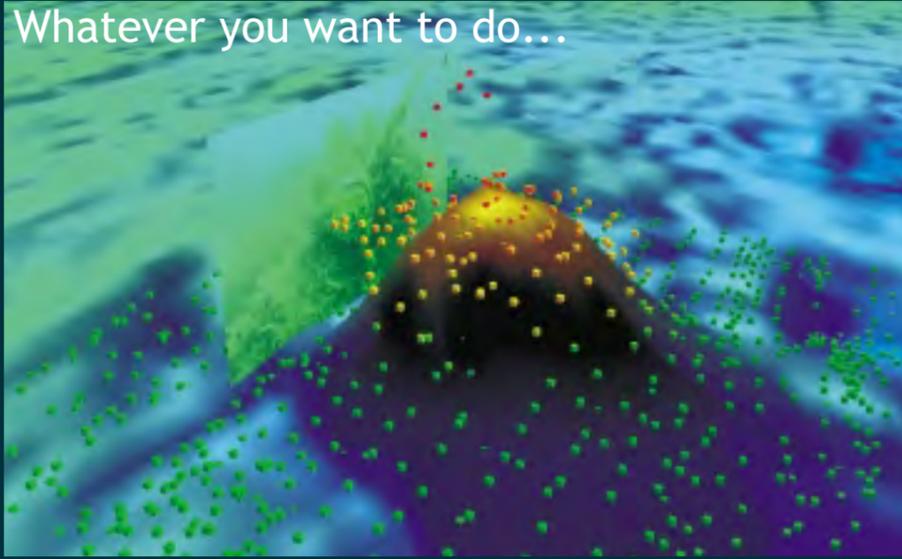


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The Archaeologist has pursued a number of important themes over the years, but this is the first time one of our special interest groups has taken up the challenge of filling a whole issue. Maritime archaeology at first seemed too specialised a topic, but it was soon evident that the scale of work in progress was competing with archaeology elsewhere, and that the range of responsibilities (surveys, resource management, excavation, conservation, use of technology, inclusion of amateurs, maintaining archives, publication and research) closely parallels what is happening on land (and is developing much faster).

So, thanks to IFA's Maritime Affairs Group, and in particular to its Chair, Dave Parham, we get a glimpse into the problems and exciting potentials of archaeology under water. We see how planning guidance is being adapted for this environment, a publication backlog is being brought up to speed, research frameworks and environmental assessments are being designed afresh, and the roles of different organisations are contributing to a whole. These organisations include amateur diving groups, national heritage organisations, MoD, the Port of London, local authorities, the aggregates industry, universities and contracting archaeological organisations. We are also reminded of the wealth of data the seas protect. From times when Britain was physically joined to the rest of Europe to the battlefields of the twentieth century there is information we can gain from no other source.

Back on land, IFA has been renewing its efforts to achieve better pay and conditions for all archaeologists, and in particular to gain recognition for those who form the backbone of our profession, the digging teams. Our AGM (p 6-7) was devoted to moving the debate forward, Peter Hinton's article on pp 8-10 reports on potential improvements to minimum pay recommendations, and we are delighted to report there was a successful launch of a Diggers' Forum on 16 October. We are confident that, if ever we did forget the interests of this group, there will be powerful reminders.

Other important reminders – the IFA website, updated but out of action for technical reasons throughout the summer, is back, and is being used to post more news, conference papers, online publications and background information than ever before. Do look at it regularly, and send material you think would interest other members to admin@archaeologists.net. And finally, don't forget to put the IFA conference (Winchester 22-24 March 2005) in your diaries. It's a full and exciting programme, and we look forward to seeing many of you there.



Alison Taylor
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Notes to contributors

Themes and deadlines

Winter: The Archaeology of Buildings
deadline: **15 December**

Spring: Prehistoric Britain
deadline: **1 March 2005**

Summer: Working in historic towns
deadline: **1 June 2005**

Contributions and letter/emails are always welcome. Short articles (c. 1000 words) are preferred. They should be sent as an email attachment, which must include captions and credits for illustrations. The editor will edit and shorten if necessary. Illustrations are very important. These are best supplied as originals or on CD, as TIFFs or EPS, not JPGs, scanned at a minimum of 300dpi at the size they are expected to appear. More detailed *Notes for contributors* for each issue are available from the editor.

EDITED by Alison Taylor, IFA, SHES, University of Reading, Whitenights, PO Box 227, READING RG6 6AB

DESIGNED and TYPESET by Sue Cawood

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View from the Chair

David Jennings

'By 2010, we aim to be a Chartered Institute, recognised as the leading professional body for archaeologists. We will have achieved greater recognition and respect in society, and the financial, social and intellectual rewards of being an archaeologist will be considerably enhanced.'

This paragraph encapsulates core objectives of our Strategic Plan. It was drawn up in 2000 and established a programme that set our agenda until 2010. Taking stock in 2004, we can report that on a wide range of fronts we are on-track to achieve our aspirations: membership levels continue to rise; the number of RAOs is growing; our advocacy role for the sector has increased; and we have developed a better understanding of the 'corridors of power' and are better understood within them.

Campaigning mode

The journey to achieve our aspirations for 2010 is arduous, but we should not be charmed into the negative view, too frequently expressed in our sector, that there is no progress. Rather we need to openly acknowledge and understand the stage of development we occupy. Unlike long-established professions, we are at an incipient stage. IFA is still in campaigning mode, where fundamental goals need to be reached. Unlike the Institution of Mechanical Engineers, we are not a Brunel designed steamship, rather more like an Athenian trireme – in order to cut through the waters, everybody needs to pull on the oars.

Making accreditation count

And we have to do more to demonstrate that we provide real benefits for our members and the profession. Core to this is maintenance of standards: we already have a valuable behind-the-scenes role

in checking abuses but in today's competitive world we need more clout than this. This autumn we reviewed and adjusted our procedures for dealing with complaints against RAOs and, with the increased flexibility this review gave us, we are actively investigating potential disciplinary matters. This is not a pleasant thing to do, but is the only way self-regulation will work. It should also inspire confidence in IFA with national and other curatorial bodies, with whom we are discussing a more unified approach to accreditation.

Diggers' Forum

Pay and conditions for all archaeologists but especially those in junior positions are another cause where I want to direct attention this year. The success of this year's AGM debate (see pp 6, 7) shows we are going in the right direction, and formation of a new Diggers' Forum on 16 October, thanks to Council members Chris Clarke and Jez Taylor, will keep us on the right path. Peter Hinton's report on minimum pay recommendations (pp 9-10) helps inform the debate.

And to attain our objectives we need support from an increasing number of members. Our new Council plus members of staff are gearing up for a continuing recruitment drive, but imagine if every member could recruit one more person to the Institute – how very much closer we would be to achieving our targets. So no excuses – recruit a new member today!



David Jennings

FROM THE FINDS TRAY

New Boss at Historic Scotland

Having been criticised in their recent Quinquennial Review for their lack of openness and transparency, some people were surprised that the successor to Graham Munro as Chief Executive of Historic Scotland was announced without the post being advertised. Being part of the Scottish Executive rather than an NDPB like English Heritage, it appears that the Nolan rules didn't need to apply...

However, word is that the new man, John Graham, is a catch. Arriving from the post of Head of SEERAD, the agriculture and rural affairs department of the Scottish Executive, Graham is a big fish in the Scottish civil service. In his long career he has held several important positions including Head of the Planning Division and Head of Finance – both of which will come in handy in his new post.

The HS Quinquennial Review was critical of the agency, and we can anticipate vigorous sweeping from the new broom. Hopefully, it won't take him long to realise that chronic long-term underfunding is at the root of Historic Scotland's problems, and those of the historic environment in general. Coming from a strong financial background, Graham is reputed to be a tough negotiator. Armed with the growing evidence-base published on the Built Environment Forum Scotland website (www.befs.org.uk), he has enough ammunition to make a strong case. One of his first challenges will be to fund ten extra posts within HS to provide advice on Strategic Environmental Assessment - as well as extra resources to enable NGO stakeholders to play their part.

Robin Turner

Cultural Landscapes in the 21st Century

The University of Newcastle will hold the Forum UNESCO 10th International Seminar in April 2005. The conference will cover aspects of the cultural landscapes, including Museums and Heritage (Tangible and Intangible), Visual Culture, Identities and Communities, Tourism and Economics, Architecture, Education, and Management and Protection. The deadline for papers and posters is tight, so if you are interested, go to www.ncl.ac.uk/unescolandscapes.

Iraq's Cultural Heritage – Challenges and Opportunities

2 December, 6.30pm, the Gallery, 77 Cowcross Street, London EC1M 6EJ
Lamia al-Gailani Werr, an Iraqi born archaeologist, will talk on her recent experiences working for the Iraq Reconstruction and Development Council in Baghdad. This will be an opportunity to understand the difficulties the Iraq State Board of Antiquities have faced during the last few years, with suggestions for the way forward for the protection and management of Iraq's cultural heritage.

Admission (including wine and mince pies) £12.50 for members of ICOMOS-UK and of the British School of Archaeology in Iraq, £15 for non-members, £8 for students.
Contact: Rikke Osterlund, ICOMOS UK, 70 Cowcross Street, London EC1M 6EJ
Tel 020 7566 0031

A plea from Georgia (ex-USSR)

Like so many around the world, the museum at Nokalakevi, Georgia, home to artefacts excavated locally and dating back to the sixth century BC, was robbed and vandalised during a decade of war. Museum staff remain on duty, but can only take visitors around what survives if they bring their own torch! David Connolly visited the town this year and was appalled by what he found but heartened by how little it would take to restore a living museum, together with pride and possible tourism, to a hard-hit region. £1000 would buy a generator, pay for a year's worth of fuel, pay for the rewiring of the electrics, allow the windows and broken display cases to be replaced, open up rooms for community education and pay two staff wages for a year. Any extra money would enable the tourist rest house and bombed out dig house (including a research lab) to be restored. A special website has been set up with photographs, sound clips, links, information and appeal news. Please visit the website where you can make your donation via PayPal. http://www.bajr.org/Appeal/01_main.html. Bright ideas about possible grant-aid would also be useful.



The Byzantine City Walls into the city of Nokalakevi. Photograph: David Connolly

The Digger complains

A recent article in *The Digger* published anonymous complaints about an unnamed archaeological organisation, one of IFA's Registered Archaeological organisations, which it said carried out very poor archaeological work and endangered its staff by bad health and safety practices, and what was IFA going to do about it? Needless to say we want to act, starting with discussions with the curatorial organisations, but this is not much to go on. We are trying to encourage the complainant to come forward with specific problems that can be substantiated or at least inquired into further, but unless we can make contact and a formal complaint is made we feel helpless to act. We may have more to report in next *TA*, but in the meantime could all members bear in mind that it is an important part of our remit to follow complaints, but the normal laws of evidence and natural justice apply. Moans in a pub reported third-hand and without evidence don't take us far! Reasonable and significant complaints related to IFA's *Code of conduct*, with names, dates and description, and ideally with photographs, will be taken very seriously indeed, especially now RAO Committee have agreed more responsive procedures to cope with today's complex volatile archaeological world.



