

# A Year In Depth

The Maritime Archaeology Trust  
2016



25<sup>years</sup> of the  
Maritime  
Archaeology  
Trust

# Maritime Archaeology Trust 2016

In 1991, when the Hampshire and Wight Trust for Maritime Archaeology was established with funding from the Hampshire and Isle of Wight County Councils, it was a single-person operation and the world was a very different place. The internet was embryonic and unknown to most: no social media, Google Earth, smart phones or even digital cameras.

In the ensuing 25 years the world has changed enormously and so has the Trust. Its geographical reach and relevance has spread to the extent that in 2012 it was renamed the Maritime Archaeology Trust (MAT). It has been extremely successful in adapting and growing through ever changing social, political, financial and economical climates, embracing new technologies and incorporating them into all areas of its work.

Now employing 18 full and part-time staff, the MAT has provided opportunities for involvement and training for hundreds of volunteers and students under water, on the foreshore, in archives, museums, schools and in public outreach. This is exemplified by our largest current project, the Forgotten Wrecks of the First World War, which incorporates and benefits from the knowledge and experience of everybody who has been involved with the Trust.

This year's Annual Report comes at a time when we are looking to our origins, recognising our achievements and how far we have come while looking to the future. As always, funding to sustain our work is a great challenge, but our achievements have built a solid foundation upon which to demonstrate the value of our work. We have revealed many new archaeological discoveries and have worked tirelessly to bring the results to the nation. But we have also identified threats to this irreplaceable resource where unique sites like the 8,000 year old boat-building site at Bouldnor are disappearing before our eyes and need serious attention if they are to be saved. We never forget that the past belongs to us all and we need to protect it for future generations. Unfortunately, this is becoming increasingly difficult as the Trust has been a substantial beneficiary of EU funding for many years. The Trustees are mindful of the ongoing challenges which we will face in the future as a result of the Brexit vote.

Our work incorporates fieldwork, research, documentation, dissemination and, of course, public involvement. We continue to embody the ethos upon which we were founded and we will maintain these priorities beyond our first quarter-century.

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 Heritage Lottery Fund, Historic England, the National Oceanography Centre, the EU Creative Europe programme, Hampshire County Council, Southampton City Council, the Isle of Wight Council 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.

Michael J Woodhall FRICS

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Mr F. Green, BA, MSc, MPhil, MCIfA, IHBC, New Forest National Park Authority; Philip Shears QC (co-opted July 2016)

## Maritime Archaeology Trust Officers

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*Front Cover Image: Volunteer diver Andy Williams records a site plan on the wreck of HMS Boxer, off the Isle of Wight.*

*Inside cover: The remains of German destroyer V82, recently identified by the Trust in Portsmouth Harbour.*

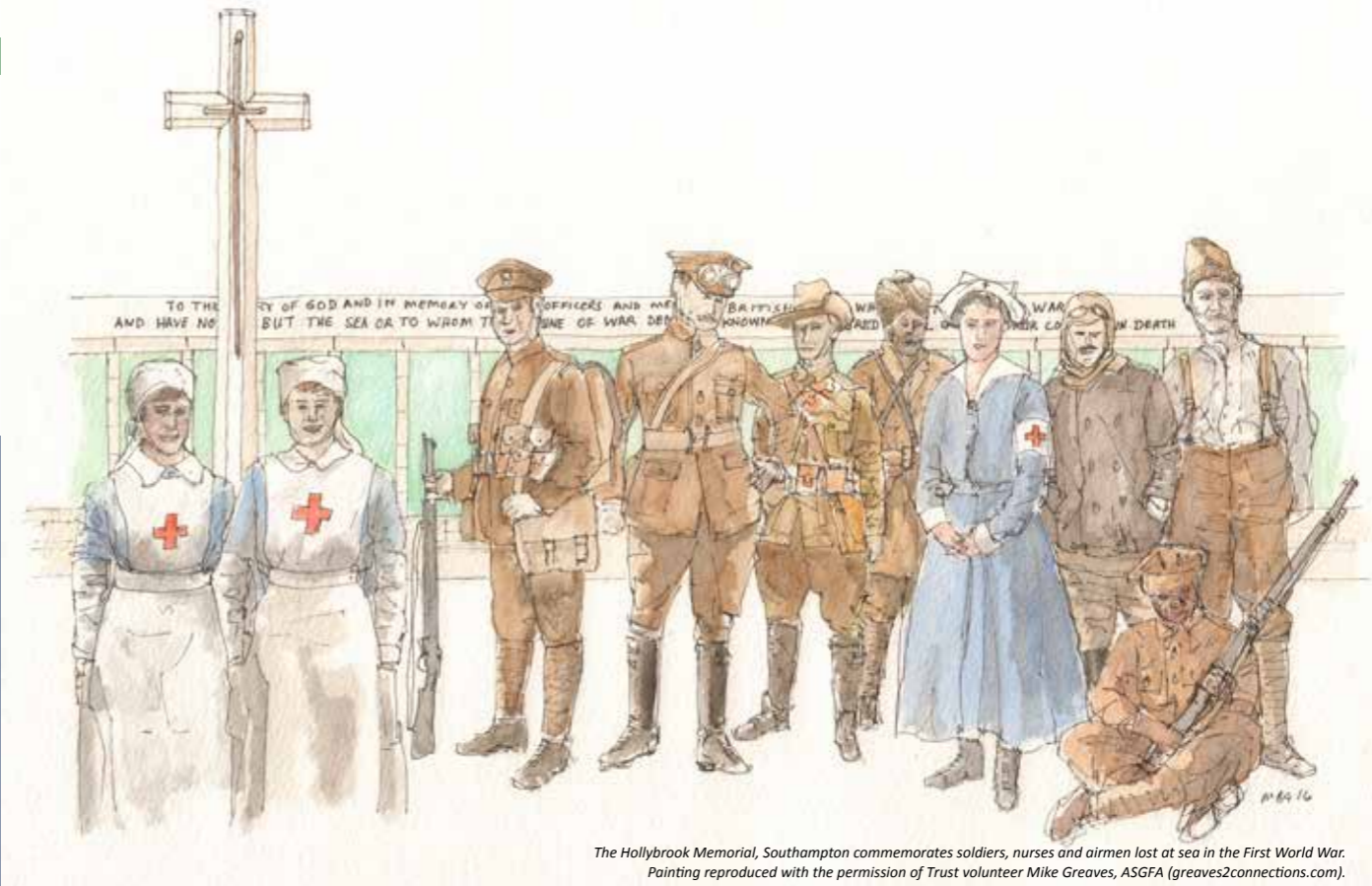
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# Respecting: Commemorations and Anniversaries

