Royal Archaeological Institute 2015 Conference

‘Ships and Shore-lines: maritime archaeology for the 21st century’ Southampton, October 16-18

ABSTRACTS

Friday 16 October

18.30 Key-note address by **Jonathan Adams** (Centre for Maritime Archaeology, University of Southampton) ‘*Maritime Archaeology in the 21st Century’*

Maritime archaeology is now well over a half a century old, yet we still to talk of it as ‘new’, perhaps out of habit but also because ‘new’ suggests something fresh, exciting, challenging and potent with possibility, all things its practitioners would happily agree with. It is certainly one of the newer domains of archaeological research (and teaching). But as the UNESCO volume ‘Nautical Archaeology, a Nascent Discipline’, was published in 1972, ‘newness’, is getting a little hard to justify. Indeed, leaving aside the semantic distinction between the terms ‘maritime’ and ‘nautical’ (the former encompassing the latter), I would argue that the earliest instance of maritime archaeological research that would satisfy today’s professional codes of conduct goes back to 1960 when George Bass excavated the Bronze Age wreck at Gelidonya in Turkey.

Of course there is another aspect to being a practitioner in a new field, in this case a new domain of archaeology: it is a convenient defence against criticism of practice, whether in terms of protection and management, research strategy, theory or method. And criticisms there have been. Those who have been working in the field for some years will remember them well – maritime archaeology was too focused on ship and boats (shipwrecks in particular), it was theoretically immature, it was slow to publish and was seen as something of a niche interest with little relevance to the discipline at large. To an extent, defence based on newness was justified, for until maritime archaeology gained a measure of institutionalisation, i.e. legislative protection, presence in the minds of policy makers and heritage managers, integration in wider regional and national research strategies, and of course a toe hold in higher education, the status of a mature and coherent area of research was difficult if not impossible to achieve. But to varying degrees these things have been achieved in many countries and have had profound effects. In these places maritime archaeology is no longer liminal and no longer the preserve of a few enthusiasts regarded as being on the fringes of the discipline (or outside it). This paper, as collectively do all those presented at this conference, explores the nature of maritime archaeology in the 21st century in terms of its scope and aspirations. It does so through a series of current projects which show two things: firstly they highlight the pace of development (the glass half full). They also throw some of the subject’s remaining challenges into stark relief and which from some perspectives seem insurmountable (the glass half empty). But the paper concludes, not in fatalistic gloom and doom, rather with a proposal for the most effective way of meeting these challenges as well as viewing them within a wider context of progress.

Saturday 17 October

9.30 **Garry Momber** (Director) and colleagues: *'The work of the Maritime Archaeology Trust'*

Jose-Oscar Encuentra and **Garry Momber**
'A voyage of discovery: maritime archaeology across Europe'

The Maritime Archaeology Trust has been pushing maritime archaeology forward within the framework of European Projects for almost two decades. Key issues have been the importance of the heritage to inform and educate (Atlas of the 2 Seas Projects A2S), and an identification of the value of the resource to help us understand coastal change (ArchManche). The A2S project covered a number of themes. First, it involved cross-border research, survey and excavation. Secondly the information was developed into education resources that were translated in three languages. Thirdly, education programmes, based around the collaborative fieldwork were run for schools in three countries. Finally, a trilingual web portal was set up giving the outside world access to information about thousands of wrecks. The Arch-Manche project is demonstrating how maritime coastal heritage and art can be used to show long-term patterns of coastal change and the impact on human settlement. Study of this data allows understanding and modelling of past reactions to climate change. The results can now inform sustainable policies for adapting to coastal climate change. The latest Trust project is Common Cultural Connections (CCC'S). The CCC's project has been delivering an innovative mobile exhibition on our shared cultural heritage, through the MAT's Discovery Bus. This has engaged with new audiences in Britain, France and Spain, providing opportunities for people of all ages, backgrounds and abilities to learn about and become involved with their maritime cultural heritage. The Discovery Bus has attended events and open days, and visited schools and groups in all three partner countries. It has maintained an online presence and utilised social media. All these projects have raised capacity, awareness and the relevance of the submerged cultural heritage in different countries and across different sectors.