The museum at Nokalakevi (rear building) and the potential guest house (a traditional Mingrelian House). Photograph: David Connolly

ARCHAEOLOGICAL pay & conditions

IFA AGM 27 SEPTEMBER 2004

Last year the AGM looked at the ten key recommendations of the APPAG report on the state of British archaeology, and our speakers examined what progress had been made on each. Not surprisingly, Phil Carpenter's report on archaeological pay and conditions (and the lack of progress on measures to do something about these) raised considerable discussions and one bright idea from the floor: if a pay bargaining structure was necessary, why not get Prospect (for employees) and SCAUM (Standing Conference of Unit Managers) for the managers, with IFA as steward, to set up an effective mechanism that could work for all commercial archaeological organisations?

What we realised we needed was a 3-legged stool, that could support us all firmly if each leg was in place, but would collapse if one failed.

- we need agreed and enforceable high standards
- we need to have those standards insisted upon by curators and national bodies if organisations are to continue to win contracts ('quality-based barriers to entry')
- we need a formal process for negotiating pay and conditions to make sure we have the right happy and well qualified workforce.

If any of this fails, and if undercutting and underpaying continue, the whole thing collapsed. We therefore need the backing of curators, national bodies, managers and our Union, as well as the commitment of IFA itself.

Talks at the AGM reported back on what had happened so far and gave a snapshot of work in progress. Impassioned contributions from the floor demonstrated the need for real progress in the coming year on this crucial aspect of IFA's function.

Phil Carpenter,

Negotiations Officer for Prospect, described how Prospect was currently discussing with SCAUM an industry-wide pay agreement. Constructive meetings had been held, and its AGM had agreed that SCAUM should become involved in discussions with Prospect about such an agreement, as a way of improving pay and conditions in archaeology. Phil had drawn up a draft proposal and SCAUM are now working on suggested amendments.

Outlining his general aspirations, Phil emphasised that there was not an immediate solution: 'it is a tool to be used by people of good will to achieve a common objective, and we don't see it as producing other than incremental change. We can't move at the pace our members would like. Agreements have to reflect the achievable, and not the idealistic, options.' He also emphasised the importance of benchmarking, allowing comparison of jobs across participating organisations. The agreement could then move pay, terms and conditions forward in a consistent and progressive, but incremental, way.

Mike Dawson,

giving the employers' view on behalf of SCAUM, emphasised how much the employers represented on SCAUM supported the principle of industry-wide pay bargaining, none would support an initiative that threatened their commercial viability. Employers were keen to see the benefits for career development, staff retention and improved pay and conditions but are cautious in the face of predatory pricing and intense competition. Practicalities therefore had to be carefully worked out. Negotiations were in progress, and some announcement should be possible this winter.

Chris Clarke,

IFA Council member and founder member of the Diggers' Forum, excited lively debate with a dramatic picture of the tough life offered anyone



Deborah with bouquet (and whisky), after three years as IFA Chair

to work on scheduled monuments should either be an RAO or should satisfy an accreditation scheme with similar criteria. Other curators would also be encouraged to demand these standards be met. This enforcement of standards would provide one of the crucial legs of the three-legged stool.

Peter Hinton,

Director of IFA, spoke on IFA's role in linking standards and pay, a matter of concern for IFA from its earliest days. His text is reproduced in the following pages.

Full texts for Phil Carpenter's, Chris Clarke's and Peter Hinton's presentations are on the IFA website at www.archaeologists.net.

The AGM itself, chaired in style by our departing Chair, Deborah Porter, was over in a record seven minutes without contention. The following Council was voted in:

David Jennings (Hon Chair), Hester Cooper-Reade (Hon Secretary), Jack Stevenson (Hon Treasurer), Kayt Brown (Hon VC Personnel & Membership/Equal Opportunities Officer), David Gaimster (Hon VC Outreach), Roland Smith (Hon VC Standards), Joanna Bacon, Beverley Ballin-Smith, Stephen Briggs, Catherine Cavanagh, Chris Clarke, Patrick Clay, Mike Dawson, Veronica Fiorato, Clare King, Philip Mills, Geoff Morley, Dave Parham, Roy Stephenson, Jez Taylor and David Thackray.

The usual convivial party followed, at which speeches and presentations were made to members of Council who had each served with distinction for the maximum six years: Deborah Porter (Chair for three years and previously Hon Treasurer), Evelyn Baker, Bob Zeepvat and Jonathan Parkhouse. They have agreed they will still help on committees (especially Validation and RAO) where their experience is invaluable, and we don't really expect to lose sight of any of them.

Alison Taylor

starting a career in archaeology today. 'They are the foundations that any excavation is built upon, and they are the ones who do the hardest physical labour. Archaeology is a hard business, but diggers often suffer greater hardships than most due to their career position and inexperience'. Poor pay is the most critical issue, but uncertainties of the employment market and minimal holiday allowance, sick pay, redundancy contributions, company pension schemes, support for childcare and, most critically, training, add to the woes. 'Through all this the continual physical exertion takes its toll on the human body, resulting in few archaeologists escaping with arthritis, bad backs or dodgy knees'.

Chris's conclusion was that 'Diggers should be allowed to enter into an industry where there are prospects of decent pay, a valid career path, job security, and suitable training', and he urged support for the IFA Diggers Forum, and for more diggers to become involved with the industry within which they work.

David Miles,

Chief Archaeologist for English Heritage, fully endorsing all the efforts being made towards progress on pay and conditions, outlined some initiatives English Heritage were considering as a result of the Valletta Convention and its requirements for maintaining standards. It would become possible for example to insist that any organisation applying for English Heritage funds or

IFA pay & conditions

Peter Hinton

Pay and conditions have been a matter of concern for the IFA from its earliest days. Various working parties reported to Council in the 1980s and 1990s, resulting, amongst other things, in the demise of the system of making 'subsistence' payments to many excavators rather than employing them.

In 1996 Council adopted the report of the *Archaeological employment in Britain* working party (see Laura Schaaf's article in *TFA* 26). The report recommended that the IFA continue to take an

interest in employment matters and career structures, introduced Principle 5 ('the archaeologist shall recognise the aspirations of employees, colleagues and helpers with regard to all matters relating to employment...') and accompanying rules, and proposed a set of minimum salary recommendations.

The recommended minima were defined for responsibilities appropriate to the three grades of corporate membership, and expressed in terms of local authority pay scales

	local authority scale	SCP	base level 1994/5	base level 2004/5
Practitioner-level (PIFA) responsibilities	2-3	11-17	£9,906	£13,071
Associate-level (AIFA) responsibilities	4-5	18-25	£11,538	£15,225
Member-level (MIFA) responsibilities	6+	26+	£14,943	£19,713

Pay and conditions have stayed high on the agenda ever since, as is most notably seen from the joint IFA/IPMS (now Prospect) session at 2000 conference, lengthy discussion at the IFA Standards team meeting in April 2003, Council meetings in June 2003 and March 2004, the AGM debates in September 2003 and September 2004, and the response to the 2002 *Petition for change* organised by the *Digger*, which was never sent to the IFA but which we would still value receiving.

The IFA's evolving strategy has kept in line with its *Memorandum of Association*, which makes clear that the IFA has a role in recommending and promoting good practice including matters of employment. An alteration of the *Memorandum of Association* in 2002 ensured that the Institute really can lean on members and RAOs that do not comply with the IFA's expectations under Principle 5, including the salary recommendations. In parallel, the development of National Occupational Standards (NOS) was the first step in a process of defining the skills required for various roles in archaeology, identifying the qualifications and professional membership grades that show an archaeologist has those skills and is competent to undertake one of

those roles, and defining the appropriate levels of reward for packages of those roles (aka jobs). There are clearly opportunities to benchmark common packages of NOSs against similar jobs in other sectors and, with employers that take account of such things when deciding on salaries, make arguments for regarding,

The minimum pay recommendations have had some good effects since 1996. As the JIS annual survey shows, few jobs are now advertised below the appropriate rate (and the IFA investigates when it suspects that they are), and the *Profiling the profession* research of 1998 and 2003 shows that overall archaeological salaries have increased ahead of inflation – but average wages have done even better against inflation in the same period.

On the other hand, there are recognised problems with the recommendations (several were recognised at the time, but wisely disregarded in the interests of pragmatism).

- 1 With just three levels they do not reflect the range of skills and responsibilities, and are a rather blunt instrument

- 2 Where local authorities or public sector bodies are engaged in competitively won fieldwork, their finance and budgeting systems work in importantly different ways (sometime advantageously, often not) from independent organisations. They normally have grading systems, and correlations of required skill sets across an authority's workforce may be the primary determinant of pay, market forces being a secondary argument. The senior archaeologist in such an authority may have limited say in setting pay. This has been one of the arguments for linking the recommendations to local government pay settlement; the other being that there is a recognised system of inflationary increases. Some archaeologists have read this to mean that the IFA recommends the local authority pay system (and that there should therefore be separate settlements for different parts of the UK), but this misconception seems to confuse minimum with optimum: employers are allowed to pay more than the minimum. But there are no good reasons not to move away from the local government grades if a better system can be found

- 3 The recommendations only cover pay, and ignore other important benefits such as pensions and leave: these are major pluses to employees and significant costs to employers

- 4 The recommendations have always been much lower than they should be, but from inception the IFA has known the risks of having our bluff called as no employer wants to be the first to increase pay

These four problems call for (at least) four solutions

- 1 Use the NOSs to define a more sophisticated gradation of responsibilities – though this is not the most important priority
- 2 Undertake benchmarking of key posts with equivalents in other sectors, to see that arguments can be made for regradings where the skills of archaeologists have not been recognised and the wrong pay comparators

chosen: Prospect has already begun and will complete this work if an agreement on industry-wide bargaining can be reached with SCAUM. Secondly, see if there is an practical alternative to the local government scale (see the fourth solution)

- 3 We need to take account of other benefits as well as salary. A very simple model would be to assume that the minimum salaries included

- at least a 6% employer contribution towards pensions
- no more than an average 37.5 hour week, including lunch break
- annual leave of at least 20 days plus statutory holidays
- a sick leave allowance regime similar to that offered by local government

Any shortfall would increase the minimum salary requirement: for example an employer's superannuation contribution of 5% would mean a 1% increase in pay, or 20 days of annual leave *including* the eight bank holidays would mean an increase of 8/260 in pay – but any betterment of these terms would not mean a reduction in basic pay was permissible.