The world's oceans, lakes and rivers hide and sometimes protect what has often been called the largest museum in the world: physical remains of human activity since we first walked the Earth. Underwater cultural heritage provides evidence of our enduring dependence on waterways for food, transportation, communication, trade and conflict. What survives beneath the water, are tangible remains that provide a very real and present link with past events and practices. They can amaze, inform and educate and, in the case of conflict heritage, can provide a focus for commemoration and remembrance.

For 25 years the Trust, recognising underwater cultural heritage's ability to capture public interest while revealing and demonstrating unique insights into our collective past, has worked hard to collect information from sites and make it available to the broadest audiences possible. In so doing it has enhanced heritage records, supported calls for protection, published for academic and popular audiences and taken maritime heritage out to schools, groups and events.

Our 25th anniversary coincides with the centenary commemorations of the First World War, when the whole world is remembering and understanding events that shaped society today. The global centenary provides a prime example of how cultural heritage under water, easily overlooked due to often being out of sight, survives as an unappreciated memorial to those who made the ultimate sacrifice at a time of conflict. As well as raising the profile of an under-recognised aspect of the First World War and its surviving heritage, some of these sites are revealing surprising truths about our past.



The Hollybrook Memorial, Southampton commemorates soldiers, nurses and airmen lost at sea in the First World War. Painting reproduced with the permission of Trust volunteer Mike Greaves, ASGFA (greaves2connections.com).

## MAT's 25th Year

As the MAT reaches its quarter century milestone it is a time to celebrate, to reflect on the past 25 years and to look forward to the future. Many of the reasons the MAT was set up as the HWTMA back in 1991 are still as pertinent today as they were then. In fact with the development in prospection techniques and greater understanding of the potential of the maritime archaeological resource, we are more needed than ever.

There have been some fundamental changes in the past 25 years. The practice of recording archaeology has been revolutionised through digital recording and photography. Software capabilities have made experiencing the underwater world more 'real' than ever imagined. The digital world has impacted all of the working of the MAT from admin, to publicity through social media to drawing up results.

The MAT has many achievements to be proud of. We have:

- Discovered and recorded sites of international importance.
- Grown from not only championing the maritime heritage of the Solent region, but of the UK and now having been accredited to the Governing Bodies of the 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage, our international work has also been recognised.
- Developed approaches to education and outreach that have brought the underwater world to hundreds of thousands.
- Been granted various awards, including a Europa Nostra and British Archaeological Award.
- Developed strong partnerships nationally and internationally.
- Involved thousands of volunteers and trainees in our work.

We are planning a number of events to mark our 25th birthday and a fundraising campaign to help ensure that the MAT is secure for the future. With the massive technological developments seen in the last 25 years we look forward to seeing what will be possible when the MAT reaches its half century.....

## Forgotten Wrecks & First World War Centenary

This year we have passed the half way point of our Heritage Lottery funded Forgotten Wrecks of the First World War project. Coinciding with the centenary of the Great War and working with hundreds of volunteers up and down the country, this project is raising the profile of maritime heritage from the war that lies along and off the UK's south coast.

Under water, in archives, dive clubs and museums, in rivers and estuaries, ports and harbours, in MAT offices and households across the country, volunteers and staff have been gathering information from and about the forgotten wrecks.

This information is being shared online and via printed materials, as well as through face-to-face outreach at public events and in schools. Exhibitions in five south coast counties, have been hosted in venues as diverse as a library, church, lighthouse, motorway service station, museums, heritage centres, guildhalls, castles and zoos! Comprising artefacts and information panels, these displays have enabled the Trust to extend its reach amongst south coast audiences with more than 100,000 people having visited them to date.

