

Maritime and Intertidal Archaeology – update to research agenda

Introduction

The seas around the Welsh coastline contain an immeasurable wealth of archaeological and historical artefacts. This includes not only the remains of sunken or beached vessels, their cargo and armaments, but also features associated with the management of the coastline, such as harbour installations; the exploitation of the intertidal zone, such as fish weirs; and submerged landscapes, formerly dry land, usually dating from early prehistoric periods. Maritime archaeology represents the same essential stuff of the historic environment as does the terrestrial, yielding information with a different but complementary slant about our past. Given that our nation was formed by its island status, and our settlement patterns, transport and supply, technology, communications and politics, attitudes and eccentricities were fashioned by our sea borders, our maritime archaeology must have an importance equal to terrestrial archaeology.

Since the production of the original research agenda for this topic, there has been substantial progress made in a number of key areas; both answering questions posed by the research agenda and, inevitably, posing new ones. This paper attempts to highlight some of the key advances, and suggests future channels for exploration.

Structure of this review

The first part of this review will briefly discuss developments which have taken place under key themes identified in the original research agenda documentation. Suggestions are also made for future research agenda items, building on the substantial progress which has already been made.

The second part of the document re-states those research agenda items against which less significant progress has been made.

The final part re-states the original bibliography, and includes new publications of significance.

Research agenda items against which substantial progress has been made or is underway

Resource Quantification

1a. Maritime database – RCAHMMW

In 2004, when the original topic paper for maritime archaeology was produced, the RCAHMMW had begun the compilation maritime of the record. It had been in contact with sister bodies in England and Scotland to access and learn from their experience. It had also been in liaison with shipwreck researchers in Wales (Mike Bowyer) and elsewhere to access information about sources and explore the possibility of gaining access to their research. The acquisition of a research database containing some 4,000 documentary references to shipping losses was one of the results of these initial steps.

The appointment of a full-time Maritime Officer in April 2007 allowed a concentrated programme of work to be taken forward. The programme began with stocktake of the record as it then stood; key sources to be accessed to begin the enhancement process, and the key drivers in offshore development which would determine priority spatial areas of the record for enhancement. The stocktake produced three internal documents shared with Cadw– Review of Maritime Archaeology in Wales and Maritime Recording within the NMRW; an IT Strategy and Data Structure Specification to develop a portable database mirroring the NMRW with additional field for maritime recording; and a 5-year Maritime Project Plan.

The Project Plan identified 53 priority tasks, amongst which was to establish a reciprocal data-sharing agreement with the UK Hydrographic Office to facilitate the ground-truthing of the NMRW to the sites known on the seabed. Liaison with colleagues in England, Isle of Man and Ireland has established spatial extents as guides for data gathering and exchange. The Project Plan has been rolling forward through a major programme of data correlation (UKHO and NMRW) and compiling in conjunction with archive visits. The total number of records for shipwreck and aircraft downed at sea is now 5042. A small pilot of Seascapes Characterisation utilising historic digital charts sourced from the UKHO has also been undertaken as part of concept for the development of GIS layers required for WAG marine spatial planning (e.g. archaeological risk mapping).

The RCAHMMW is also developing its strategy for the archiving of marine geophysics as works towards Trusted Digital Repository Status, fully mindful of the endeavours of Cadw's other funded programmes (e.g. marine geophysics generated as a result of the monitoring of the Designated Wreck Sites by the Protection of Wrecks Act (PWA) Contractor, and the Coal and Slate Wreck investigations being taken forward by the PWA Contractor and the NAS).

1b. Research agenda priority

The continued improvement of the maritime database, and its representation of all forms of maritime archaeological features.

The maritime database should continue to expand, and to collect and curate results of fieldwork done by others. Of particular interest is the collection and interpretation of data collected by other bodies, especially since underwater archaeological survey is comparatively rare. The maritime database also fulfils an important function in providing information to other archaeological organisations for the purposes of development control and heritage management.