- 4 The IFA will consult on such revisions to its minimum pay recommendations, and if there is sufficient support would give plenty of notice of the introduction of any version of it to allow employers to plan well ahead. But we have to be realistic. If we raise our recommended minima without some other significant change archaeological landscape, we put our members and RAOs in a difficult and very risky position. The RAOs, for example, would have a much increased costs and risk losing work to unregistered competitors, making their staff redundant (presumably to work for unregulated organisations at below the recommended minima) – or they pull out of the RAO scheme leaving the IFA powerless to influence their pay practices. But there are two scenarios where all – or at least many – employers could move forward together.

The first opportunity is an industry-wide pay bargaining scheme. Prospect and the IFA have been exploring such a scheme for a few years now, and since last September have evolved with SCAUM a potential structure whereby SCAUM represents the employers, and Prospect represents the employees together with any other trade union with archaeologist members – that wants to be part of these arrangements. The IFA could act as an honest broker and facilitator in the negotiations, and would ensure that its minimum salary recommendations matched the negotiated agreement, thus binding its members and RAOs to the deal (providing meeting the minimum pay requirements becomes mandatory on RAOs, rather than a forceful recommendation that appends a health warning to those not complying). This is an important safeguard in the case of any SCAUM or other employer not recognising Prospect. Prospect has drafted a proposed pay bargaining structure based on tested formulae used in other industries: discussions continue within SCAUM about it and we look forward to progress, as this brings the promise of a coordinated, commercially viable programme of significant pay awards to bring archaeology in line with equivalent professions.

The second opportunity is to use benchmarks of quality to impose some barriers to entry to the profession. As reported by Christopher Young at the 2003 AGM, English Heritage is also considering ways of improving standards of work directly under its control, for example by stipulating that EH would only approve or fund work carried out by a MIFA, an RAO or by bodies or individuals who could demonstrate equivalent levels of skills and experience. Since then English Heritage, working on behalf of DCMS with Historic Scotland, Cadw and the Northern Ireland Environment and Heritage Service, has been fine-tuning the voluntary 'statement of principles' (based on the IFA *Code of conduct*) to move the UK

towards compliance with Article 3 of the Valletta Convention. Non-IFA members signing up to the statement of principles will not be bound by them and there is no obvious mechanism for enforcement. For this reason there is a good argument for requiring something stronger for commercial work (while ensuring that addressing the problems of the profession places no additional obstacles in the way of voluntary sector fieldwork, which should be encouraged), and so English Heritage is taking forward internally proposals for requiring appropriate accreditation (based on the principles of registration or IFA membership) for projects that it commissions or for which it advises on scheduled monument consent. We hope that guidance to planning authorities will extend this practice into the majority of commercial work. Only if there are clear commercial disadvantages in not being registered can RAOs cope with the kinds of cost increases that the profession needs, and the IFA must require.

Industry-wide pay bargaining and accreditation schemes are used in other industries and are lawful. And there may be help from the Office for Government Commerce, which has recently published the Gershon Efficiency Review. Government has accepted the need to reform the way it commissions work from the voluntary and community sector, and it may be that some of the Eganism of the report's recommendations can be exported to the archaeological world. None of the approaches set out here is perfect, and none of it is easy. If there are better ideas, we want to know. But the status quo is clearly unsatisfactory and cannot continue. It's not just archaeologists that say so – look at the recommendations on pay and conditions made by the All-Party Parliamentary Archaeology Group for the politicians' view.

Peter Hinton
Director of IFA



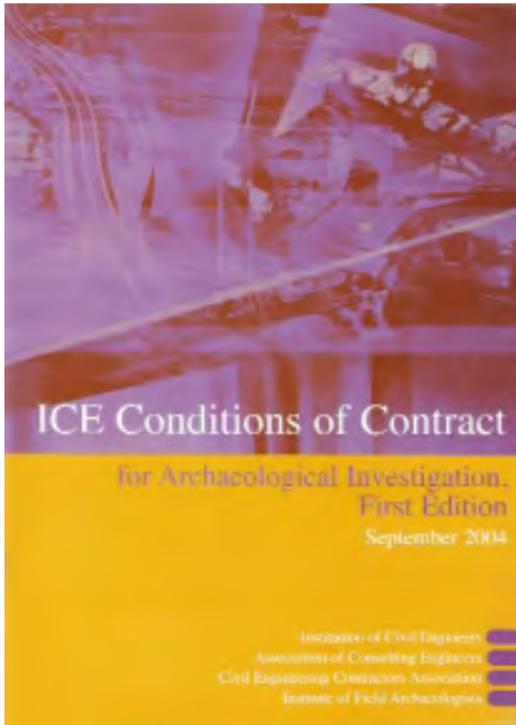
A NEW CONTRACT *for* ARCHAEOLOGICAL WORK

Peter Hinton

An invaluable new tool is now available for archaeological contractors and their clients. On 30 September the Institution of Civil Engineers (ICE) and the IFA launched the *Conditions of contract for archaeological investigation*. This document forms part of the family of contracts produced by ICE's publishing arm, and moves us on from the valuable but now dated Technical Paper by Tim Darvill and Meryl Atkins. Based on conditions of contract for ground investigations it was produced by a working party of the Conditions of Contract Joint Steering Committee (CCJSC – made up of representatives of ICE, the Civil Engineering Contractors Association, the Association of Consulting Engineers and legal advisors) and IFA representatives Mike Heaton, Dan Johnston and Taryn Nixon, with input from Peter Barker, Mike Dawson and Peter Hinton. The ICE has generously covered all the legal, secretarial and publishing costs of a two-year programme of drafting, and in return receives the revenues from sales. The ICE and IFA see this as the starting point of an important and valued working relationship.

The conditions of contract represented recognise the need for an updated standard form of contract in a sizeable market (we know that there was £67m of privately funded archaeology in England alone in 2000), and consolidate archaeologists' position as a core part of the construction process. They indicate to the construction sector that archaeologists play by the same rules as everyone else, and show that the profession (and its Institute) is growing up, establishing the professional status of archaeology and archaeologists in the eyes of other construction professionals.

There are many advantages to archaeologists in using this contract. Clients and their professional teams will recognise the format and will be assured



that it has been drafted by construction professionals, reducing the amount of negotiation and obviating the need for alterations to drafts. It is a tried and tested format that is safe and easy to use, and is based on 150 years of contract writing experience. It balances the risk between client and archaeologist (indeed it is relatively generous to archaeologists), and formalises the circumstances in which damages and penalties would be applicable, thus making them more predictable. It is flexible, and does not prescribe how the archaeological work should be done or costed, and should therefore be usable in all circumstances. It also demonstrates the professionalism of the contractor or consultant proposing the contract. Finally, it is accompanied by guidance notes that not only provide advice on how the clauses should be interpreted, but also provide the client with information about the various roles and responsibilities in archaeology – and their own responsibilities.

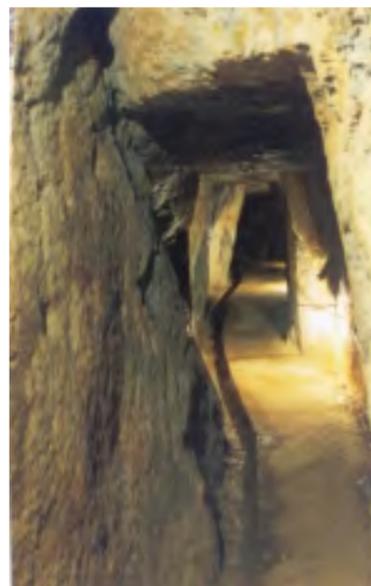
Copies can be obtained for £15 from Thomas Telford Publishing, 1 Heron Quay, London, E14 4JD, 020 7987 6999, fax 020 7538 5746 www.t-telford.co.uk

In north-west Europe we are familiar with the process of commercial archaeology on behalf of private clients. Realities of globalisation and the urgent needs of development and renewal across Europe mean that challenges of managing this impact on archaeological remains now have to be tackled across the Continent. Most of the current member states of the EU (including many pre-2004 members) are still coping with the impact of development through state heritage agencies which are poorly placed to cope with these new challenges.

Sitting on a GOLD MINE:

Kenneth Aitchison

Roman gold in Rumania
The issue surfaced in a fiercely confrontational way at the European Association of Archaeologists meeting held in Lyon, 8 – 11 September, when a proposal was made for EAA to support a formal statement of concern regarding the impact of mining development at the site of Roşia Montană in Romania. Roşia Montană, high in the Apuseni



Roman mine gallery, Roşia Montană. © Alburnus Maior



Roman goldmine at Roşia Montană. © Alburnus Maior

issues of client/contactor relationships in Europe

mountains, is the spectacular archaeological site of Alburnus Maior, a Roman gold mine with remarkable preservation within the galleries of the ancient mines. The mineral resource still has significant economic value, and a mining consortium, led by a Canadian company, seeks to exploit this.

Commercial archaeology, no conflict
Most EAA members are academics, working mainly with prehistory. Few have significant experience of commercial archaeology, and the concept of working ethically for clients seems alien. But this was exactly what we were seeing at Lyon – Romanian archaeologists responding appropriately on behalf of their clients, for whom they are managing the potential impact of development on archaeological remains.

Heated discussion came about as the relatively mildly-worded statement proposed to the meeting was met with vigorous rebuffal from Romanian archaeologists working at the site, who felt that EAA was looking to criticise the archaeological work that was being undertaken there.

Earlier mistake
EAA has made an embarrassing mistake relating to commercial archaeology and best practice before when, early in 2004, an inaccurate story was posted

on the EAA website regarding archaeological involvement and road development near Tara in Ireland.

Mediation for sustainability
Roşia Montană is a landmark issue which signifies that, across the twenty-five EU member states and beyond, commercial archaeology as the means to mediate a sustainable outcome to development's impact on archaeology is a reality in the present and will become the norm in the near future.



Roman mausoleum at Roşia Montană. © Alburnus Maior



British Archaeological Awards 2004

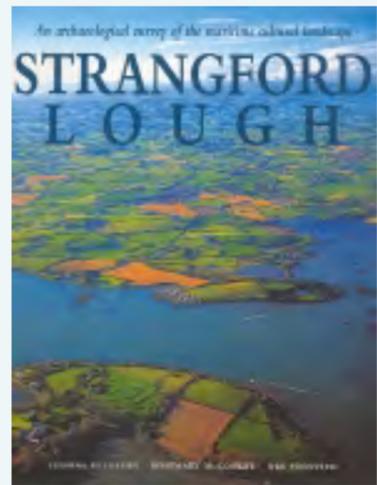
The biennial BAA was held this year in Belfast, and for the second time included an Award sponsored by IFA. IFA members and RAOs were well represented in many categories too. There is only space to mention a few highlights here, but there are full details on CBA's website at www.britarch.ac.uk.