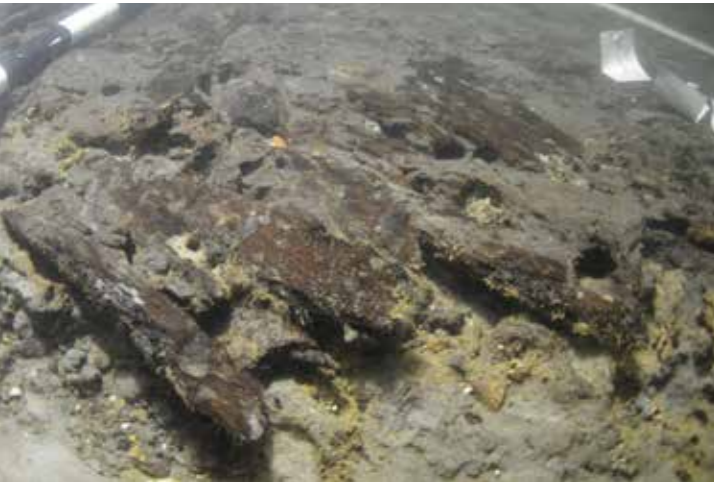
While the project is researching, recording and presenting maritime heritage: the physical remains associated with the south coast's maritime First World War, at the heart of the project is a desire to remember and commemorate the people associated with the forgotten wrecks. To this end, we are working with the Imperial War Museum's Lives of the First World War project, ensuring that our findings are publicly accessible now and into the future.

The invaluable contribution that volunteers have made to the Trust's work over the past 25 years cannot be overstated. The Forgotten Wrecks project has given us the opportunity to celebrate this with a publication outlining the many and varied tasks volunteers have been involved with to date.



Images:  
Top: Diver above the stern of HMT Arfon, mined off Devon in 1917.  
Middle: Unknown Heroes: Saving the patients on board the hospital ship HMHS Anglia. Reproduced with the permission of Trust volunteer Mike Greaves, ASGFA (greaves2connections.com).  
Bottom: Flying the flag: The Trust commemorates Merchant Navy Day at Weymouth Waterfest.

# Rescuing: Saving, Conserving and Publishing Archaeology at Risk



Images:  
Top: A timber floor section at Bouldnor Cliff, before recovery.  
Middle: Trust director Garry Momber examines an eroding Mesolithic structure at Bouldnor Cliff.  
Bottom: A recovered timber. The small vertical marks indicate tangential splitting, a form of woodwork not previously associated with the Mesolithic period.

The ability of the MAT to react quickly when there are reports by members of the public of new discoveries or sites under threat from natural processes, places it on the front line in terms of helping rescue marine and coastal archaeology. Putting our specialist skills into action enables us to record the sites and, where necessary, recover artefacts and associated ecofacts at risk. Fieldwork is just the beginning of the journey with research, analysis, conservation and publication all required to complete the archaeological process. MAT has always embedded dissemination of information through outreach to a wide range of audiences at all stages of this process.

The past year has seen significant work in all areas of 'rescuing', just a few examples are included here. At Bouldnor Cliff the relentless erosion has exposed further areas of worked timber and evidence of Mesolithic occupation, diving fieldwork (detailed opposite) has deployed various recording techniques with further recoveries of material at risk.

Academic and public dissemination of our work has always been a priority and last year we were fortunate to work with the Southampton University Student Consultancy programme. The students helped raise awareness of our work through an outreach event at the Maritimo Lounge on 'Giving Tuesday' and via a dedicated web page. Projects which are at or near publication stage include the analysis of the archive from the protected wreck of the *Stirling Castle* and the culmination of almost a decade of research on the maritime archaeological archive holdings across the UK. Further papers in a range of journals and conference volumes continue to showcase the work of the MAT and promote our discoveries and research to an academic audience.



Bouldnor Cliff as it may have appeared in the Mesolithic period. Reproduced with the permission of Trust volunteer Mike Greaves, ASGFA (greaves2connections.com).

## Recovering and Reconstructing Prehistoric Settlements

The submerged Mesolithic landscape at Bouldnor Cliff continues to reveal more 8,000 year old archaeological artefacts and structures as it erodes. A rescue mission by the Trust in June recovered another 24 pieces of worked timber from the palaeo-valley that now lies 11m below the Solent. This adds to the collection which contains over 500 worked flints or flakes, bone, the oldest piece of prepared string from the UK, DNA from wheat, auroch, dog, wildfowl and rodents, and probably the oldest boat building site in the world.

The quantity and extent of worked wood makes it the largest collection of associated Late Mesolithic timber in the UK. The latest find is an arrangement of trimmed and split timbers that could be a platform, walkway or collapsed structure. The waterlogged anaerobic conditions have created an excellent environment for preservation where organic material remains stable unless re-exposed to oxygenated water. However, the sites have been discovered because the seabed is retreating. Monitoring over a ten year period has recorded lateral erosion of up to 4 metres in the most affected parts of the archaeological site.

In 2016, a newly exposed area of worked timber eroding from the archaeological horizon warranted a new rescue mission. Most of the timber was tangentially split and orientated in a south easterly direction within a thin palaeo-peat deposit. Some of the wood working techniques seen in this Mesolithic material have previously only been recorded from the Neolithic period onwards, suggesting people were more technologically advanced at an earlier date. A concerted effort is now needed to rescue threatened artefacts, stabilise the site and analyse the material from this unique assemblage. The aim is to better understand human adaptations and dispersal prior to the final severance of the UK from mainland Europe by the North Sea. The site at Bouldnor Cliff has a proven

potential to address this gap in our understanding and inform many research questions that pertain to the Mesolithic as presented in the *Maritime Archaeological Research Agenda for England*. They include coastal exploitation, the use of watercraft, the development of models for Mesolithic subsistence patterns and insights into the Meso-Neolithic transition. These are also in accordance with archaeological research questions presented in the European Marine Board Position paper: *Land Beneath the Waves*.