However, there are relatively few practitioners in Wales who have specialist knowledge of underwater archaeology, and there is a need for professional training to build on the Maritime Workshop hosted by the RCAHMMW in October 2008 and to encourage collaborative research projects between organisation within key specialism and capabilities (e.g. marine geophysics) to ground truth the archaeological potential areas of seabed which begin to be identified through NMRW enhancement.

Resource Management

2a West Coast Paleolandscapes Project

The original maritime research agenda identified the need for mapping submerged prehistoric land surfaces, particularly with regard to the Mesolithic coastline of Wales.

Following the innovative and ambitious 'mapping doggerland' project, the west-coast paleolandscapes project has recently begun to examine data from commercial companies to map the underwater landscapes between Wales and England. The project undertaken by the University of Birmingham, the Welsh Trusts (DAT lead) and the RCAHMMW has gathered HER and NMR data to provide a context of evidence for the presence and activities of early ancestors across Wales in response to period of glacial amelioration. The University of Birmingham has reviewed large quantities of seabed geotechnical data (i.e. sub bottom profiling data) data to trace geological forms and deposits which confirm the land bridge which once existed between Wales, Ireland, the Isle of Man and England and the river systems which once flowed across it. Of particular importance are the areas of offshore peat deposits which have the potential to reveal a great deal of palaeoenvironmental information. These would be regarded as having significance in terms of developing appropriate mitigation measures in advance of offshore development.

2b Research agenda priority

Understanding and mapping the changing landscapes, and identifying areas of archaeological sensitivity and potential.

Building on the work already carried out, the next step is to concentrate on the interpretation and dissemination of information from the west coast paleo-landscapes project, and carry out further investigation into the submerged landscapes of the Welsh coast. In particular, the 'ground truthing' of theoretical maps of the Welsh submerged coastline, through

research projects which develop the methodologies employed by the University of Bangor in its assessment of the Menai Strait or Seabed Prehistory (Wessex Archaeology) to focus on small areas of seabed.

Also to ensure that, through developing appropriate mitigation measures in response to offshore development control, opportunities are taken to allow the seabed geotechnical assessments undertaken for engineering purposes to contribute to developing fuller understanding. Offshore developers should also be encouraged and recognised for the contribution to archaeological knowledge that they are making (e.g. BMAPA Protocol for Reporting Underwater Finds and the forthcoming Crown Estate Offshore Renewables Protocol)

Resource identification and survey

3a Shipwrecks – location and under-representation

The fact that there are only six designated wrecks within Welsh waters is a dramatic under-representation of the resource and its importance in Welsh archaeology. However the pro-active identification of suitable candidates for designation relies on desk-based research and survey – both underwater and in the intertidal areas. Whilst the scheduling programme has marched on apace, looking systematically at different classes of monuments and different time-periods, the programme of underwater survey has lagged behind its terrestrial neighbour. It is recognised that, although the EH ALSF has funded research that has reviewed the criteria for assessing the archaeological and historic importance of shipwrecks, the non-statutory criteria used assessing wreck sites from designation for the Protection of Wrecks Act 1973 possibly remain the most recognised. These documents and schema have yet to be reviewed against Cadw's recently published 'Conservation Principles, Policies and Guidance 2009'.

However, progress is being made. The research agenda priorities of 'coastal trade' and 'vessels' priorities are being addressed through innovative utilisation of PWA contractor Wessex Archaeology to undertake more proactive desk-based assessment of two aspects of maritime trade of particular importance to Wales – coal and slate. Desk-based assessments of historical information for wrecks known to have been carrying these cargos at time of loss and the identification of a selection of the sites confirmed as present on the seabed have led to geophysical survey to ascertain present character and extent. The programme of marine geophysics has 4 new coal wrecks and 6 relating to the slate trade, along with many anomalies which may be of archaeological interest. A marine geophysical survey of a navigation hazard close to the one of the centres of the slate trade, has identified three new wrecks, along with 60 anomalies of possible archaeological interest.