Awards in Belfast: BAA 2004 was held in Elmwood Hall, Belfast

Mick Aston Presentation Award). The overall winner was the *Caithness Archaeological Trust*, which acts as a bridge in bringing voluntary and professional groups together and contributes to making archaeological heritage important relevant to the modern world. The involvement of community with professional archaeologists to study the historic environment is well recognised as the best way forward, and the panel of judges regarded this project as an important development in Scottish archaeology and one that may be used as a model throughout the UK.

An Award that is of great interest for maritime archaeologists is the **Keith Muckelroy Award**, sponsored by the IFA Maritime Affairs Group and the Keith Muckelroy Trust. It is given for the best published work on British maritime, nautical or underwater archaeology that reflects the pioneering ideas and scholarly standards of the late Keith Muckelroy. Shortlisted entries coincidentally represented the geographical scope of the award,

covering work in England, Northern Ireland, Scotland and Wales: *The Earl of Abergavenny – Historical Record and Wreck Excavation*, by Edward M Cumming (an interactive CD-ROM), *The Barland's Farm Romano-Celtic Boat*, by Nigel Nayling and Seán McGrail (CBA Research Report 138, see *Reviews*, this volume) and two papers in the *International Journal of Nautical Archaeology* relating to the protected wreck site at Kinlochbervie, one by Philip Robertson, discussing the wreck itself and the other by Duncan Brown and Celia Curnow on the ceramic assemblage for the site. The overall winner was *Strangford Lough: An Archaeological Survey of the Maritime Cultural Landscape*, by Thomas McErlean, Rosemary McConkey and Wes Forsythe, forming Northern Ireland Archaeological Monograph No 5.



Strangford Lough, winner of the Keith Muckelroy Award for Maritime Archaeology

Keith Muckelroy Award: Nigel Nayling receives his certificate for Barlands Farm, co-authored with Sean McGrail



The **IFA Award** goes to the best archaeological project undertaken by a professional team or mixed professional/voluntary partnership demonstrating a commitment to recognised professional standards and ethics. This year, there were special commendations for *The Marine Aggregate Dredging and the Historic Environment: Guidance Note* and also the **Myer's Wood Project**, a collaboration between the Huddersfield and District Archaeological Society and the Department of Archaeological Science at the University of Bradford to investigate a medieval iron industrial site (this project also ended up as overall winner of the



Representatives of Caithness Archaeological Trust, worthy winners of the IFA Award. Andy Heald holds the trophy. Photograph: Mike Brooks

The **Current Archaeology Award for Developer-Funded Archaeology**, for the project which best demonstrates the value of developer-funded archaeology, naturally had an excellent crop of RAOs as highly commended entries. At the Harts Hill Quarry in Berkshire, **Cotswold Archaeology** excavated an extensive Middle Bronze Age settlement, in the middle of which they found evidence for iron working, which gave radiocarbon dates of around 1000 BC – somewhat earlier than the beginning of the Iron Age. Two excellent entries from **Pre-Construct Archaeology** looked at Roman sites in London. At the Tabard Square, Southwark, they found one of the most extensive Roman temple precincts yet found in London, and at Shadwell in the East End, they found the second largest set of baths from Roman London.

At Gayhurst, Buckinghamshire, **Northamptonshire Archaeology** excavated a barrow where the original ceremonies appear to have been accompanied by a feast which involved the slaughter of some 600 cows. And in Leominster, **Archenfield Archaeology** (not yet an RAO but we will give some encouragement) has excavated an extensive area of the medieval town in advance of a new store for the Focus DIY Group. The worthy winner was **Wessex Archaeology**, for the Amesbury Archer, where scientific analysis has shown that the person buried was almost certainly an immigrant, who according to the chemical composition of his teeth, was probably brought up in central Europe.

Albion Archaeology, along with Bedford Borough Council, the Bedford Design Group and DSD Contracting distinguished itself in the **Heritage in Britain Award**, sponsored by English Heritage, Historic Scotland and Cadw, for the best project securing long-term preservation of a site or monument. The royal castle at Bedford was deliberately wrecked to prevent its ever being used again after a siege in 1224. By 2001 it was reduced to 'an ugly blemish in an urban wasteland.' Imaginative regeneration has opened up the area, linked it to the nearby museum and galleries, and created an attractive park close to the river embankment. The castle mound has re-emerged as a recognisable historic feature within as an amenity area, and presents to the people of Bedford a lost part of their history.



The 'tower' with new green oak shelter and rebuilt revetment wall



Artist's impression of the design proposals. Artwork by Cecily Marshall

No re-enactors please, we're archaeologists!

Kim Biddulph

What does live interpretation mean? Bearded men in ill-fitting Saxon outfits bashing each other with axes? Buxom wenches in velvet declaiming in faux-Shakespearean? Or a worthy but dull tour guide talking in minute detail about Georgian bricks?
Kim Biddulph, archaeologist and Company Secretary of History Talking, a company that provides historical interpreters and training in interpretative techniques, draws on experiences in providing professional interpretation at Historic Royal Palaces and training guides for the Royal Collection.

Following the session on interpretation at the 2004 IFA conference, and given that I worked as a costumed interpreter for four years, I began to think about how to improve the quality of live interpretation on archaeological sites. Tracy Borman of English Heritage mentioned the advantages of professional costumed interpretation briefly in *TA 45* but only as an adjunct to re-enactment. The recently published *Opening Doors* report for the Attingham Trust noted that 'Living History' or re-enactment can form the backbone of the learning experience at heritage sites but that the most interesting work is outside this 'Living History' framework.

I was a costumed interpreter, not a re-enactor. I did not re-enact events, I interpreted them. Sometimes this may have involved dancing or dressing in public but it was always interpreted, not just shown, and this was alongside guided tours, presentations and education sessions. These were not your average lectures but were delivered in an interpretative way, using architectural features and furnishings to explore social history.

What I did was not acting. Acting involves dramatising the past, not interpreting it. If the truth is not exciting enough, actors will embellish it. What interpretation does is to make connections between people now and in the past, so facts do not have to be embellished. And interpretation does not have to be in character. Many visitors can be put off by an actor speaking Tudor-ese at them.



An interpreter in Edwardian costume leads an education session at Monaughty Hall in Wales. © History Talking Ltd, 2004

This contrast was brought out in a recent experience of a colleague at *History Talking* who had a meeting with an actor working regularly at an historic site in London. The actor was explaining how she had written a script for a tour. My colleague mentioned a job she had done in Cambridge. 'We didn't put on a show, we just did interpretative conversation. We chatted.' The actor was surprised at the thought of



Three interpreters in Edwardian costume talk to alumni at Trinity Hall, Cambridge. © History Talking Ltd, 2004

such close contact with visitors. Public archaeology projects have, however, used actors to great effect, for instance at Gardom's Edge in Derbyshire. Actors took roles in prehistory to explore certain themes and emphasised the difficult nature of interpreting archaeology. In my view, the actors at Gardom's Edge were actually interpreters.

Interpretation should capitalise on studies such as Lois Silverman's. She identified five ways in which people might learn about the past

- *first hand experience*. Interpreters get visitors involved where a piece of theatre cannot
- *using a life story*. A costumed interpreter can represent a specific person and use their life to illustrate themes
- *using a trusted individual as a source*. Interpreters strive to be amiable and welcoming and are never sarcastic about visitors as a way of making an historical point
- *understanding artefacts as symbols in people's lives*. Archaeologists are best placed to interpret material culture, and can be excellent interpreters
- *using professional historical skills*. The interpreter always tries to lay bare the mechanics of interpretation, mentioning, for example, sources and their reliability.

But what is interpretation? Anybody setting out as an educational or community archaeologist should read Freeman Tilden's *Interpreting our heritage*. According to Tilden historical interpretation follows certain principles. Amongst these are:

- interpretation is 'An educational activity which aims to reveal meanings and relationships through the use of original objects, by first hand experience, and by illustrative media, rather than simply to communicate factual information'
- 'any interpretation that does not somehow relate what is being displayed or described to something within the personality or experience of the visitor will be sterile'



- 'interpretation is an art... Any art is in some way teachable' (9).

The last rule is fundamental as it implies that anyone can learn to interpret well. So even if you can't afford professional interpreters at your events, whether in costume or not, get trained to do it yourself instead. There's a live interpreter in all of us!

Kim Biddulph
History Talking
www.historytalking.co.uk.

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Children play with an interpreter's Elizabethan dress at Monaughty Hall in Wales. © History Talking Ltd, 2004

LOCAL AUTHORITIES & MARITIME ARCHAEOLOGY

Robin Daniels

Local authorities don't have to do maritime archaeology. They have no powers beyond Low Water and no resources for the work, and as we do not fulfil a planning role in the marine environment we have no input into what actually happens. Nevertheless, local authority archaeologists with coastlines still feel that they have a professional responsibility for their offshore areas.

There are three good reasons why local authority archaeologists are a key part of the jigsaw in creating a system to look after the maritime heritage of the UK.

Firstly, there is our professional responsibility and interest. A large element of the offshore area comprises drowned landscapes, a continuation of early prehistoric landscapes on land. Without considering these landscapes we only achieve a limited picture of life in early prehistory. The seas also contain the remains of seacraft, a key part in the social, technological and commercial development of the UK. It is inconceivable that those with a responsibility to ensure the recording and conservation of archaeological sites should ignore these elements of our past.

Local authority archaeologists are of course custodians of SMR/HERs, the principal records of archaeological sites in a given locality. There is huge scope for these records to plug into the local knowledge of divers, fishermen and maritime researchers in a way that national records would find impossible. Of course we will need resources to do this but the gains would be substantial.

The third reason is the experience and expertise which local authority archaeologists possess in dealing with planning related issues and casework on a day by day basis. The pace of marine development is increasing and sensitivity to that development is also increasing. National agencies are already hard pressed to deal with this and local communities are becoming increasingly concerned about substantial offshore developments, such as windfarms, which can have a major impact on adjacent areas but over which there is little local control.



Tees Archaeology staff monitoring the Designated Historic Wreck at Seaton Carew, near Hartlepool © Tees Archaeology

The provision of the appropriate powers and resources to local authority archaeologists will create a local element for the recording and curation of the marine historic environment which is missing at present. But it is of course a matter for national government to specify these powers.

Robin Daniel
Chair ALGAO Maritime Committee

'Partnership' – a successful joint Tees Archaeology/Nautical Archaeology Society North-East project to record a foreshore wreck at Hartlepool © Tees Archaeology



MANAGING THE MARINE CULTURAL HERITAGE: MAG Conference 2004

Julie Satchell



Portsmouth's dockyard.
Photograph:
E A Firth

Delegates and speakers from around the world gathered at Portsmouth Historic Dockyard for this conference on 29-30 September 2004. This event was instigated and organised by the IFA Maritime Affairs Group (MAG), with sponsorship from English Heritage and the British Academy. The aim was to bring together experts to present examples of maritime archaeological management practice and to stimulate debate on current issues.

