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Garry Mombor, BA (Hons), MSc, MCIfA, FSUT. Director; Julie Satchell, BA (Hons), MA, MCIfA, FSA. Head of Research
2020 has been a challenging year for the Maritime Archaeology Trust as we deliver our programme of events and fieldwork. However, both before and after lockdown, opportunities have been seized to deliver our core objectives of research, preservation and dissemination. In the months that followed the 2019 AGM we continued research into Southampton’s D-Day wall as part of the National Lottery Heritage Fund D-Day stories from the Walls project, which has resulted in an education resource pack, a booklet and a walking tour of Southampton’s WW II memorials.

In February and March the spring tides enabled teams to get to the lowest parts of the beach on the Solent foreshore where new archaeological features dating from the Neolithic to the Roman period are being uncovered. On one cold and rainy visit we were accompanied by the press, whose report made it to the BBC and as far afield as Australia. The finds from the intertidal zone are rare and they tell us about our ancestors’ relationship with sea as the water level rose in the past, but they also indicate how the coastline is changing today. The results of this work provide a very valuable source of information that can be used by coastal managers to monitor erosion. This research is being incorporated into the EU Sustainable and Resilient Coastal Cities project within which we are a partner.

We also managed to get divers under water on numerous occasions. Shipwrecks that we have studied included 16th century Spanish galleons in northern Spain and Corsica that were of similar date to the Santa Lucia wreck off Yarmouth, and closer to home, a 19th century ship with a significant cargo of train components, tightly packed and on the way past the Isle of Wight to Denmark. In more recent months socially distanced teams have been to the submerged Mesolithic site of Bouldnor Cliff where we recovered dozens of worked flints and tools that had eroded from a submerged sand bank. The work has now defined the limits of this underwater feature and identified areas where the architectural resource is most concentrated and under increasing threat from erosion.

The recent discoveries at Bouldnor Cliff have formed a new display alongside the vast array of shipwreck artefacts at the Shipwreck Centre and Maritime Museum on the Isle of Wight. Unfortunately, it remained closed during the early summer but it was able to open in August and we now provide access to socially distanced and managed groups.

Following the 2020 AGM, the Maritime Archaeology Trust begins its 30th year. During the last three decades we have increased our research, our capacity and our ability to share the hidden secrets below our waves. Digitisation of data to present these achievements has been key to our success and the new restrictions brought on by the COVID-19 pandemic has accelerated the need for virtual dissemination. Our experience puts us in a great place to respond to the ‘new normal’ as more and more of our material, along with this Annual Report, goes online via our website at www.maritimearchaeologytrust.org. This includes the 2020 lecture series that would normally accompany our AGM; these great talks will now be accessible around the world via the internet.

The maritime archaeological projects outlined above and the many presented within this report were possible thanks to the support of organisations that provided funding and logistical help. I would like to thank the many individuals for their donations and for volunteering hundreds of hours of their time, all of which are acknowledged at the back of this Report. I wish to thank members of the Management Committee, our Trustees, for their guidance and support and, I would particularly like to mark the Trust’s thanks to Garry Momber our Director and to all our members of staff for their vital work on research, income generation and dissemination in these most challenging times. Finally, I am honoured to welcome Susie Sheldon, Lord Lieutenant of the Isle of Wight into the post of Vice President.

Michael J Woodhall BEM FRICS
Chairman
The work of the MAT is enabling maritime heritage to be fully explored, understood and enjoyed by all. As we enter our 30th year of operations we are now one of the longest-running specialist maritime archaeological organisations in the UK, working nationally and internationally. The need to make underwater, intertidal and coastal sites accessible has driven our holistic approach which embeds learning, involvement and enjoyment of heritage within our projects. ‘Access for all’ is increasingly being achieved through our expanding online, digital and virtual resources.

A Year in Depth is focusing on how the MAT has led the field in providing access to maritime archaeology through visualisation and interpretation. It highlights the diversity of methods we have developed to overcome the perception that the underwater cultural heritage is remote, scarce and difficult to reach. The impact of COVID-19 has precipitated our drive to incorporate new technologies as we embrace the possibilities they offer.