The Nautical Archaeological Society are also working with this data, looking for wreck sites which may be appropriate for diver training and/or

suitable for groups to research and survey under the Adopt-A-Wreck scheme.

The RCAHMMW has provided downloads of wreck data to the NAS to assist with this latter initiative. The RCAHMMW is also contributing to this prioritisation of the study of vessels engaged in the coal and slate trade through the intertidal surveys it has begun to undertake on targets in the intertidal identified through its aerial photographic flying programmes (e.g. 3 slate schooners at Ynyslas and wreck of possible ketch barge engaged in coal trade at Sully Island).

3b Research agenda priority

Increasing numbers of designated/scheduled wrecks, making the protected resource more representative of the resource as a whole.

A key priority now is to continue pro-active survey, concentrating on further known shipping hazards and areas whilst also concentrating efforts on individual sites to assess suitability for designation. Recreational divers and volunteers will play a large role in this, and supporting them through continued support to the NAS will assist in achieving this aim.

The archaeological potential of the resource of aircraft (particularly military relating to the World Wars) downed at sea is still largely unknown. It has begun to be tackled by the RCAHMMW through its monument recording programme. As with shipwrecks, it is recognised that there are individuals who have already accessed a great deal of the primary resource materials. Again, there is great potential to involve volunteers in research and recording.

Several of the studies funded EH ALSF have potential to assist the formulation of Welsh approach to mapping the seabed and identifying areas of archaeological potential. Hence a review of the more relevant project reports will be undertaken in the near future (accessible via the Archaeological Data Service WWW site, see bibliography).

4a Typology of Welsh vessels

The production of the desk-based assessment of coal and slate wrecks provides a useful starting point for attempting to identifying a typology of vessels built and utilised in Wales, particularly in the post-Medieval period. Shipbuilding was a major facet of life in coastal Wales, however smaller vernacular vessels (e.g. fishing vessels, sloops, barges, ketches, etc) have a tendency to leave behind no drawn plans and are less likely to be represented as identified wreck sites on the seabed.

The maritime record of the NMRW is currently dominated by post medieval shipwreck information (e.g. that which is most easily accessible

in documentary form), and it is recognised future programmes of work should target sources that may shed light on medieval and early periods.

However, the forthcoming RCAHMMW publication 'Reclaiming History from the Sea: Maritime Archaeology Around Wales' includes at its core a chronology of ship types and their development from earliest time. The letters inviting leading researchers from around the UK to contribute to the volume have recently been sent (August 2010). It is likely that the volume will appear in 2012.

MORWOL (Institute of Welsh Maritime Historical Studies) is a new initiative by regular contributors to the *Maritime Wales* publication to promote maritime history, its research and the accessioning of maritime related artefacts/documents to museum collections/archives (e.g. along the lines of the Women's Archive of Wales, <http://www.womensarchivewales.org/>). It presents an opportunity for the archaeological community to engage with researchers who are continuing in the spirit of well-known maritime authors such as Aled Eames and Lewis Lloyd to publish material relating to seafaring and maritime communities.

4b Research agenda priority

Developing understanding of the particularity of vessels designed for specific environments or industries, and assessing known post-medieval wrecks and hulks for their potential to inform about technical advances in shipping.

Studies funded EH ALSF have potential to assist the formulation of Welsh approach to developing typologies and assessing site significance. For example, in 2008 Wessex Archaeology undertook a review of monument class descriptions and principles for selecting archaeological and historical significant wrecks within aggregate dredging areas as a means of determining special mitigation measures such as exclusion zones, or recording and recovery (Wessex Archaeology, 2008, project number 5383). Whilst no systematic work has yet taken place, improvements to the NMRW maritime record together with new survey information are helping to provide a starting point. The methodologies explored by EH ALSF projects have the potential to assist the development of the Welsh approach.