In addition to conference sessions, delegates enjoyed the attractions of the Historic Dockyard using their free All Ships Ticket. Other delights included browsing stands and stalls at the conference venue and the conference dinner on the gun deck of HMS *Warrior*. We were treated to a pre-dinner guided tour of this historic vessel before taking advantage of the bar. The barrel-bottom stew menu was accompanied by sea shanty music to create an atmospheric evening.

Ian Oxley addresses the MAG conference.
Photograph: Douglas McElvogue



The conference sessions boasted speakers from around the globe who presented details of their experiences of managing maritime cultural heritage (see www.magconference.org.uk for a full list of speakers). The final discussion session brought out the main issues of the sessions, including urgent needs for

- a maritime archaeological research framework for the UK
- a disposal policy for maritime finds
- more specialist maritime training
- a campaign for ratification of the UNESCO convention on underwater cultural heritage.

The first two issues are inexorably linked to issues of archaeological significance. It soon became clear that, compared to some nations, the UK is a long

way from having adequate marine archaeological data to enable decisions to be made. Debate continued over how significance is determined, especially when dealing with shipwrecks that may have affected the history of nations across the globe.

These pertinent issues require the attention of the whole maritime archaeological community and will provide a challenge for the future development of

our profession. We hope that MAG will continue to act as forum for this important undertaking.

For further information see www.magconference.org.uk

Julie Satchell
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MAG committee member

Views

David Miles, Chief Archaeologist, English Heritage

'The raising of the *Mary Rose* was the most watched event in British archaeology. Nevertheless, in England maritime archaeology remained a castaway. Two years ago English Heritage, at last took on responsibility for this vital part of our island history. And never have the pressures been greater from transport, energy, mineral developments, fishing and coastal erosion. *Taking to the Water* sets out our approach. We want to see maritime archaeology integrated into the mainstream and this conference, providing valuable lessons from Australian, American and European colleagues, was a valuable step towards teaching us all to walk on water.'

Allison Fox, Curator of Archaeology, Manx National Heritage

'This area is a vast resource and the practicalities and possibilities of working with it became much clearer during these two days. All the speakers were interesting and their particular subjects relevant, the venue was great and the organisation is to be commended. The opportunity to visit the *Mary Rose*, *HMS Victory* and *HMS Warrior* was not only exciting, but being given the chance to join in parties of visitors and to see their reactions, confirmed the power and potential of our marine cultural heritage.'

Jeremy Weirich, Maritime Archaeological Programme Officer, NOAA, USA

'Despite the fact that this was the first year of this event, I anticipated that it would be a success, and I was not disappointed. Attended by a well-represented, international crowd from varying disciplines, this conference hosted a diversity of maritime heritage experts. However, what really separated this from other conferences was the event origination. Sessions were designed around specific, focused topics, speakers were given ample time to deliver their points, and group discussions were unrushed and well facilitated. Even the ancillary events outside of the conference were well organised, and like many of the other delegates, I left with a new batch of contacts, reaffirmed old partnerships, and gained a better understanding of the challenges and opportunities we face, globally, in helping to preserve and protect our maritime heritage.'

Photograph:
Douglas
McElvogue



The noblest shipp of sayle: *Mary Rose* 2004

Douglas McElvogue



In 2003 the Ministry of Defence announced a £200 million regeneration plan to prepare Portsmouth harbour for larger aircraft carriers, enabling the *Mary Rose* Trust, sponsored by and working in close co-operation with the MOD, to revisit the site. Proposed dredging to realign the entrance channel would have a direct impact on the site, so extensive diving and surveying operations were undertaken for the first time since 1982.

Revealing the bows

Diving operations conducted from MV *Terschelling* included excavation of original spoil heaps by a remotely operated vehicle (ROV) which uncovered over 300 finds. The most significant discovery was the stem-post and parts of frames from the port side. In 2004 the objective was to assess the extent of the timbers in the bow area and to investigate unknown targets highlighted in geophysical surveys the previous year. Unfortunately we identified no new sites from these targets, but assessment of the bow area uncovered larger sections of the forward part of the ship that went beyond all expectations.

Divers from the *Terschelling* were lowered to the seabed via a diving bell which also offered a safe and comfortable place for the mandatory decompression stop. Divers worked within a 16x4m grid to the north of the old excavation hole in an area where bow timbers were expected. To uncover the extent of the stem timber they excavated a trench to the north of the grid, and cut another to determine the full length of an anchor. They used a parametric sub-bottom profiler on loan from Trittech to survey the sub-seabed sediments prior to excavation of the grid. This revealed layers of sediment and dense material interpreted as surviving wood structure.

The structure and artefacts

The excavation revealed an articulated structure including 16 frames, part of a stringer, a lodging knee, outer hull planking and the stem post itself. The hull planking included hood ends (that part of the plank that lies within a rebate cut into the stem post), the inner face of which were in remarkable condition, revealing the shape of the adze that cut it and its signature marks. The remains of the stem,

lying port side up, proved it to be a composite piece made from two timbers joined together by a stop splayed scarf fastened with treenails. A fillet lies over this scarf on the inboard face helps to strengthen this joint. Apart from ship structure parts of internal partitioning, external decorative panelling, wooden pulleys, bronze sheaves, an anchor and artefacts representing the ship's armament were uncovered.

Sonar tracking the divers

The latest in underwater ultra-short base line (USBL) positioning system, supplied by Sonardyne International, was used to track the divers and position timbers and artefacts. This created a 'live' real time site plan in the diving control room,

A specialist starts to check the latest finds. Photograph: Douglas McElvogue





Recording the *Mary Rose*. Photograph: Chris Dobbs

enabling both the project surveyor and the diving supervisor to watch the divers as they moved around the site. In bad visibility (often the case), this became an invaluable tool to direct the divers and make informed decisions. For precision surveying Sonardyne's Fusion positioning system was combined with a surveying staff with the detail of the timbers being recorded 1:1 by divers. In this way they could rapidly develop an accurate site plan.

Our boat, the *Terschelling*. Photograph: Douglas McElvogue



Graceful lines

We excavated the full 16x4m area to between two and four metres below the seabed during a total of 21 days spent on-site. This included in-water time of 336 hours, the equivalent of 14 days underwater. Three hundred tons of sediment were excavated from which 140 artefacts, 52 timbers and 65 samples were registered. Unfortunately the main structural timbers, including the stem, had to be left *in situ* and the site has been reburied. It is hoped that further funds will be forthcoming to fully excavate the forward part of the *Mary Rose* in the future. That said, what has already been learnt has extended our knowledge of the construction and shape of the missing bow of the *Mary Rose*, confirming the graceful lines of a ship that was truly as Admiral Howard said, c. 1513 "... the noblest shipp of sayle ... in Christendom".

The *Mary Rose* and its collection can now be viewed all year round at Portsmouth Historic Dockyard. For further details, see our website www.maryrose.org

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For the Record: cataloguing maritime artefacts in North East England

Gary Green

With increasing offshore development it is important that the marine historic environment is suitably assessed, identified and recorded. The newly formed North-East of England branch of the Nautical Archaeology Society (NAS NE), is therefore about to undertake a pilot project, 'For the Record', grant-aided by the English Heritage Regional Capacity Building Scheme, to gather information in order to develop strategies to preserve it for future generations.

Modern technology allows the positions of wreck sites to be accurately plotted, but the *identity* of vessels has proved more problematic. However, the surviving structural remains of more modern wrecks can often lead to a precise identification of the vessel, for example, through the type and size of boilers, engines, anchors, and even the thickness and riveting pattern of the hull plating. Features such as winches and windlasses also provide good diagnostic evidence.

It is fair to say that the walls of most Branch Clubhouses will be 'decorated' with material recovered from shipwreck sites. One key objective, therefore, is to catalogue this material, in order to build up typologies which will lead to the identification of wrecks in UK waters and around the world. Examples of possible typologies include portholes, navigational equipment such as telegraphs and compass binnacles, and diagnostically valuable valves and gauges.

Covering an area from the Tweed to the Humber, the structure of this pilot project is simplicity itself. Having been invited by the Diving Club, one or two fully-qualified NAS Tutors and maritime archaeologists will visit the Branch clubhouse to record their archaeological material, taking digital images and compiling a brief written record. Information will be fed into the relevant SMR and also the NMR.

The success of this project relies on the co-operation and trust of diving clubs. Despite the Receiver of



A ship's head from an unidentified wreck. Photograph: Dave Coston, NAS NE

Wreck's recent Amnesty, it may be that a few items have been overlooked or new material may not be reported yet, but we would like to make it clear that we are not looking to catch Clubs out. We also appreciate that Clubs need to guard certain wreck sites from unscrupulous wreck divers. However, from an archaeological point of view, knowing the names and positions of sites allows greater understanding of the development of the UK's maritime history and goes some way towards long-term protection – for the benefit of *everyone*.

Material held by BSAC 985 Branch, 'Hartlepool Divers', has already been recorded, and a further invitation received from SAA Scarborough Branch. The success of this project should provide the impetus to extend the scheme to the rest of the UK.

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Celtic boats and ships

Seán McGrail

In 56BC Julius Caesar had to quell a revolt by the Veneti, a Celtic seafaring people of southwest Brittany. In his account (*De bello Gallico*), Caesar noted that the Veneti ships were very different, in both build and rig, from his own Mediterranean-style vessels. These Celtic ships were built entirely of oak: stout planking was fastened to hefty frames by iron nails an inch in diameter. These solidly-built ships could withstand any amount of rough usage, and could not be damaged even when rammed. Unlike Roman ships Veneti ships had flat bottoms, which allowed them to venture inshore through shoal waters and to be beached safely. Furthermore, their exceptionally high bow and stern fitted them admirably for the heavy seas and violent gales of the Atlantic. They had sails of rawhide or thin leather; in this, and in other respects, they were better adapted to operations in these waters than Roman ships.

New discoveries

That was all that was known about Celtic planked boats and ships until the late twentieth century, when twenty or so vessels, dated to the first to fourth centuries, were excavated from sites in an arc stretching from the Swiss lakes, along the Rhine, the



A Romano-Celtic barge during excavation at Zwammerdam near the mouth of the Rhine. Photograph: S McGrail

Thames and the Severn, and on to Guernsey. These craft are clearly different from those of the contemporary Baltic and Mediterranean. As a group they have many features in common, and some characteristics echo Caesar's description of Veneti ships. There are considerable difficulties in linking documentary with excavated evidence, nevertheless it seems likely that the vessels Caesar described were forerunners of the recently excavated first to fourth-century AD vessels.

Most of these vessels are of elongated box shape and come from the Rhine region: these were probably used as barges on river and canal. Seagoing vessels of this tradition have been excavated from the Thames in London (Blackfriars 1 of c. AD150, by Peter Marsden, 1962); the main harbour of Guernsey (St Peter Port 1 of c. AD275, by Margaret Rule, 1985);

The distribution of Romano-Celtic vessels. Glamorgan-Gwent Archaeological Trust.