Providing virtual access to underwater sites through 3D modelling and visualisations means images of lost shipwrecks can rapidly reach a wide audience. Diving conditions often mean it is only possible to see limited amounts of a site at one time, so developing full-coverage 3D maps provides an all-important overview. The MAT is pioneering techniques that allow us to record whole wreck sites in the most demanding environments.

Image: Perspective view of the wreck of the 19th century schooner Brackenholme, featuring two 1860s steam trains which were being exported to Denmark. The wreck lies in 37m and with visibility at less than 1m, 3D recording provides an understanding of the wreck in its entirety.
Chesil Beach Protected Wreck Sites – Working with the Nautical Archaeology Society and with funding from Historic England, the MAT has been investigating two sites, 300m apart, off Chesil Beach that are marked by clusters of cannon on the seabed. The project has trained divers and helped to build a local team who will continue to investigate and protect these nationally important collections. Over 2,000 photographs were taken to produce 3D models of the cannons and associated artefacts, these will now be used as the basis for an online tour of the wrecks.

‘Train Set Wreck’ – Yet another significant wreck site located off the Isle of Wight by Dave Wendes of Wight Spirit Charters is the Brackenholme, which was lost in 1865 while carrying a cargo of rare train parts from Liverpool to Denmark. This wooden schooner was built in 1857 in Goole, the vessel was 25.5 metres long and 115 tons and spent its life trading to Scandinavia and across European ports. The remains of two unique 19th century steam trains now rest on the seabed in their component parts, a cargo that is likely to preserve the lower hull of the wooden schooner beneath the sand. The MAT divers have developed some stunning 3D imagery in challenging conditions in late 2019 and 2020.

Other ways that our digital records are making wreck sites more accessible include the online archive deposited with the Archaeology Data Service for the artefacts from the protected wreck of the Stirling Castle. This archive was produced in support of the MAT’s analytical work, which has now been published within our Monograph Series. The volume ‘The Stirling Castle, a 70-gun Ship Lost in the Great Storm of 1703: Archaeological Investigations 1979-2009’ includes a history of the ship, its investigation and the seabed environment along with consideration of shipbuilding and specialist analysis of the artefact collection. The work has provided a compelling insight into the maritime world of the 17th and 18th centuries.
Visualisation for Interpretation

**Submerged & Hidden Landscapes**

Visualisations and technology for survey and graphics are enabling new approaches to archaeological interpretation. Understanding submerged and buried prehistoric landscapes and associated archaeological sites and features is an area where this has been particularly beneficial. Not only are these sites and landscapes either under water or only exposed in the intertidal zone, they are also buried under layers of paleoenvironmental and geomorphological deposits. This makes access and interpretation even more challenging.

The western Solent is of international significance for its sequence of submerged prehistoric landscapes and they have been under investigation by the MAT for almost 30 years. We are deploying a range of digital recording techniques to develop 3D models and interpretation that help bring prehistory to life. Underwater photogrammetry and drone-based survey are now incorporated into all of the MAT’s diving and intertidal fieldwork activities. Two examples of sites where fieldwork has been possible this year are presented below.

**Bouldnor Cliff**

At the 8,000-year-old Mesolithic occupation site of Bouldnor Cliff, 11m below the water off the Isle of Wight, an area of the eroding underwater cliff was investigated. Its regression has been monitored since 2003, with some sections showing a retreat of up to 7 metres in 17 years; being approximately 0.4m per year. This is happening because the alluvial clay that forms the cliff is fracturing and collapsing. The clay is above an old sand dune complex that is rich in archaeological material. As the cliff retreats artefacts are uncovered and end up on the seafloor. Survey in the area where the erosion is greatest revealed 101 worked or burnt flints that were recovered from in front of the cliff. This included 49 burnt flints, 38 flakes and 14 bladelets, tools or cores. Inspections 400m to the west revealed fresh patches of erosion with new exposures of Mesolithic timbers.

A new prehistory display with the support of the Herapath Shenton and the Scorpion Trusts has been created at the Shipwreck Centre and Maritime Museum on the Isle of Wight (see page 11). The exhibition charts the Stone Age phases of occupation in the region over thousands of years. These events are linked to climate change. The Bouldnor Cliff artefacts are central to the display.
Thorns Beach
Erosion of protective sediments at Thorns Beach has revealed a Neolithic landscape which stretches for over 800 metres and includes a buried palaeochannel, peat outcrops, preserved trees, worked wooden posts and a basket-type feature. Field investigations have involved walk-over surveys, detailed recording of features, auger survey, aerial survey and scientific dating of materials. The development of a digital terrain model of the foreshore has helped interpret individual features within their wider landscape.