Garry Momber
'Results from Bouldnor Cliff, Isle of Wight, and their European relevance'

Following the Last Glacial Maximum, lower sea level enabled the occupation of what was to become the North Sea. Common cultural signatures from Britain to mainland Europe can be found in the archaeological record until sea level rise separated Great Britain from mainland Europe after forming the North Sea. This presented a period of great change causing the people of the Mesolithic to adapt if they were to survive and flourish. The need for adaptation reached its zenith around 8,000 years ago when a growing population was overwhelmed by floods and tsunamis that drowned large tracts of land, disrupted subsistence patterns and severed social networks. Other challenges included the northward migration of forests while the ingress of the sea isolated communities on islands but on a positive note, the changes presented new opportunities that facilitated adaptation and sowed the seeds of modern European cultures. The increasingly temperate climate supported the expansion of farming from the south-east to the north-west regions of Europe while the ingress of marine environments into the Channel, North Sea and Baltic necessitated technological advances that helped exploit the growing, resource rich estuarine environments. Information on the interplay between the cultures that were lost below the coastal seas around Britain, as it became separated from the European mainland, have been hard to extract from the archaeological record on land. However, recent discoveries from the well preserved

submerged deposits dating to this crucial time of change are raising new questions about prehistoric human networks. This paper reports on the results of DNA analysis from the drowned Mesolithic site of Bouldnor Cliff, UK, along with a reappraisal of the archaeological evidence from this land under water, to question our perceived understanding of European cultural connections.

Julian Whitewright
'South Coasters: the maritime archaeology of two 19th-century shipwrecks from the Solent'

Amongst the myriad of shipwreck losses around the coastline of Britain, including the south coast and Solent, is a significant number of vessels dating to the 19th century. This period, although often overlooked by maritime archaeological investigation in favour of older sites, is becomingly increasingly studied. In part this is because of a recognition of the pivotal role that maritime activity, and ships in particular, played in the shaping of the globalised world that we now inhabit.

Very often, historical study of 19t- century vessels focusses on larger vessels of higher status or notable technological achievement; tea-clippers, ironclads and the like. Meanwhile, archaeological investigation has tended to be directed towards medium-sized merchant vessels, including ships engaged in both regional and long-distance trade, especially those constructed in the north-east of England.

In contract to this, recent archaeological work undertaken by the Maritime Archaeology Trust serves to highlight a class of smaller vessels, representative of the more 'ordinary' ships that plied Britain's coastal waters. Such ships, engaged in the coasting trade, can be seen as providing the mundane, everyday connections to maritime trade and exchange. Two sites of such shipwreck losses, from Alum Bay on the Isle of Wight, and the East Winner Bank, Hayling Island, are presented here. These two vessels allow a change in focus to the archaeological remains of ship types that often go unremarked in historical narratives of the period. They also allow us to engage in useful discussion about the nature of small-scale wooden shipbuilding within England during the 19th century. Finally, the contrasting methods of discovery, site environment and resulting fieldwork provide useful case studies for understanding the management requirements for relatively small shipwreck sites in English waters in the 21st century.

Amanda Bowens and Brandon Mason
'Forgotten wrecks of the First World War; raising awareness and public involvement'

Approximately 1,000 First World War shipwrecks lie off the south coast of England, though they are largely unknown to the general public. Historic records relating to them exist in a number of online and physical collections and archives. Artefacts recovered from them lie in public and private collections around the country and the remains of the vessels themselves are deteriorating on the seabed through natural processes and human activity. The First World War centenary has provided the impetus, not least through the provision of funding, for projects to address research agenda priorities in this area. The Maritime Archaeology Trust's Forgotten Wrecks project aims to bring this fragmented and dispersed material into a single virtual online collection that can be accessed and studied by all. As a Heritage Lottery

Funded project, public participation is fundamental, with volunteers researching in public archives and online, helping to record sites and recovered artefacts, under water and on the foreshore and helping to raise the profile of the resource amongst broad audiences.

Innovative site recording techniques are enabling us to record and present underwater sites in new ways, creating opportunities for more people to virtually visit, explore and study these underwater sites. Low-cost 3D imaging has enabled the acquisition of much higher resolution data and greater coverage, which is enabling more detailed post-fieldwork analysis, opening up new areas of research and contributing to preservation by record. The resulting visualisations provide evocative imagery that brings home the impact of the events that led to loss of vessels and people, as well as highlighting processes that continue to transform each site.