- | | | |
|--------------------|----------------|--------------------|
| 1. Barland's Farm | 2. Blackfriars | 3. New Guy's House |
| 4. St Peter Port | 5. Abbeville | 6. Pommeroeul |
| 7. Bruges | 8. Zwammerdam | 9. Woerden |
| 10. Kapel Avezaath | 11. Druten | 12. Xanten |
| 13. Mainz | 14. Bevaix | 15. Yverdon |
| 16. Avenches | | |

and the northern shores of the Severn Estuary (Barland's Farm of c. AD300, excavated 1993).

Barland's Farm

Barland's Farm boat was excavated by the Glamorgan-Gwent Archaeological Trust, under the direction of Nigel Nayling, near Magor in Gwent, South Wales. The boat was lying close to a tidal stream which, in the Roman period, flowed south into the estuary. The remains consisted of the lower stempost and some bow planking, the plank-keel and much of the bottom planking, and about two-thirds of the port and elements of the starboard planking. A mast-step timber was fastened on the centreline to a floor timber and a pair of half-frames.

The dismantled remains of the Barland's boat have been conserved by York Archaeological Trust and now await re-assembly in Newport Museum. Using a one-tenth-scale model of the remains, a 'first approximation' reconstruction model has been built. The overall measurements of such a reconstruction would have been 11.4x3.16x0.9m, and she could have carried a load of 4.6 tonnes with a draft of only 0.45m. Under sail she would have been capable of passages in the Severn Estuary as far west as Cardiff and Bridgewater, as well as in the tidal rivers that flow into it.

Celtic innovation

A characteristic of these three seagoing Romano-Celtic vessels is that they were built 'frame-first'; that is, the required shape of the hull was visualised in terms of the framing. The plank-keel, posts and framing were designed and set up to give the hull shape; after that the planking was fashioned and fastened to this framing. This building sequence is fundamentally different from that used in the



contemporary Baltic and Mediterranean traditions in which vessels were built plank-first: that is, the planking was fastened together to form the hull-shape, and the framing subsequently added.

The Celts appear to have been the first to use the frame-first building sequence, possibly derived from a similar sequence used when building hide/skin boats. This innovative technique was subsequently used a thousand years later to build the ships of the fifteenth- and early sixteenth-century explorers such as Dias, Vasco de Gama, Columbus and Magellan. Whether there was a link between the Romano-Celtic technique and late-medieval shipbuilding in Atlantic Europe is the subject of continuing research. It is possible that the early medieval river and coastal vessel Port Bertheau 2, excavated by Eric Rieth in 1997 from the River Charente near Saintes in western France, may be an element in such a linkage.

McGrail, S & Roberts, O 1999 Romano-Celtic boat from the shores of the Severn Estuary. *Mariner's Mirror*, 85: 133-146

Nayling, N & McGrail, S 2004 *Barland's Farm Romano-Celtic Boat*. York. CBA Research Report. 138.

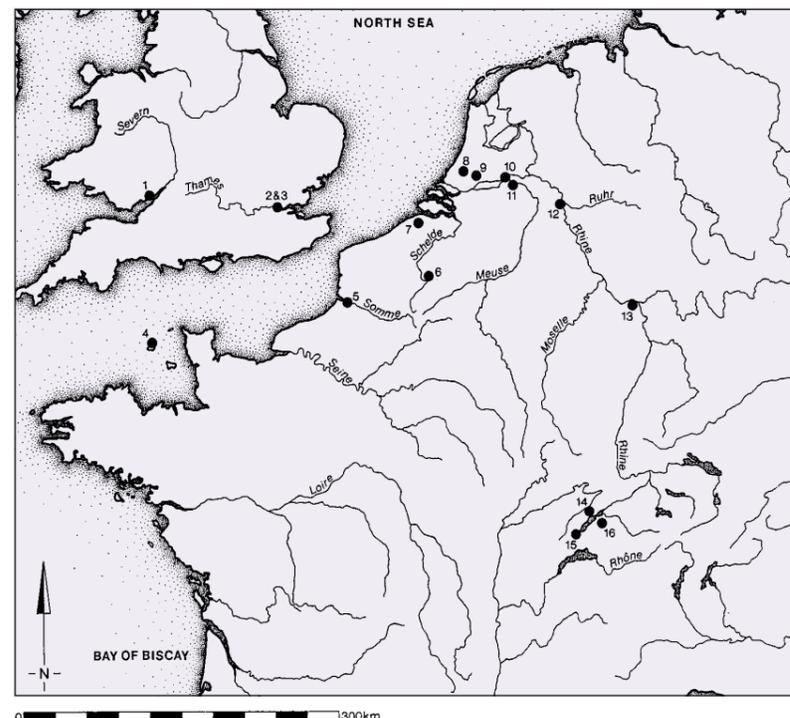
Seán McGrail
Centre for Maritime Archaeology
University of Southampton



1:10 reconstruction of the Barland's boat. © G-GAT

Celtic boats and ships

The Barland's Farm boat during excavation, looking towards the bow. © G-GAT



Applying PPG16 at sea

Gill Andrews

English Heritage in *England's Coastal Heritage* states that the principles of English planning guidance PPG16 should in future be applied to management of the maritime cultural heritage. The concept of 'value' in terms of remains and return on expenditure underpins both PPG16 and the EIA Regulations and is critical to their successful implementation. Therefore the challenges of determining value in the context of maritime development urgently need to be addressed.

Reasonable, rapid and inexpensive

On land, developers now accept they have a responsibility to mitigate the damage they cause to archaeological remains. This acceptance is based on reasonableness: developers expect clarity on the importance of remains and precise definition of their obligations. This is reflected in the IFA *Standards for desk-based assessment and evaluation* where the need to assess 'worth in a local, regional, national or international context as appropriate' is emphasised. PPG16 also states that such assessment should be rapid and inexpensive.

Considerable efforts have been made to ensure that PPG16 can be effectively implemented. English Heritage instigated research frameworks to help measure value and, with IFA and ALGAO, promoted professional standards and best practice. Various initiatives focused on improving approaches to site evaluation and understanding formation process and factors which affect archaeological survival.

Searching for a context for fragmentary data: maritime archaeology is having to address unfamiliar landscapes that are surprisingly close to home. © Wessex Archaeology

Interpreting fragmentary data

Developers in a maritime environment have similar needs, but in practice there are difficulties in following the PPG16 model. With hindsight the investment in terrestrial archaeology in 1970s and '80s made the implementation of PPG16 possible. Huge investment in archaeology had led to a significant growth in understanding and provided the background for interpreting fragmentary data from evaluations.

Maritime archaeology has not benefited from the same levels of investment. Like the rescue archaeology of the 1960s, it has been largely *ad hoc* and reactive, with a tendency to focus on individual wrecks. Archaeological curators are therefore not in a strong position when applying PPG16 principles.

Lack of academic and formation deposit models

There is growing acceptance that it is reasonable to expect provision of baseline information through a desk top study followed by low resolution geophysical and bathymetric survey. Where definite wreck sites are indicated, the need for further investigative work may be accepted, but in reality it is likely that initial data will indicate anomalies whose character is not immediately recognisable. This is where the lack of academic and formation deposit models which frame understanding is really felt.

The need to interpret survey data raises a number of issues. Once detailed investigation is required, including archaeological inspection by diving or excavation, costs rise substantially. When should this work take place? How much data must a developer acquire in advance of getting permission? We need to be realistic about what the data can tell us and what it is therefore justified to demand, always remembering that any decision must be defensible at a public inquiry.



Investigating maritime sites

The case is clearest with wreck sites, which may demand some kind of protection and therefore need sufficient data to clarify their character. It is reasonable for curators to request site-specific geophysical data, the results of inspection by diving or ROV and possibly intrusive investigation.

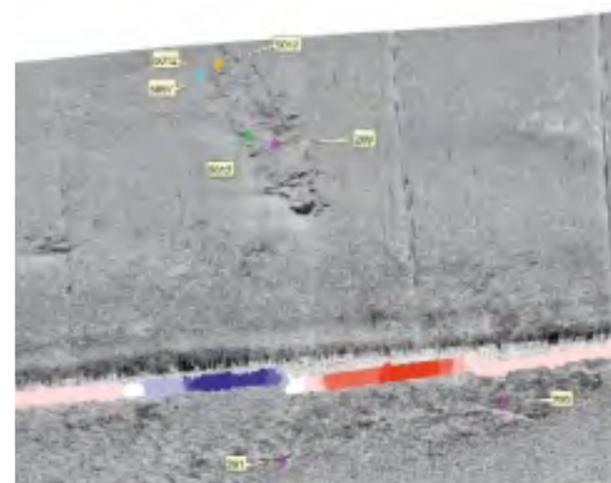
For sites and maritime landscapes whose character is unclear after low resolution survey, the case for demanding enhanced data-collection is difficult to make. The acquisition of higher resolution data does not automatically imply greater understanding of the resource. With imperfect frameworks of understanding, there is danger that further data acquisition will deliver just that – further data but no increase in knowledge. And it is unlikely to be either rapid or inexpensive. This does not seem to comply with any notions of reasonableness for the developer.

Post-decision mitigation strategies

A consequent inability to determine value means that it is not possible for the curator to indicate to a developer the likely extent of their obligation. If there is no scope for avoidance of remains whose character and importance cannot be determined there may have to be acceptance that an appropriately designed programme of mitigation will be implemented post-decision.

This is not in line with PPG16 and leaves the developer with an open ended liability. Both the archaeological remains and the developer are

High resolution geophysical survey can help to resolve ambiguities in desk-based sources and previous surveys. © Wessex Archaeology



exposed to risk. How is the curator to persuade a developer to accept conditions which reflect this? These issues need to be addressed urgently and honestly. Until there are adequate frameworks for assessing value in maritime contexts it may be necessary to accept that, with the exception of wreck sites, a different model from that used on land will be needed.

Off shore windfarms are major developments that need archaeological assessment. © English Heritage

Benefits of private sector funding

One thing is clear. Terrestrial archaeology has demonstrated the contribution that private sector funding can make to the development of the discipline, and maritime archaeology is now in a position to benefit similarly. Developers are prepared to honour a commitment to the heritage as long as this is justified and clearly defined. What is now needed is public investment in the development of robust frameworks leading to a broader understanding of the marine historic environment. Only then can curators take informed decisions on value, for developers to control risk and for the maritime resource to receive the protection it deserves.