The numerous known wrecks, along with known foreshore and intertidal hulks, provide a massive reservoir of potential information. It is likely that much of the survey of local vessels will be undertaken by local volunteers – both divers and non-divers – and Cadw will continue to be indebted to them. It is anticipated that a systematic review of the RCAHMMW aerial photographic collections and the continued coastal flying at times of lowest tides by the RCAHMMW aerial photographer will contribute additional targets for intertidal hulk surveys to the NAS to take forward as training sites.

5a Historic ports and harbours.

The Cadw-funded 'ports and harbours project' was carried out by the archaeological trusts in an attempt to quantify and identify both discrete sites and wider areas of archaeological potential within major ports and harbours. The reports generally collated available information, bringing together references to archives held by others as well as information gained from previous coastal surveys. Limited fieldwork was undertaken. The Milford Haven Waterway report produced a series of GIS tables highlighting areas of archaeological importance, and these were supplied to the harbour authority as well as other interested parties. The information contained is useful for management purposes, particularly with regard to planning future operations such as dredging and development.

5b Research agenda priority

To continue the study to cover all major ports and harbours in Wales, and to examine not only at a landscape, extensive scale, but also at a more intensive, site-specific scale in areas most likely to be at risk from development or natural processes.

Outreach, awareness-raising and training

6a The Nautical Archaeological Society, Arfordir and the role of volunteers

Underwater survey and data collection is very dependent on the efforts of sports divers with an interest in historical sites. Many of these have received training from the Nautical Archaeological Society, which is the major body providing training for interested amateurs in the field of maritime archaeology. Cadw currently provides support to the NAS, to assist in running training courses in Wales and to encourage members to carry out active survey and take part in schemes like 'Adopt a Wreck'.

The 'Arfordir' coastal heritage project encourages groups and individuals to take part in monitoring their own stretches of coastline, looking for archaeological and historic features. The volunteers receive training and support through the Welsh Archaeological Trusts, supplied via grant-aid from Cadw. The 'Arfordir' project began in 2009, and is now taking place across the majority of the Welsh coastline.

Both of these initiatives rely on harnessing the goodwill and enthusiasm of interested volunteers, and, in turn, we must ensure that the programmes deliver something for them as well as providing information back to heritage bodies.

6b Research agenda priority

To better understand changes in the maritime archaeological resource by encouraging appropriately trained volunteers to participate in maritime

archaeology, and to develop closer links between terrestrial, inter-tidal and underwater projects.

The 'Arfordir' project and the training courses provided by the NAS represent a significant opportunity to 'link up' different volunteer groups. 'Arfordir' has amongst its aim the express intention of monitoring change on coastal sites, and repeated dives on submerged wrecks would provide information about their changing condition also. Information about change is clearly information which can be used for management purposes, and to inform future courses of action at sites deemed to be particularly important or interesting.

Agenda items against which less substantial progress has been made

- Study of Estuaries as major access points for shipping and settlement
The work of the Severn Levels Research Group has demonstrated the archaeological potential of the ever changing dynamic tidal estuaries. We might seek to extend the work undertaken during the Cadw funded Coastal Survey of Wales to more intensive studies of selected estuaries - The Dee and Milford Haven at the larger scale and the smaller Dyfi, and Taf/Cywin might be considered.
- Welsh Lakes
Studies of lakes in Scotland and Ireland demonstrate the potential of lakes for understanding of prehistoric and later settlement and exploitation. There has been some intensive site based work – such as at Llangors, Llyn Cerrig Bach and Llyn Fawr and Llyn Padarn and Peris but lacustrine archaeology of Wales may be considered under studied. An initial feasibility study designed to survey and explore the use of these inland waters might be productive.
- Historic Bridging Points and Wharfage
The recent discovery of a well preserved medieval masonry wharf at Skenfrith in the riverside silts adjacent to the castle and of ancient bridges at Caldicot and Chepstow adds another dimension to our understanding of how settlement worked with its hinterland. Such discoveries are probably always going to be chance finds, but opportunities during development in likely positions should be grasped.

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Other Research Frameworks with Strong Maritime Elements:

Maritime and Marine Historic Environment Research Framework for England

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Scottish Archaeological Research Framework (SCARF)

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