11.30 **David Parham** (Bournemouth University)
'The Swash Channel, Dorset, 17th-century wreck'

In 2005 a large wooden wreck was discovered in the approaches to Poole Harbour by Poole Harbour Commissioners and Wessex Archaeology. Subsequent investigations by Bournemouth University revealed the character of the site, a large, probably Dutch, merchant vessel engaged in long distance trade in the second quarter of the 17th century, the extent of the remains, almost the complete port side and the risks that it faced from natural erosion of the site and colonisation by marine organisms that were rapidly degrading the structure.
The presentation will present the subsequent work undertaken by Bournemouth University and Heritage England to mitigate this destruction. This has involved the excavation and recovery of those areas of the site at risk, the reburial of the remainder, the subsequent recording and analysis of the material recovered. Some of the preliminary findings will be presented, with discussion of the successes, but also of the trials and tribulations of undertaking such a project in the 21st century.

David A. Sear (Geography and Environment, University of Southampton)
'Geoarchaeology across the terrestrial:marine transition: results of the research at Dunwich 2008-2015'

The action of largely storm-driven coastal processes on soft cliff shorelines has resulted over time in the loss of settlements throughout the southern North Sea basin. Whilst understanding their history sheds light on long-term coastal evolution, such sites illuminate debates around the role of environmental processes in the history of maritime communities. In addition, coastal sites also represent a contested archaeological resource. However, since many soft cliff sites are also associated with dynamic turbid shallow coastal environments, accessing the archaeology has to date remained difficult.

In this talk I will present a summary of the research undertaken at Dunwich, the largest of the North Sea settlements lost to coastal processes. The site is large (2.7km^2), positioned across the terrestrial:coastal interface and located in shallow, turbid waters with a dynamic seabed. To map and investigate the site has required the use of a range of techniques including the first trial of DIDSON imaging sonar for the visualisation of submerged ruins in zero-visibility

conditions. Together, these techniques have resulted in the most accurate mapping of the site and a better understanding of the archaeology of a large Saxon/later medieval town lost to coastal processes. In the coastal zone, large structures are preserved close to their original locations, providing validation of early mapping of the site and the prospect of reconstructing aspects of the urban geography. In contrast, smaller structural remains are dispersed by tidal currents, thus loosing contextual information. On shore, cliff sections, geoacoustic surveys and investigations of the marsh sediments are combined with historical data to create a richer understanding of the coastal community response to storm-driven coastal processes and creation of a unique long-term dataset of coastline change.

14.30 **Dominic Tweddle** (Director-General), **Andrew Baines** (Head of Historic Ships) and **Matthew Sheldon** (Director of Heritage) *'Work of the National Museum of the Royal Navy, Portsmouth'*

The National Museum of the Royal Navy cares for the National Collection of Historic Naval Vessels. We have seven major ships: HMS *Victory*, HMS *Trincomalee*, HMS *Holland 1*, HMS *Caroline*, HM Monitor M33; HMS *Alliance* and LCT 7074.In addition, we have five smaller vessels. Hitherto, historic ships, with some honourable exceptions, have tended to be treated as ship-building projects. NMRN is pioneering a new approach, treating our ships as archaeological objects, with conservation of the historic fabric as our primary aim. The team from the museum will explore how this kind of approach is being carried into practice on HMS *Victory*, M33 and HMS *Caroline*, and what results from it.

16.30 **Fraser Sturt** (Centre for Maritime Archaeology, University of Southampton)
'The isles of the British Isles: reconstructing sea-level changes'

The geography of North-West Europe has changed dramatically over the course of human history, with Britain moving from a peninsula of Europe to an island and back again on multiple occasions. These changes in palaeogeography not only redefined the shape of land above the high-water mark, but also altered the behaviour of our connecting seaways. In this paper I will present results from recent work carried out in conjunction with Dr Duncan Garrow as part of the 'Steppingstones to the Neolithic' project. As part of this research we have been modelling the changing nature of Europe and its seas, whilst also excavating in the Channel Islands, Isles of Scilly and Outer Hebrides. The results of this combined research have helped us to re-evaluate the archaeological record of these landmasses, and with this more broadly consider how we understand prehistoric maritime activity and connectivity. It will be demonstrated that understanding ships, shorelines and society go hand in hand.