Fulford, M Champion, T and Long A (eds) 1997 *England's Coastal Heritage: A Survey for English Heritage and the RCHME*. English Heritage and RCHME

Gill Andrews
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MV 'Sand Falcon', a 4000m³ capacity trailer suction hopper dredger operated by RMC Marine, an example of the type of vessel commonly employed in the waters of the UK continental shelf by the British marine aggregate industry. Photograph: BMAPA

Marine aggregates & the historic environment

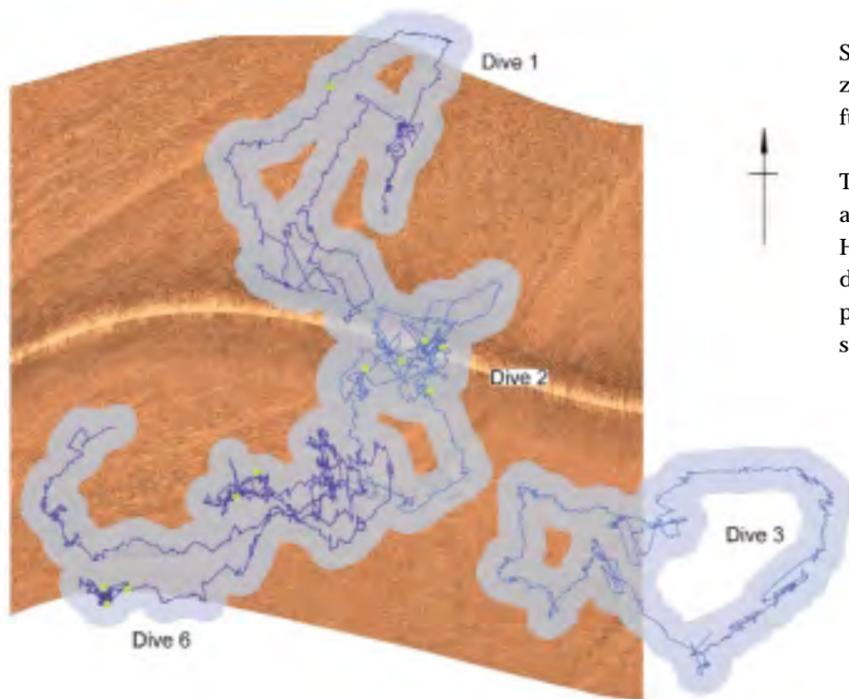
Mark Russell

Terrestrial sand and gravel quarrying has had a huge impact on our understanding of the historic environment. Now the marine aggregate industry is targeting similar deposits with similar potential for archaeological significance, including submerged landscapes and artefacts as well as the more obvious wrecks. The main difference is that the sites are under water, bringing unique challenges to industry, regulators and curators. The industry recognises this potential and has endeavoured to overcome issues by being part of the solution.

Marine Aggregate Dredging and the Historic Environment: Guidance Note (which has just been specially commended for an IFA Award by British Archaeological Awards) was produced by the industry in partnership with English Heritage in order to guide developers, regulators and other stakeholders through every stage of development, from assessment of new licence areas to mitigating and monitoring sensitive sites and reporting and evaluating finds. This approach is a blueprint for other industries operating offshore, for the aggregate industry is by no means unique in its impact upon marine archaeological features.

The Hastings Shingle Bank production licence is a good case history of these guidelines in action. The

Sidescan sonar image from the Hastings Shingle Bank production licence area, located off the coast of East Sussex, showing hatch covers (from a modern wreck). The image is overlain by a diver track from the additional archaeological investigation. Clarification provided by this site investigation allowed the archaeological exclusion zones introduced with the original licence consent to be withdrawn. © Wessex Archaeology



licence is located 10km off the East Sussex coast, and is dredged by three companies, producing over 1.5 million tonnes of sand and gravel each year. Interpretation of detailed site survey data (part of the environmental assessment process) revealed features of potential archaeological interest that led to exclusion zones being introduced before permission to dredge was awarded – a good example of the precautionary approach in practice. In this case, the operators opted to examine one area in more detail.

Collection of very high resolution sidescan sonar data was followed by a diving survey by archaeologists to confirm that the objects were not of archaeological value (they turned out to be modern hatch covers). The archaeological exclusion zones could then be removed from the planning consent, and the operators are now seeking to remove the debris from the area, releasing a million tonnes of sand and gravel resource.

So the emphasis is pragmatic; accept the exclusion zones and associated monitoring or carry out further studies to reassess the site's significance.

The marine aggregate industry believes that the approach adopted in partnership with English Heritage represents a good example of sustainable development in practice, resulting in effective protection of our heritage. This process has not stopped yet, and will continue to evolve.

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Marine Aggregate Dredging and the Historic Environment: Guidance Note can be downloaded from www.bmapa.org/media.htm

Surrounding Seas – Maritime archaeology around the Isle of Man

Allison Fox

On 28 December 1852, a cargo of rum, fire-arms and 50 tons of gunpowder caught fire and the brig *Lily* exploded spectacularly off the Isle of Man. Twenty-nine men lost their lives and tales of wreckage landing up to seven miles away have been passed down through the succeeding 150 years. Although one of the most dramatic shipwreck stories, this is by no means the only tale of loss and misfortune in the territorial waters around the Isle of Man. Since the mid-1600s, over 1200 vessels are known to have been lost within Manx waters and no doubt many more lie undiscovered.



The Isle of Man is an internally self-governing dependent territory of the Crown. It therefore has its own wreck law and Receiver of Wreck. The principles of Manx wreck law are largely the same as those of the UK, in that items from a wreck with no owner will be reported to the Receiver and after one year may be returned to the finder. Such finds are often donated to Manx National Heritage – the national heritage agency. The Island embarked on its own successful *Wreck Amnesty* in 2001 and there are now descriptive records with current whereabouts of declared maritime finds.

Underwater visibility in the seas surrounding Man is among the best in the British Isles, and the Island has a thriving leisure diving industry. One club even owns the only legally protected wreck site in Manx waters. *HMS Racehorse* sank in 1822 after hitting rocks while heading to the Island to pick up crew from a separate shipwreck. Excavations have led to vulnerable finds being lifted and deposited in the national collections, including a rare example of a Royal Marines belt plate. Today, there is a protection area of 350m around the *Racehorse*.

Wrecks are not limited to ships. The importance of the Irish Sea in the second world war has been emphasised by the presence of U-boat wrecks, and the role of the Island in training is evidenced by the wrecks of planes, some under the sea.

In November 2003 Manx National Heritage opened a temporary exhibition on Manx maritime archaeology. Around 7500 people attended to see artefacts from the national collections and on loan from private individuals. Keys to successful recording and protection are communication between divers, the Receiver of Wreck and the national heritage agency; and explanation to the public. In a place where the sea has provided a lifeline to the land but has also taken many lives, the value of Manx maritime cultural history cannot be underestimated.

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Finds from HMS
Racehorse. © Manx
National Heritage

ENGLAND'S SUBMERGED PREHISTORY

Jesse Ransley

The periodic peninsularity of the British Isles has been discussed by Quaternary geologists for decades and it is accepted that Britain last became separated from mainland Europe about 8500 years ago. The archaeological consequences of this have, however, only been fully articulated and explored in the last decade or so.

PREHISTORIC LANDSCAPES ON THE SEABED
Throughout early prehistory the cycle of climatic warm and cold periods alternately locked up and released large amounts of water, causing changes in relative sea level. As a consequence, the English Channel, the southern North Sea and other areas of the UK seabed were periodically exposed and then inundated. This exposed area represented a considerable land mass, so much so that the use of the term 'land bridge' has proved inadequate to describe these extensive lowland landscapes which would have been inhabited by prehistoric groups rather than simply traversed en route to the British 'highlands'. There is therefore significant potential for underwater prehistoric sites.

EXPLORING PALAEO-GEOGRAPHY
Research into the reconstruction of remnant features of these past landscapes is proving to be multifaceted, requiring an increasingly productive inter-disciplinary approach. The complex marine transgressive and regressive processes at work have left us with a 3D jigsaw puzzle of surviving palaeo-geographic features and relic land surfaces buried within seabed stratigraphy. Geophysical survey and palaeo-environmental analysis are beginning to reconstruct land surfaces, palaeo-channels and habitats and to develop chronologies for these features.

At the same time, a number of inshore, submerged coastal sites have been identified. English Heritage is supporting work on two sites; an assessment of a submerged Mesolithic site below Bouldnor Cliff in the Western Solent and the Cullercoates submerged Mesolithic landscape project in Tynemouth.

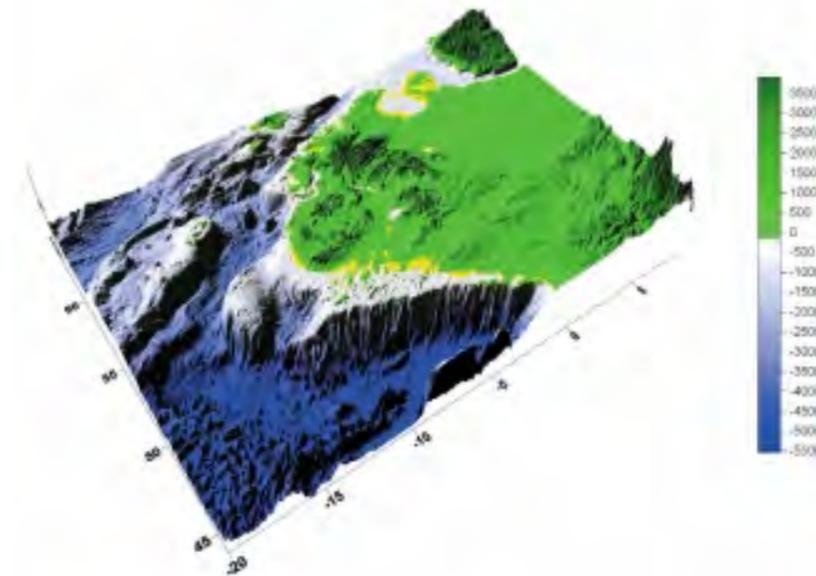
INCREASING DEVELOPMENT DEMANDS
There is, however, a contrast in resolution between the work undertaken on particular projects and our large-scale, broad characterisations of a currently unquantifiable resource. At the same time, our immediate challenge is assessing the archaeological potential of particular areas of seabed as increasing demands are placed upon it from development activities, such as dredging or renewable energy resources.

NATIONAL RESEARCH FRAMEWORK
Within this context, the development of a national research framework to focus methodological, palaeo-reconstruction and site assessment work is paramount. This part of our historic record is no respecter of boundaries, terrestrial and marine, local, regional or international. It is still challenging to investigate and largely an unknown. Yet it has the potential to provide remarkable insights into climate change, floral migration from glacial refugia and early prehistoric populations – into the way our ancestors negotiated a dynamic and changing environment and what the consequences of these discoveries are for our interpretations of the 'terrestrial' prehistoric record.

