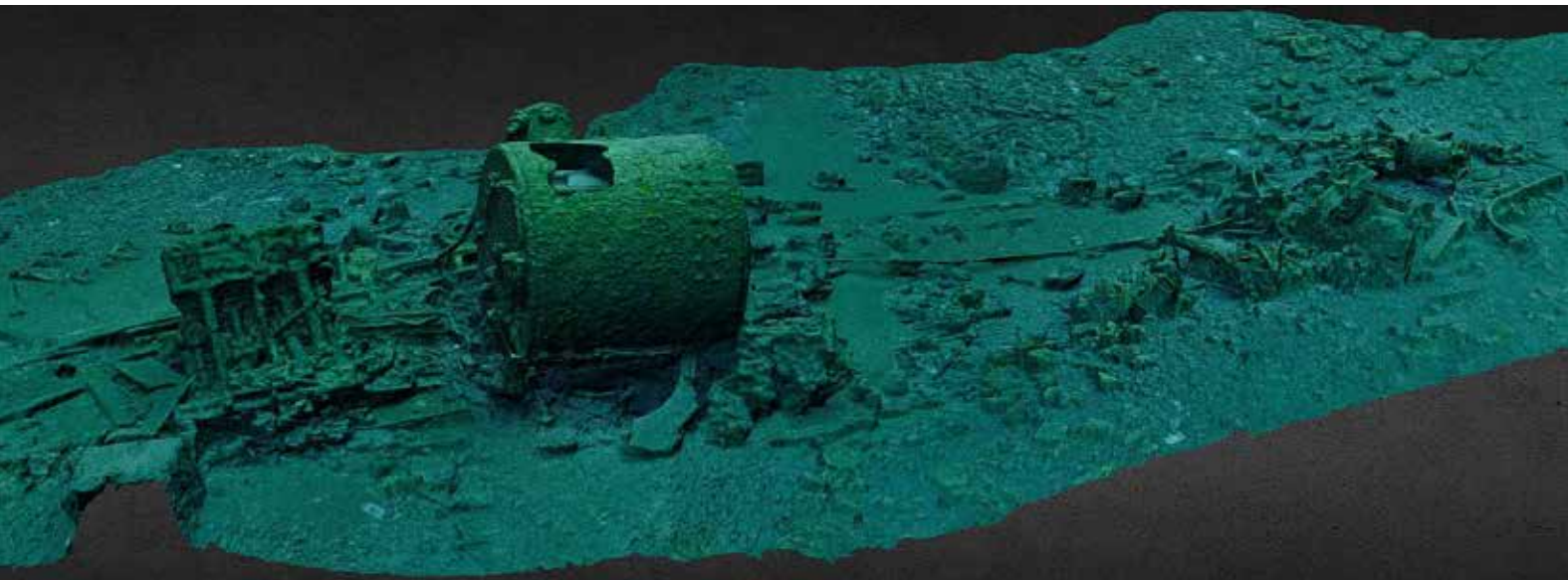


Image: A 3D photogrammetric model of the wreck of the Admiralty drifter John Mitchell, lying in 42m of water, SW of the Isle of Wight. The model uses 684 individual photographs from which a point-cloud of 81.5 million individual points is generated.



National Oceanography Centre, Southampton

UNIVERSITY OF SOUTHAMPTON AND
NATURAL ENVIRONMENT RESEARCH COUNCIL



Historic England



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- Royal Navy
- Southampton Area Talking Echo
- Southampton City Council
- SeaCity Museum
- Talking News Federation
- TAL Scuba
- Teledyne-Reson
- University of Southampton
- Valerie Fenwick
- Wight Spirit

Maritime Archaeology Trust

The Maritime Archaeology Trust will promote interest, research and knowledge of maritime archaeology and heritage.

The Maritime Archaeology Trust Policy Statement:

- Carry out maritime archaeological surveys, investigations and research in accordance with professional and museum codes of conduct and practice, the Institute for Archaeologists and the UNESCO Convention on the Protection of Underwater Cultural Heritage.
- Promote archaeological awareness and competence.
- Promote public awareness, enjoyment, education and participation in the maritime archaeological heritage.
- Support the publication of the results of maritime archaeological investigations, surveys and research.
- Liaise with other regional, national and international organisations involved in maritime archaeology and related disciplines.
- Provide maritime archaeological services to heritage agencies, local authorities and a wide range of marine operators.
- Support regional, national and international initiatives for improvements to the legislation regarding the preservation and management of the maritime archaeological heritage.
- Ensure that maritime archaeology plays an important role in coastal planning, management and policies.

The Maritime Archaeology Trust

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Images (top to bottom): Diving on the Gallia as part of the Forgotten Wrecks project, disseminating maritime archaeology to the next generation, the extensive intertidal zone of the western Solent, the Discovery Bus visiting the SeaCity Museum in Southampton.