Well preserved organic posts and peat deposits have dated the landscape to around 5,000 years ago when sea level would have been 4-5 metres lower. The use of the area, which was adjacent to a small stream feeding into the larger Solent channel, demonstrates that Neolithic people were exploiting the coastal environment. This not only sheds a new light on prehistoric communities, it also shows how rising sea level deposited sediment over the area which has protected it for thousands of years until modern erosion is now placing these features at risk.

Images, top to bottom: Digital terrain model of Thorns Beach. The light blue at the bottom of the image is 0.1m above Chart Datum (1.9m below OD); Structured light scanner, digital 3D model of the 33cm long post from Thorns Beach, the wood has been trimmed to form a point before being pushed into a fluvial clay; Posts in situ at Thorns Beach.
This 100m long Italian steamer, the SS *Gallia*, was torpedoed in 1917 by UB-40, and has been made into a digital 3D model.

To collect data for the model, divers swim up and down the site, collecting hundreds of photographs. These images are then run through software which uses points it can see across multiple images to build up a 3-dimensional cloud of points. The original photographs are then blended together and draped across the model to create the final product.
Access
The wreck of the Gallia now lies in 40m of water off the coast of Dorset. Without a 3D model, very few people would ever get to see this site.

Interpretation
3D models such as this can be millimeter accurate to the real thing, so can be used to take measurements and produce plans which would take much longer with traditional methods.

Education
Annotations and extra the MATerials like photographs, plans, and video, can be added to the model to create a rich learning experience.

Research & Management
Models like these capture a moment in time, and can be referred back to in the future to compare how the wreck may have degraded or shifted, which may feed into site management plans.

Supporting Us
The MAT is a charity, and relies on the support of trusts, foundations, funding bodies, companies, organisations, and the general public in order to continue our work.
If you would like to support us, please visit: www.maritimearchaeologytrust.org/support-us
Digital visualisations of historic assets, ranging from single artefacts to whole landscapes, are being used to engage the public and schools as inspirational tools to aid learning and understanding. 3D models can be supplemented with information, annotations, extrapolations, images and video to provide more detailed interpretation. These visualisations can also be experienced in virtual reality, transporting the viewer to an animated site environment, resulting in an immensely powerful tour that comes astonishingly close to the real-world experience of visiting cultural heritage.

The MAT has been harnessing the power of visualisations to reach a wide range of audiences. Having digital resources to use alongside more traditional displays of artefacts and text-based exhibition panels, within learning resources and at events delivered using the Maritime Archaeology Discovery Bus provides unparalleled avenues for accessing maritime heritage.

**D-Day Stories from the Wall**
The D-Day or ‘American’ Wall is located near Southampton Docks on a route that many soldiers took while passing through the city on the way to France. Around 100 names were carved by American soldiers on this wall. Thanks to funding from the National Lottery Heritage Fund the wall has been recorded and researched. The results form the basis of an online interactive viewer that puts an annotated 3D model at the centre of the resource. This unique viewer allows you to zoom into the bricks to see the inscriptions and view details of the individual soldiers including photographs and military documents.
There are a number of associated resources that have been created including an education pack with curriculum links that can be downloaded for use by educators. Prior to COVID-19 we delivered education sessions within Southampton schools which combined D-Day linked tasks with a visit to the wall. Feedback from sessions has been very positive and has been shared with audiences online, one response received sums up the impact of this project: “My grandfather left out of here with 106th headed to front lines….he wouldn’t make it back home….buried in Belgium… you can’t know how it warms my heart to see that these youngsters are learning about them, their sacrifices …” (K.S).

www.maritimearchaeologytrust.org/ddaywalls

Shipwreck Centre and Maritime Museum

At the Shipwreck Centre and Maritime Museum at Arreton Barns on the Isle of Wight there have been significant changes during 2020 – some planned, but others unexpected. This fantastic collection includes artefacts, models, paintings and maritime curiosities that have been brought together by Martin Woodward and provide an exceptional insight into the shipwreck heritage from the waters around the Island.