Despite constituting a pivotal point in human social history, the transition from the hunter gathering Mesolithic period to Neolithic farmers is poorly understood. This is primarily because very little evidence has survived on land and because the frontier lands during this period are now under water. The valley that once sat in the western Solent was occupied just a few hundred years before Britain was separated from mainland Europe by the rising sea level. It is the nation's only known submerged Mesolithic site and contains a wealth of organic material that is casting light on a culture that followed a different path from the rest of Europe once the English Channel was formed.

The recording process included photogrammetry that was successfully used to create a 3D mosaic, the results of which are currently being processed. The task was combined with a training course for researchers from the University of Alexandria, Egypt and with the help of fellows working on the ForSEAdiscovery project (page 11). This continues our tradition of giving students from across the globe the chance to gain experience on palaeo-landscapes.

Analysis of the discoveries has provided evidence of advanced technology, long-distance trade, boat building, ecological adaptation and the earliest example of wheat discovered in the UK. The Trust is working for the nation to save this site but more support is needed if we are not to see it washed away.

# Recording: Creating a Lasting Record for Future Generations



Whether a shipwreck deep in the sea, a hulk repeatedly exposed at low water, a coastal harbour or an object in a museum or exhibition, the basic principles for recording remain the same even though the environment is different.

The most appropriate techniques are always used to gain a detailed representation of a site or object. This includes photographing both overall sites and specific details, undertaking accurate tape measure surveys, drawing, drawing annotated sketches or creating detailed scaled plans.



Volunteers have been involved with all aspects of recording. On some sites they work alongside the MAT team, learning the principles of recording at the same time, while on others keen dive clubs have been visiting wrecks and feeding their results back to us.



Over the past year these approaches have been applied to sites and artefacts in the UK and further afield. While the examples opposite from the Forgotten Wrecks project exemplify some of the techniques used, other project work means a diverse range of sites have been recorded. Through the Common Cultural Connections project, working with partners in France and Spain, we have recorded prehistoric rock art, Neolithic passage graves, dolmens and menhirs.

The records created form an important archive of data which can be used to interpret a site and present it to a range of audiences. Ensuring that data is available for others in the future is essential so that it can be re-examined and re-interpreted as knowledge develops.



Recording the remains of V82, a First World War German destroyer in Portsmouth Harbour. Image taken by Trust volunteer Katerina Velentza.

## Diving

2016 diving for the Forgotten Wrecks project has focused on the west of the project study area. With the help of divers and dive groups the MAT is collecting data to bring these wrecks to the public's attention.

Based out of Dartmouth in June, a mixture of conditions were encountered above and below the water, requiring the usual flexibility and adaptation. When a heavy swell prevented diving, the day was instead spent flying an Unmanned Aerial Vehicle (drone) from the dive boat, recording the remains of Hallsands fishing village, which finally lost its fight against coastal erosion in 1917. Beneath the waves the *Benton Castle*, *Newholm* and the *SS Maine* were targeted for survey and photography. Poor visibility hampered the planned photogrammetry tasks, but despite the conditions, the team managed to record distinct parts of the wrecks.

During July work on the east side of the Isle of Wight included survey of *HMS Boxer*, *SS Kurland*, *UB-21* and a dive aimed at confirming the position and identity of *SS Pandion*. Again, weather and visibility were not on our side, but photography and survey were achieved at all sites. A digital 3D model of *HMS Boxer*, the oldest serving destroyer in the Royal Navy at the time of sinking, is currently being developed.

Diving out of Swanage on the newly protected wreck of the fishing trawler *Arfon* is enabling the on-going development of a 3D model, which will complement site recording undertaken to date by Bryan and Martin Jones of Swanage Boat Charters.

## Intertidal

Coastal and intertidal sites visited as part of the Forgotten Wrecks project have included wireless stations in Devon and Cornwall, hulks in Hampshire and Devon, port and shipbuilding sites in Sussex, and German destroyers in Portsmouth Harbour.

This year, a concentrated effort in the south west revealed a collection of vernacular craft built before the First World War and eventually abandoned in the coves and creeks of the River Dart. These included *Winifred*, a 38 ton wooden ketch built in Falmouth in 1897 and several timber-built fishing trawlers, including *Fiery Cross*, built in Porthleven in 1905. Like many others, *Fiery Cross* relocated from the fishing grounds off Ramsgate in Kent to Brixham during the First World War due to U-boat activity.

Work on sites has included measured surveys, sketches, video and photography. When adverse weather prevented diving out of Dartmouth, volunteer divers and MAT staff redirected efforts to survey and record the remains of the *Kingswear Castle*, a steel paddle-steamer built in 1904 for the excursion market, now hulked on the Dart near Totnes.

## Artefacts

As well as recording archaeological sites, the Forgotten Wrecks project aims to record and catalogue as many artefacts that have already been recovered from relevant sites as possible.

Whilst some of these artefacts are on display in museums, many more reside in storage or in private collections. Staff and volunteers have been working with the owners and custodians of such artefacts to photograph and catalogue them, recording details such as size, material and condition.

The details and images volunteers collect during recording sessions have been used on the project website and in posters and booklets for the Discovery Bus and exhibitions. They are now being incorporated into the online database, thereby improving access and helping to 'virtually reunite' dispersed artefact collections with the vessels they came from.