Kieran Westley (National Oceanographic Centre, University of Southampton)
'Submerged archaeology: investigation in the north of Ireland'

The human occupation of Ireland begins in the early Mesolithic period; between *c.* 10,000-9,000 years ago. At that time, relative sea-level around the island of Ireland was rapidly changing and doing so in a spatially and temporally complex manner. This was a legacy of isostatic adjustment of the earth's crust stemming from removal of a massive ice sheet which covered the island during the Last Ice Age. Consequently, coastal areas favored by its earliest

inhabitants are now submerged by anywhere between 5 to 40 metres below present sea-level depending on local patterns of relative sea-level change.

This paper will outline the current state of research being undertaken in Ireland firstly to reconstruct these submerged archaeological landscapes and secondly to identify prehistoric archaeological material on the seabed. The first approach takes advantage of high-resolution marine geophysical datasets, principally multibeam echo-sounder and sub-bottom profiler data sets, acquired within the past decade. The second strand, while aided by such data, also relies on survey and test excavation by diving archaeologists.

The geophysical data have been examined for evidence of past sea-level change and formerly sub-aerial landscapes and, in conjunction with extant sea-level models, have been used to produce time-stepped palaeo-geographic reconstructions. These in turn have aided the identification of submerged palaeo-landscape features including possible wave-cut rocky shorelines and layers of peat buried in the intertidal and subtidal zones. The diving investigations have also identified fragments of preserved landscape, again in the form of submerged peat, and for the first time in an Irish context, conducted test excavation of a submerged Mesolithic site, in the process locating archaeological evidence buried in the seabed. Although this work is still largely in its infancy, especially when compared to other parts of NW Europe and the British Isles, it is hoped that it will eventually obtain new archaeological and palaeo-environmental evidence that can shed light on Ireland's earliest colonists and their interaction with changing landscapes of the early Holocene.

Sunday 18 October

9.30 *'The Mary Rose: not just a project of the 1970s and 1980s'*

Alexzandra Hildred (Curator of Ordnance and Human Remains, Mary Rose Trust)
'Mary Rose research in the 21st century'

The legacy of the excavation of the *Mary Rose* includes not only the structure of the vessel, but the sea-bed within which it lay, the thousands of artefacts recovered and the remains of the crew. The ship was a container, a home, a work-place and a fighting machine – each aspect with its own suite of objects. The vessel and its contents require identification, recording, conserving, researching, understanding and – in some instances – replicating.

Whilst immediate considerations such as recording and conservation were undertaken as a matter of urgency following recovery in 1982, further site investigation, monitoring, excavation and ongoing conservation continue. Research projects, often collaborations between a number of partners, are pivotal to researching the objects and broader themes of life in the 16th century. The precise date of burial of the hull and contents offer the possibility of testing chemical methods of dating.

This paper will outline some of the new initiatives being developed, including remote excavation; analysis of human and faunal remains; recreation of the Battle of the Solent; and the role of the ship's dog.

Christopher Dobbs (Head of Interpretation and Maritime Archaeology, Mary Rose Trust)
'Presenting Maritime Archaeology in the 21st Century'

An end-product of archaeological excavation is the presentation of the results to the public. This paper will outline some of the ways the Mary Rose Trust has chosen to do this, both through experimental archaeology and through the displays in the new museum.

Creating a new museum for the *Mary Rose* gave a great opportunity to show the results of a maritime archaeological excavation in a new way – and in a way relevant to a 21st-century audience. We have tried to present context, we have tried to convey a spirit of place, we have tried to provide a narrative. And for a wide audience, we need to present archaeology in a number of ways to suit different learning styles.

11.30 **Peter Clark** (Canterbury Archaeological Trust)
'The Dover Bronze Age boat: new developments'

Since the presentation of the conserved Dover Bronze Age boat to the public in its award-winning gallery in Dover Museum in 1999 and the publication of the results of the analysis of the find in 2004, the boat has remained the focus of continuing study and public outreach.

This paper will review developments over the last ten years, focusing in particular on new technical insights into the boat itself. The Dover boat lay at the heart of a major international project 'BOAT 1550 BC' between 2012 and 2014, its iconic status as a symbol of maritime connections in prehistory forming the lynchpin in the project's review of Transmanche connections in the 2nd millennium BC.