Development of new displays ahead of the seasonal opening of the Museum included a re-vamped Prehistoric Gallery which brings together artefacts from Bouldnor Cliff submerged Mesolithic site with information on sea level change and early water craft. The interpretative material contains digital models and reconstructions allowing data to be presented in new, exciting ways. Additional displays were created through the inclusion of artefacts previously on display at Fort Victoria and in Hurst Castle including a spectacular 17th century bronze cannon and an early diving bell.

COVID-19 lockdown has had a significant impact on the Museum, initially being closed for several months, then requiring the installation of a range of measures ensuring it was possible to open to welcome booked groups. Support from the Arts Council England through the South East Museums Development Programme has helped make the changes. The restrictions have not impacted the visitor experience with positive feedback such as “This is a real treasure trove! We watched a really informative dvd made by the diver who has collected most of the artefacts. The staff who greeted us were knowledgeable and because of C19 restrictions we had the place almost to ourselves. Thanks very much” (M.S). Although it has been a challenging year we look forward to further updates ahead of the 2021 season.

www.museum.maritimearchaeologytrust.org
Methods of digital visualisation to present archaeological data for improved research and management approaches are being increasingly applied to the marine zone. The importance and impact of the MAT’s online viewer for the Forgotten Wrecks of the First World War project (www.map.forgottenwrecks.org) was recognised as ‘highly commended’ at the Maritime Foundation’s 2019 Maritime Media Awards. The viewer provides new perspectives on the First World War at sea allowing over 1,100 wrecks to be interrogated. This has revealed statistics and patterning related to the vessels lost during each year of the war, along with the causes of loss, the types of vessel lost, the nationalities of ships, their ports of departure and planned destination, and what they were being used for at the time of sinking. It helps raise the profile of the physical remains of the conflict and contributes to remembering and commemorating those lost at sea.

The development of online access to large datasets and their use in evermore dynamic digital formats is likely to accelerate as we enter the UN Decade of Ocean Science for Sustainable Development (2021-2030); this brings together scientists, policy makers, managers and service users to advance new maritime initiatives, one of which being a comprehensive digital atlas of the ocean. The MAT is supporting the inclusion of heritage within the Decade of Ocean Science through our membership as an accredited NGO with the UNESCO Convention for the Protection of Underwater Cultural Heritage.

The integration of archaeological and historical data within multi-disciplinary studies is also aiding decision making for coastal managers who face an ongoing battle to moderate impacts from the sea in the face of a changing climate and human pressures. The use of sites such as hulks, buildings and prehistoric peat deposits as indicators for coastal change reveals information on the scale and pace of erosion spanning from the past decade to thousands of millennia. This work has resonance across western European countries, many of which face similar challenges. The Sustainable and Resilient Coastal Cities (SARCC) project (funded by the Interreg 2 Seas programme 2014-2020; co-funded by the European Regional Development Fund under subsidy contract No2S06-050), is working with EU partners to use archaeological, historical and artistic evidence to inform on long-term coastal change, the results of which can feed into Nature Based Solutions for coastal management. Planned geo-portal outputs from this project will present digital data for dissemination.
The digital dissemination avenues used by the MAT continue to expand. Our social media channels have been used extensively to provide updates on our projects, present new resources and communicate in this lockdown year. We are pleased to see our numbers of followers grow significantly over the past 12 months. We regularly have over 60,000 per month engaging with our newsletters and social media. The MAT website is undergoing a re-design to make our extensive range of projects and resources more accessible in a modern format that is mobile compliant.

We have taken advantage of new opportunities for delivery of and involvement in online talks, webinars and events. This has included the DigNation online festival which presented archaeology sites from around the world (www.digventures.com/projects/dignation/) and the Nautical Archaeology Society programme of weekly talks (www.nauticalarchaeologysociety.org/coved-talks-weekly-webcast).

Vital Volunteers - Going Virtual

The popularity of online or ‘virtual’ volunteering has been growing rapidly. An ever-increasing number of archives and resources are being digitised for use in research. This, combined with more volunteers wishing to have tasks they can do from home, increases opportunities for people to become involved in heritage.