Images:  
Top: Photograph on the wreck of the *Newholm* (1917), off Devon.  
Middle: Recording notes compiled during a survey of the hulk of the *Kingswear Castle* on the River Dart.  
Bottom: Volunteers surveying the barge *Wessex* on the River Hamble.

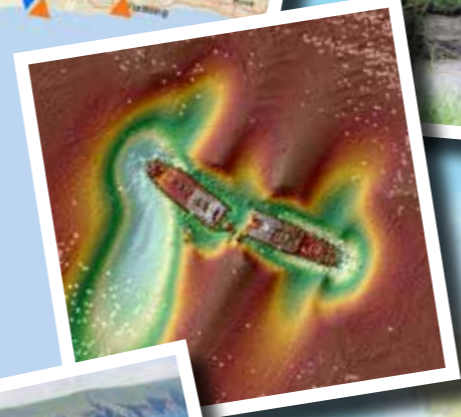
**Maritime Archaeology Trust Project Staff**

Sally Bennetts  
 Amanda Bowens  
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 Kathryn Dagless  
 Jose-Oscar Encuentra  
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**Sunken Secrets Staff**

Jacqueline Arnold  
 Sue Davies  
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 Tony Rayner  
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**The Maritime Archaeology Trust: 2016**



*In the past 12 months, the Trust has engaged the public through:*

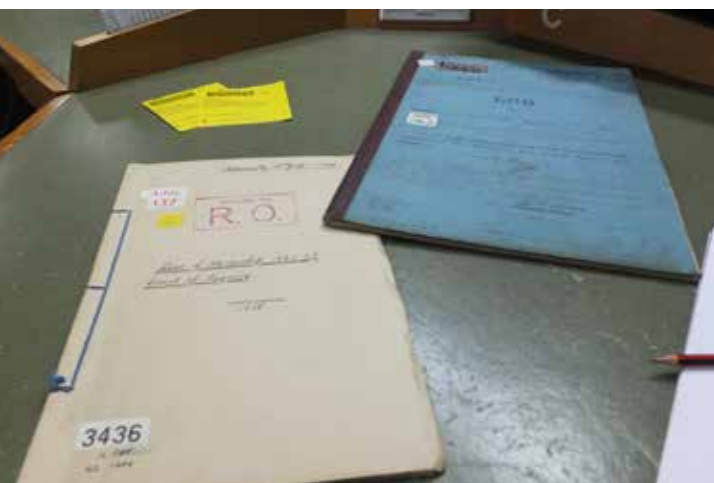
- 100,600+ visitors to *Forgotten Wrecks* temporary exhibitions to date.
- 4,000+ visitors to *Sunken Secrets* at Fort Victoria, Isle of Wight.
- 429 days of volunteer contribution to fieldwork, diving, outreach and resource creation.
- 76 Discovery Bus visits, talks and engagement events.
- 1,000+ pupils reached through education sessions for 18 schools.



- ◆ Temporary Exhibition
- Representation
- ▲ Education & Outreach
- Fieldwork

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

# Researching: Rewriting History with New Discoveries



Amazing new discoveries are demonstrating how marine and maritime archaeological remains provide evidence that gives a new perspective on human history. Gathering archaeological data is just the start of the process, once field records have been compiled then analysis and research can begin in earnest. Through the examination and exploration of a range of materials and sources including artefacts, ecofacts, samples, sediments, documents, manuscripts and accounts, new facts are uncovered and pieces of the 'jigsaw of history' are put in place.



The age of the site under investigation will determine the nature of research. Prehistoric sites can require scientific analysis of microscopic evidence alongside comparison of material from contemporary sites, to piece together the human story. This is ably demonstrated by the recent work on ancient DNA from the Bouldnor Cliff sediments (see page 5).



For medieval and post-medieval periods, records are initially sparse but grow significantly in volume as time progresses. The case of the Yarmouth Roads wreck (opposite) is a great example of how a brief reference in historical sources to the loss of a 16th century vessel, has tentatively been linked to seabed remains. Dendrochronological tests on a single timber may be about to prove or disprove this link.

For more recent periods, the often vast historical resource can help enormously with illuminating the physical remains. Examples from the Forgotten Wrecks project are demonstrating why it is important to study these remains archaeologically, as the articles, documents and plans in archives are only part of the story.



A diver recording excavated timbers on the Yarmouth Roads wreck site.

## Forgotten Wrecks Research Highlights

Historical researchers are our largest group of Forgotten Wrecks volunteers. They come from all walks of life and span all ages, sharing one common goal: to uncover the stories behind the forgotten wrecks.

Many dedicated volunteers are researching online as it is so flexible, fits well around jobs and school and can take place in homes across the country. Others are consulting primary sources held at The National Archives (TNA) and other collections around the country. In many instances, using the primary sources themselves has helped clear up confusion about ships' losses.

One example is the case of the two reindeers. Online sources including PastScape, the United Kingdom Hydrographic Office and Wrecksite all list one or two trawlers named *Reindeer*, said to have sunk off the Devon coast in March 1917. These records had become confused, duplicating details of builders, owners and cause of loss across both wrecks, creating the appearance that a single loss had been reported twice. However, research by a volunteer, using original Admiralty reports in TNA, has shown that there were indeed two *Reindeers*, which were sunk just over a week apart and within 50 miles of each other.