As part of the project, the original boat timbers were re-examined and re-assessed by the late Ole Crumlin-Pedersen and Richard Darrah, with a view to enhancing our understanding of the original hull form and to inform the creation of a half-scale hypothetical reconstruction, which was successfully in launched in September 2013.

Though the technical report on the re-assessment is still in preparation, this paper will summarise the key findings and review the lessons learnt from building and working with the reconstruction. The relevance of using half-scale models of ancient boats remains a subject of much debate, and the pros and cons of this approach will be reviewed in the light of recent experience.

Iona Robinson (Cambridge Archaeological Unit)
***'**The Must Farm log-boats'*

Between 2009 and 2012, the Cambridge Archaeological Unit (CAU) undertook three phases of archaeological investigation of a later prehistoric freshwater palaeochannel at the Must Farm Quarry, Whittlesey, Peterborough. The excavations revealed the richness of the archaeological material preserved in the freshwater channel, including, most notably, a group of nine exceptionally well-preserved prehistoric logboats. The Must Farm palaeochannel's history spanned the period from the Middle Bronze Age to the Late Iron Age; the earliest silts formed around 1600 BC and the cumulative sedimentation of the slow-flowing river led to

the channel becoming entirely choked by the end of the 1st millennium BC. This talk introduces the Must Farm logboats individually and presents them in the context of the channel's history, exploring their varied forms in relation to their stratigraphic spread – a spread which indicates that their deposition in this short stretch of river took place over centuries from the Middle Bronze Age to the Early Iron Age.

14.30 **Toby Jones** (Newport Medieval Ship Project, Newport Museum and Art Gallery, Wales)
'The Newport Medieval Ship: the construction and sailing of a 15th-century merchant vessel in western Europe'

This paper presents a summary of recent research into the economic and cultural world in which the Newport Medieval Ship was built and operated. Digital modelling of the original hull form has revealed the dimensions, capacity, and performance of the vessel. Examination of the individual ship timbers and overall hull form have led to a greater understanding of shipbuilding, construction sequence, and woodland resource management in the late medieval period. Archaeological research has helped to illuminate the probable Basque Country origin of the vessel and revealed details about its use-life. Direct evidence of trade between the Iberian Peninsula and the British Isles has been uncovered, along with clues relating to the origin and size of the crew and general aspects of daily-life on board the ship. In addition, the online publication of a comprehensive digital archive has enabled unprecedented access to the wealth of detailed archaeological data produced by the project.

Gustav Milne (CITiZAN: Coastal and Intertidal Zone Archaeological Network)
'Nautical archaeology in the community'

The "Thames Discovery Programme" is a community-based archaeology project with a central focus on the Thames foreshore in central London. It was initially supported by the Heritage Lottery Fund, but is now hosted by Museum of London Archaeology, and involves some 400 members engaged in intertidal zone archaeology. The dating of the sites exposed by the aggressive tidal scour of the Thames range from the Mesolithic to the London Blitz. This talk, however, will summarise features of interest to nautical archaeologists: there are a large number of abandoned boats and barges representing a wide range of vessel types (e.g. Brentford); remains of shipbuilding slips (e.g. at Deptford and at Millwall, for the SS *Great Eastern*), as well as shipbreaking sites (e.g. at Charlton, Rotherhithe and Bermondsey) where the discarded remains of wooden vessels from the Royal Navy (including HMS *Wellington*, a 131-gun first-rate) and fragments of gun carriages have been recorded.

Lauren Tidbury (CITiZAN Archaeologist for Training)
'CITiZAN - community archaeology on the coast'

The coast of England is under constant threat from wind, waves and winter storms. These wreak havoc on England's varied coastal and intertidal heritage, not only exposing sites but washing them away before they are ever seen. The Coastal and Intertidal Zone Archaeological Network (CITiZAN) has been set up in response to these dynamic threats to our island heritage. We are actively promoting site recording and long-term monitoring programmes led by our active volunteers. This talk will summarise the work being carried out

in the South West; along this varied coastline a range of sites from prehistoric landscapes to WWII coastal defences are being exposed and lost to the sea. This presentation will demonstrate how we are responding to this threat to our coastal heritage, recording these sites and monitoring them, using a combination of training and outreach activities and engaging members of the public from dog walkers to existing archaeological societies.