This is fortunate at a time when COVID-19 has meant most of our volunteering has been ‘virtual’. Examples include the D-Day Wall project where genealogy and war service sources have been utilised extensively. This has attracted new as well as regular volunteers who have been applying their online research skills to unveil stories that are adding a new dimension to our understanding of the fate of individuals who passed through Southampton. Feedback from volunteers reveals their connection to the project and the soldiers: “On a personal level I love the investigative challenges of deciphering an etching and revealing that person. The work has kept my brain active thru lockdown. I enjoy discovering the previous lives of these soldiers who had no idea of what turn their lives would take after they had left their mark on the wall. In some cases we have been able to trace them after the war and even communicate with their families. The wall is a memorial to those who survived the war” (M.F, Volunteer). Prior to COVID-19 lockdown and, where possible with social distancing, we have benefited from in-person volunteers in the field, at the Shipwreck Centre and in the office. We extend a big ‘Thank You’ to everyone who has contributed in what has been a challenging year.

Between September 2019 and August 2020 we have benefited from 60 volunteers providing 451 days of their time to support us.

Interested in volunteering? Find out more: www.maritimearchaeologytrust.org/volunteering

The MAT is a Registered Organisation with the Chartered Institute for Archaeologists (CIfA) and is Accredited to the Governing Bodies of the 2001 UNESCO Convention on the Protection of Underwater Cultural Heritage.
The Friends of the Trust support the work of the MAT; they organise a range of activities linked to the MAT projects as well as running projects of their own. During the past year the Friends have completed the ‘Shipwrecks for the Senses’ project, funded by the National Lottery Heritage Fund, to take outputs from the Forgotten Wrecks of the First World War project to audiences with sight and hearing impairment. It included providing training for Friends to work with these audiences and to deliver sessions across Hampshire.

The project reached over 300 session participants who were very positive about the experience. E.D told us that she was “Pleasantly surprised; it was unexpected. I would not have missed it for the world. Never too old to learn”. Friends members were equally enthusiastic: “I have really enjoyed helping to bring the story of the Forgotten Wrecks of WW1 to the members of the various clubs for those living with sight and hearing disabilities. It goes without saying that I also learned a lot. It was fun interacting with the club members and seeing that so many of the people obviously enjoyed the sessions, particularly being able to handle the artefacts. All in all it has been an educational and jolly time” (J. M, Friend of Trust).

To become involved and find out about future opportunities you can join the Friends group: www.maritimearchaeologytrust.org/friends

Images: Shipwrecks for the Senses sessions.

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Andy Williams - Justine Williams - Martin Woodward - UK Global Challenges Research Fund

Maritime Archaeology Trust Project Staff
Jacqueline Arnold - Sally Bennettts - Jan Gillespie - Christin Heamagi
Rebecca Ferreira (to September 2020) - Brandon Mason - Jasmine Noble-Shelley - Helen Wallbridge

Shipwreck Centre Staff
Janet Shaw - Helen Woodward - Elaine Rice

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 at:
www.maritimearchaeologytrust.org/volunteering
Promoting interest, research and knowledge of maritime archaeology and heritage

Maritime archaeological discoveries offer new perspectives on human history and the marine environment from the earliest of times. For 30 years, the Maritime Archaeology Trust has provided rare opportunities for active involvement in archaeology under water, on the foreshore, along the coast and through research in archives, museums and from home. We remove barriers to access, raising the profile and understanding of our fascinating maritime heritage through education and outreach activities in schools, colleges, outdoor learning and public events, a museum on the Isle of Wight, touring exhibitions, our mobile Discovery Bus, publications, leaflets, and a whole host of online digital resources.

The Maritime Archaeology Trust’s objectives are to:

Investigate: maritime, coastal and underwater archaeology

Engage: people, communities and schools through involvement, enjoyment and education

Promote: hard to reach and inaccessible maritime heritage

Protect: through supporting heritage management for current and future generations

Maritime Archaeology Trust
Charity Registration Number: 900025
Company Limited by Guarantee
Registered in England - Number: 2394244
National Oceanography Centre, Room 014/11, Empress Dock, Southampton. SO14 3ZH
Telephone: 02380 593290
Email: info@maritimearchaeologytrust.org

Bankers: Lloyds Bank PLC, 49 High Street, Winchester
Accountants: Morris Crocker Ltd, Station House, 50 North Street, Havant

Facebook: @maritimearchaeologytrust
Twitter: @maritimetrust
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