As well as researching as many of the 1,100 forgotten wrecks as possible, we are also looking at important elements of the war in the Channel, establishing vital context for the project. Themes such as the U-boat war, supplying the Western Front, the fate of U-boats after the war, convoys, fishing, minesweeping, the role of ports and harbours and coastal stations are all being covered in more detail. Some volunteers become so absorbed in a topic or site they have been researching that they write an extended article. These articles are the result of many months of hard work. Keep an eye out for these in online and printed format.

## ForSEADiscovery & Yarmouth Roads

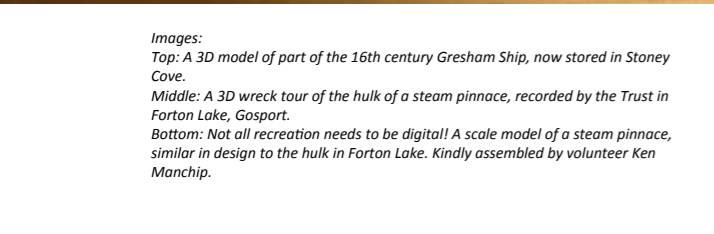
This season the Yarmouth Roads protected wreck site has been under investigation as part of the Marie-Curie funded ForSEADiscovery project. This project aims to reveal the relationship between shipbuilding during the Iberian Age of Discovery and the peninsula's deforestation in recent centuries. As the Yarmouth Roads wreck is long thought to have been a Spanish or Mediterranean merchant vessel, possibly the *Santa Lucia* (which sank in 1567 off Yarmouth), it makes an excellent case study. There are plenty of surviving timbers on the site that will help tell us if the ship was indeed Spanish, when it was built, where, and by whom.

Although divers encountered less than ideal conditions when they visited the site, including fast-running tides and mere centimetres of visibility, they managed to remove wood samples from 26 different structural timbers for analysis. During the cataloguing process one sample was found to preserve over 160 annual growth rings, indicating it was from an old, slow-grown oak tree. This is particularly outstanding because the vast majority of samples did not surpass even 20 rings! So due to this one sample's high ring count, the project's dendrochronologists and other wood scientists are in a better position to develop a sequence that may match with regional chronologies in Northern Europe and Iberia, for example. A close match would indicate a date for when the tree was felled, and when it was likely converted into a ship timber. As trees respond to local climate, a close regional match would also tell us where this tree was growing when it was felled. This can be a good indicator of where the ship was built, which is exactly what we want to know. We remain hopeful that the results, due in the coming year, will finally help determine the origin and identity of the Yarmouth Roads wreck.

For more information on the project, follow our blog at <https://forseadiscovery.wordpress.com/>

Images:  
Top: Just some of the documents consulted by volunteers in The National Archives, Kew, London.  
Middle: Timber sample from a stanchion on the Yarmouth Roads wreck showing clearly defined growth rings.  
Bottom: Volunteers Peter Crick and David Peters consult Admiralty records at The National Archives.

# Recreating: Creating Access to Hidden Heritage for All



Images:  
Top: A 3D model of part of the 16th century Gresham Ship, now stored in Stoney Cove.  
Middle: A 3D wreck tour of the hulk of a steam pinnace, recorded by the Trust in Forton Lake, Gosport.  
Bottom: Not all recreation needs to be digital! A scale model of a steam pinnace, similar in design to the hulk in Forton Lake. Kindly assembled by volunteer Ken Manchip.

Over the last year, in what could be seen as something of a technological Renaissance, the Trust has capitalised on recent advances in computer vision and digital presentation to drive home the impact of our work. Using initiatives first explored in late 2012, our capacity to record and disseminate submerged heritage has really taken off in 2016.

The MAT has been developing methods, techniques and understanding that constitutes a unique skill base for underwater recording of cultural heritage sites from an archaeological perspective. Due to the challenge and complexity of this type of recording in a subsea environment, it is something rarely attempted in the field of 3D visualisation.

Enormous quantities of data are now being collected on every dive, coastal and intertidal survey, from HD video and high resolution still imagery to massive 3D point clouds. Improvements in software enable views of sites, artefacts and archaeologists at work, both above and below the water, like never before.

In 2016 the Trust has sought to realise the full potential of this imagery and associated knowledge. Using virtual reality, we can now take our audience directly to these often otherwise inaccessible sites, to explore first hand a truly immersive and engaging environmental experience. Artefacts can be viewed and 'handled' over the web, and video acquired by drones allows us to present a view of our world and our past in a way that has not previously been open to us.

The Trust has been quick to respond to the opportunities presented through emerging technologies and we intend to remain at the leading edge of this field as they continue to develop.



A digital 3D model of German destroyer V82, identified in Portsmouth Harbour by the Forgotten Wrecks project. The model was created from 384 images captured during a drone survey.

## 3D Modelling

Preparing for an underwater site survey in 2016 is a very different process when compared to previous Trust activities, and maritime archaeological survey in general. Hours of painstaking baseline setup, trilateration, direct survey method and measured offsets resulting in a basic site plan have now been greatly enhanced by high resolution photographic and video survey whenever possible.

That is not to say that traditional survey techniques do not continue to have a vital role. Our divers still collect carefully selected measurements to provide scaling of 3D models and checks on overall accuracy and potential distortion. The archaeological survey experience acquired over many years of diving remains essential when conditions are less than optimal (this is the Solent we are talking about) or when the high-tech equipment fails, as sometimes happens when working at sea.

With high powered, long burn-time lighting of 60,000 lumens or more, we are increasingly able to capture a full data set in one or two dives that results in a photorealistic rendering of the wreck, object or deposit. This then provides the platform for detailed analysis not only of the surfaces recorded, but also by volume. By comparing data sets annually, quantitative information about how these sites are changing helps us understand the most serious threats to our underwater heritage.

## Virtual Wreck Tours

The digital 3D models that the MAT have been at the forefront of developing, are the latest tool in our public outreach toolbox. Not only do they enable virtual access to an otherwise inaccessible site or artefact, allowing users to zoom in/out, around and explore a site from the comfort of an armchair, they also allow us to take the user on a guided tour.

Using annotation, images and video, we can highlight particular features on a wreck, site or artefact while also explaining how it

was discovered, researched and identified. The Trust is leading the way in using this developing technology in this manner: helping people understand what they are looking at, as well as providing interpretation, background and context to the sites, artefacts and associated topics.

Dive in to our digital 3D models at:  
[www.maritimearchaeologytrust.org/threedee](http://www.maritimearchaeologytrust.org/threedee)

## Virtual Reality Outreach

2016 has seen the launch of our latest outreach tool: a state-of-the-art virtual reality system comprising a headset that transports you to a virtual world, in which you can select one of our digital 3D models for a totally immersive experience of exploration and discovery. With a 2 metre square piece of floor-space, the user can visit sites all over the world: walk over and around shipwrecks on the seabed, squat down and peak into a Neolithic passage grave in Brittany and look directly into the eye sockets of a 2 million year old skull.

Our Discovery Bus provides a unique and ideal platform from which to use such a system: offering a whole new world of access to all, so please come on board to give it a go.

## Tactile Models and Art

Recognising that the digital world is not for all, the Trust continues to explore a range of media and approaches for public engagement (see pages 14–15). This year we have benefited from the services of volunteers with artistic and model-building skills. A scale model of a steam pinnace, similar to the one being researched in Forton Lake, Hampshire, helps with site interpretation in a very tactile way. Meanwhile, a growing collection of beautiful and evocative pen and ink paintings by Mike Greaves, depicting the forgotten wrecks and associated themes, are being used in a range of settings and media, helping us reach broader audiences in new ways.



# Revealing: Sharing the Excitement of Discovery



The Trust is continually innovating and developing approaches and techniques for spreading the word about our work and the fragile and vulnerable maritime heritage we research and record. Maritime heritage, whether on the coast, foreshore or under water, can be less accessible than other historical sites, so we have to work that much harder to improve and encourage access and awareness. We are also constantly creating opportunities to reach new audiences through different media and approaches.



Our websites and social media profiles (Facebook and Twitter), have seen a healthy growth in followers and users this year. A variety of media are available online, including written articles, reports, videos, virtual dives and digital 3D models. Audio articles, originally produced to reach visually impaired audiences, have been popular as downloads from our website, the Battlefield Tours Programme website and broadcast by Southampton Hospital Radio.



Our bespoke outreach vehicle, the HLF Discovery Bus, enables us to get out and about at public events and venues all over the country and beyond. Next year it will make its first trip to Cyprus, thanks to the Honor Frost Foundation.

Face-to-face engagement is essential to our public outreach and education work, whether using the Bus or Event Tent. Every year we meet hundreds of people through talks for local societies and groups and we continue to work with schools, taking our resources and activities to them or providing unique opportunities for cross-curricula learning outside the classroom.



Volunteer thank you and public engagement event on board SS Shieldhall.

## Schools

This year, over 1,000 students from 18 different schools, from reception to KS3, have benefited from MAT workshops in schools and at Sunken Secrets. During these sessions, pupils get a chance to be hands-on with heritage: engaging with the past through real and replica archaeological artefacts and exploring what it is to be a maritime archaeologist through trying on dive kit and experimenting with miniature airlifts.

*"[The MAT visit] really inspired children who are often difficult to engage in their learning. All the children were raving about how fun it was and how much they learned without knowing they were learning!" – Primary School Teacher*

New resources for schools available in 2016, include the Hollybrook War Memorial Teaching Pack and The Great War Shipwrecks of the Channel Crossing booklet.

## Events

The Trust has attended events across the length and breadth of the UK. From Mousehole in Cornwall to Ramsgate in Kent and from Portsmouth to Birmingham, the MAT has brought maritime archaeology to over 76 events. These include festivals, fetes, talks, workshops and academic events. More than 8,000 people have attended, with some having travelled from as far as Australia. Event highlights have included Plymouth Armed Forces weekend, which saw over 3,000 people visit the Discovery Bus in two days, celebrating Merchant Navy Day at Weymouth Waterfest, and promoting the Forgotten Wrecks project in the beautiful surrounds of Mousehole harbour.

Working with SS *Shieldhall* we have been able to offer engaging public outreach for pupils and the public on a steam ship of a similar design to many being researched through the Forgotten Wrecks project. *Shieldhall* provides the perfect living-context for hands-on sessions that link seabed remains with what can be seen and touched on the ship.

Outreach does not only happen at official events and this year the MAT has engaged the public with maritime archaeology in a whole host of unusual places, from quaysides and ferries, to surfers offshore while snorkelling a wreck!

Meeting the public usually results in people expressing amazement and delight at the maritime heritage on their doorstep and is a vital means of helping to protect and preserve sites for future generations. Next year, the programme of talks, events and exhibitions will continue to reach throughout the UK and beyond, promoting MAT projects and findings to more people than ever before.

## Exhibitions

Our seasonal exhibition at Sunken Secrets, in Fort Victoria on the Isle of Wight, aims to explore and share our submerged and maritime heritage and strengthen understanding of how people's connection to the seas around us have shaped our culture. To help achieve this during 2016 we have updated and improved our exhibitions and added displays and activities. This has included a complete overhaul of the Yarmouth Roads room where the bronze cannon now has pride of place and context.

Another new exhibition shows the type of archaeology that can get caught in fishing nets, and an updated Bouldnor Cliff display includes a Stone Age man seeking warmth by a fire. Younger visitors have been enjoying a replica ship's galley complete with pots, pans, food and a stove: having fun, while learning about food on-board ships. Finally, with our new archaeological dig attraction, visitors of all ages have been excavating to discover important artefacts that might be found under water, such as clay pipes, bleeding bowls and hand axes.

Meanwhile, more than 100,000 people have visited our Forgotten Wrecks exhibitions concurrently on display at a range of venues in Kent, Sussex, Hampshire, Devon and Cornwall.

Images:  
Top: The Discovery Bus at the 2016 Armed Forces Day event in Plymouth.  
Middle: Beavers from Eastleigh have a go at recording a 'shipwreck'.  
Bottom: The Yarmouth Roads gun room at Sunken Secrets after its makeover.

# Revolutionising: Developing MAT for the Future

## Friends of the MAT

During our 25th anniversary year the MAT is developing its 'Friends' organisation. Members have a keen interest in maritime heritage and a strong desire to see it rescued, recorded and revealed. Anyone is welcome to join and there are a range of activities on offer which members can participate in and enjoy, whether outdoors in the field, in the laboratory, office, archives or from your own home. As a charitable organisation we rely heavily on the efforts of volunteers to assist us, so the support of our 'Friends' is much appreciated.

Friends' benefits include:

- Exclusive opportunities and offers, including fieldwork
- Access to special events and activities for you and your family such as talks, workshops and trips
- Newsletters and updates direct to your inbox
- MAT Annual Report

Not all of our volunteers are 'Friends' and conversely not all of our 'Friends' are active volunteers, however, we would like to encourage anyone who is interested in showing their support for the MAT to consider joining. We are now moving to a new single annual membership flat rate of just £12 per year – so for just £1 per month you can support the MAT. If you are a current 'Friend' in one of our previous membership categories we will be writing to you soon to explain this change and ask if you would like to move to our new rate.

Go online to find out more and download an application form: [www.maritimearchaeologytrust.org/friends](http://www.maritimearchaeologytrust.org/friends)

## Transition

'Push the Boat Out: navigating future funding for the Maritime Archaeology Trust' is our HLF-funded project which aims to support strategic development through increased management, business and financial skills within the Trust. There is a particular focus on diversifying funding models and reviewing revenue streams to develop sustainability. The grant has enabled staff and trustees to attend training in a variety of fundraising methods, attend workshops and conferences, and undertake work to develop new income. It has been possible to draw on external expertise for aspects where MAT do not currently have in-house skills.

We have been considering the impact of changing perceptions of the Trust as we have grown from a regional organisation and moved from using our previous 'Hampshire & Wight Trust for Maritime Archaeology' name to our alternative MAT brand. How we are marketing the MAT is also changing with the many new opportunities using online platforms, this is also a developing area for funding with online-giving and crowd funding now available.

Regional, national and international partnerships have been developed which are opening up new areas of funding and events have been run which have increased awareness of the Trust amongst a wide audience and attracted new donors. More events are being planned which will be advertised through our Facebook and Twitter pages. The ultimate outcome is to ensure the MAT is best able to continue to help protect, preserve, interpret and promote maritime heritage for current and future generations.



**National Oceanography Centre, Southampton**  
UNIVERSITY OF SOUTHAMPTON AND  
NATURAL ENVIRONMENT RESEARCH COUNCIL



Historic England



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- Beaverbrook Foundation
- British Marine Aggregate Producers Association (BMAPA)
- British Ocean Sediment Core Research Facility
- Butley Research Group
- Centric Community Projects
- CITiZAN South East
- Daisie Rich Trust
- DigVentures
- Ernest Cook Trust
- Fidelity Trust
- Gosport Society
- Mike Greaves - [greaves2connections.com](http://greaves2connections.com)
- Hampshire County Council - Activity Grants Programme
- Honor Frost Foundation
- Hurst View Campsite
- Institute of Physics

- John Coates Charitable Trust
- Mark Milburn - Atlantic SCUBA
- Michael Waterhouse
- New Forest National Park Authority
- Oakmoor Trust
- Oxford Materials Characterisation Service
- Peter Brigham
- Royal Navy
- HMS Warrior
- Southampton Area Talking Echo
- Southampton City Council
- Shipwreck Centre and Maritime Museum
- Talking News Federation
- TAL Scuba
- University of Southampton
- University of York
- Valerie Fenwick
- Volker Dredging Ltd
- Dave Wendes & Wight Spirit



Images: Left: Friends of the Trust on a coracle building workshop. Right: Helping with experimental archaeology – Mesolithic wood working techniques.

And of course a big thank you to all our volunteers, without whom we could not achieve what we do. Find out more about the work of volunteers and how you can become involved in our booklet 'Volunteering Matters'.

# 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 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 Newholm as part of the Forgotten Wrecks project; digitising records made on site; the Menhir de la Tremblais in Brittany, France, a 3D model captured for the CCC project; re-assembling the timbers recovered from Bouldnor Cliff.*