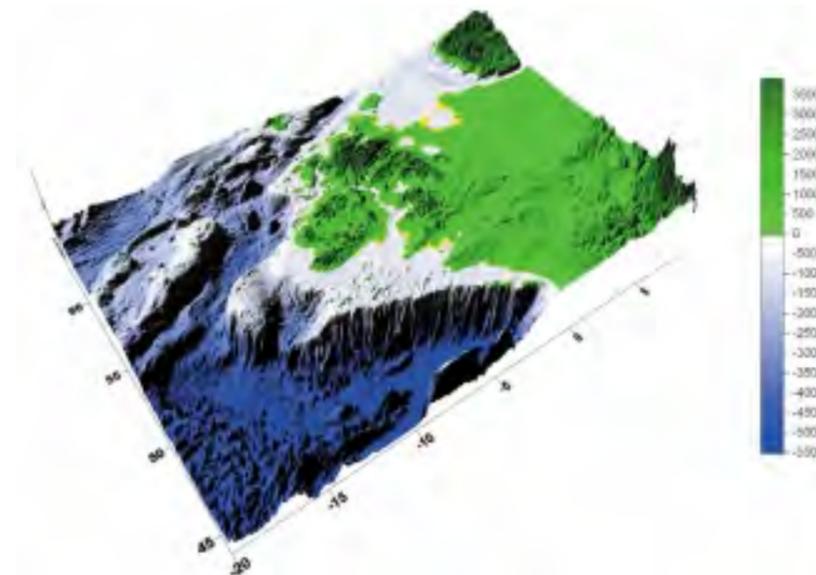
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1-3: Sea level change modelled using sea-level curves highlighting the extensive areas of newly exposed land (Dix, Westley & Quinn 2004, from an ALSF project)

North-west Europe 18,000calBP

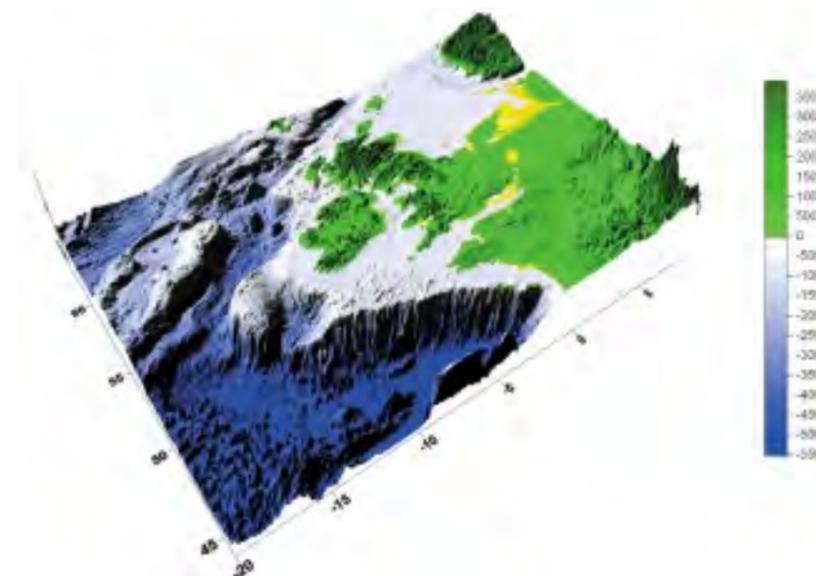


North-west Europe 14,000calBP



North-west Europe 10,000calBP.

The yellow area represents the difference between the two sea-level curves and highlights one of the complexities of modelling early prehistoric land surfaces



Assessing archaeology on the seabed of the Thames

Hanna Steyne, Jens Neuberger and Deanna Groom



Timber recovered from the Thames.
© Wessex Archaeology

The Port of London Authority (PLA), the statutory authority for the River Thames, has environmental duties alongside responsibility for safe navigation. It is now carrying out environmental sensitivity studies, and has commissioned Wessex Archaeology to do a desk-based Archaeology Strategy for wrecks and seabed features from Teddington Lock to the outer estuary.

Wrecks database

The PLA holds a database of ship and aircraft wrecks and other seabed features which it uses as a hydrographic charting tool. It is also increasingly used in environmental assessments in advance of development, such as dredging or building wind farms. Wessex Archaeology's project uses this database alongside data from the maritime section of the National Monument Record (NMR); and the United Kingdom Hydrographic Office (UKHO) wrecks database, accessed using Seazone. PLA data is primarily survey information, generated by their rolling programme of hydrographic surveys to monitor shipping channels and navigational hazards. NMR and UKHO datasets also include survey information, plus information on ships' histories prior to wrecking.

Assessing sites

The three datasets, plus historical research, are linked within an MS Access database. Sites include known shipwrecks, aircraft wrecks, seabed

anomalies that might be wrecks or downed aircraft, and documentary references to shipping or aircraft losses. The Archaeology Strategy has dealt with documented losses (casualties) and wrecks and seabed features independently, so as not to confuse actual with suspected sites. For 655 seabed sites we have linked information from at least two of the datasets, and these we have assessed for archaeological interest. A further 430 sites appear in only one dataset and have yet to be assessed.

Assessments use five criteria which recognise that the importance of a wreck may arise from one or more phases of its career. These are

- build
- use
- loss
- survival
- investigation

Information such as statutory protection is included, and the sites are graded by priority (Low; Medium; High; Very High; or Unknown), shown in colour in the GIS.

Recording casualties

NMR data also included 1799 casualties, documented losses where no wreck has yet been found. As these are not associated with an actual feature on the seabed, NMR attributes each casualty to a nominal 'Named Location' (NLO), based on documentary references. For the purposes of the

PLA Archaeology Strategy, the casualty records have been collated to show the number of casualties in total and by period at each NLO. This project has also digitised polygons for the areas to which the NLOs refer, such as sandbanks and channels, giving a more accurate spatial representation of the areas where casualties occurred. The polygons can be colour-coded according to attributes such as the total number of casualties. NLO points have also been retained, so GIS can display numbers of casualties by period as individual pie charts.

These GIS layers will help show the actual and potential maritime archaeological interest of each area, a valuable asset when the PLA is planning its own operations and advising others.

This work represents assessment of nearly 5% of the wrecks and seabed features in the NMR. Such is the archaeological importance and extraordinary

potential of the estuary – little wonder that the Thames has been called 'liquid history'.

Hanna Steyne, Jens Neuberger and Deanna Groom
Wessex Archaeology



Geophysical image: PLA's Archaeology Strategy gives a context for hydrographic survey and informed mitigation strategies.
© Wessex Archaeology

Underwater survey and Portsmouth Regeneration Project

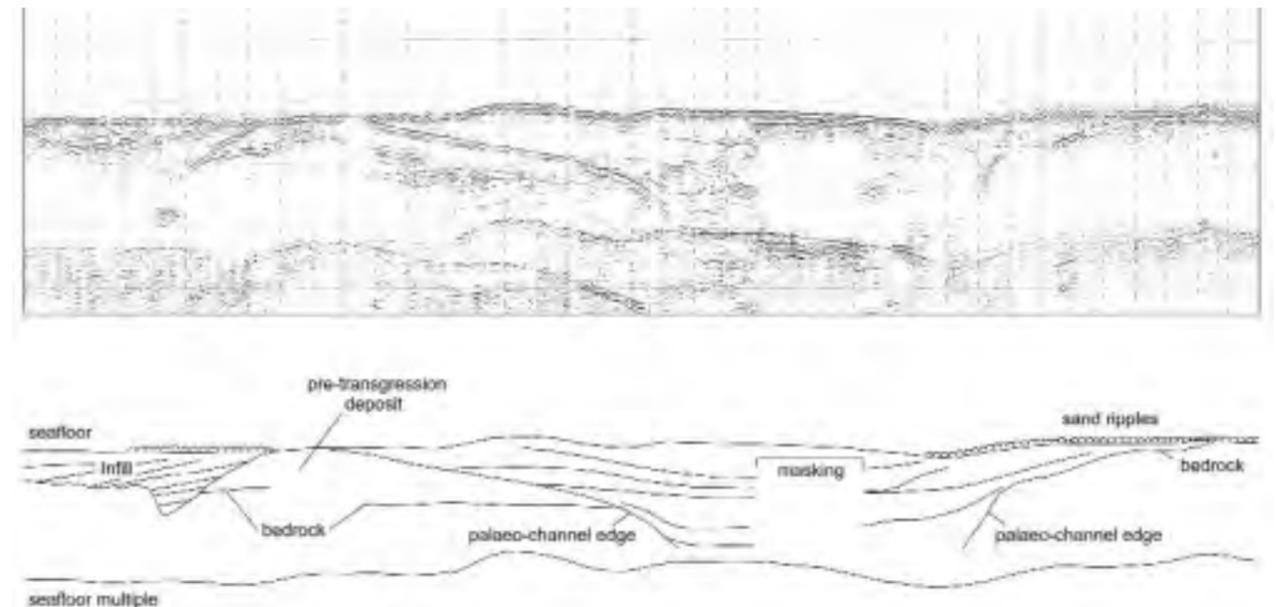
Hanna Steyne

Portsmouth Regeneration Project will provide navigation and infrastructure improvements to enable a new class of aircraft carrier (CVF) to be based at Portsmouth. The improvements include dredging within the harbour and excavation of a new approach channel. Wessex Archaeology

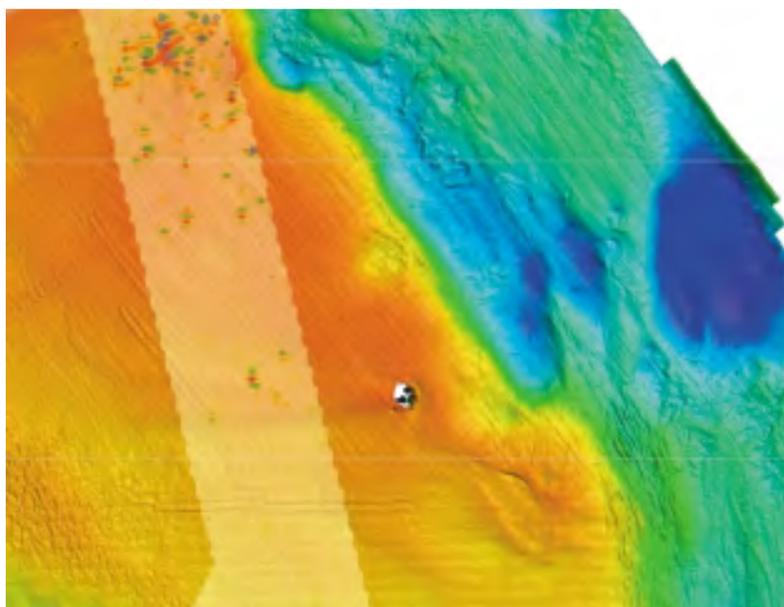
undertook marine and coastal archaeological investigations on behalf of the Defence Estates as part of the environmental assessment.

Archaeological investigations are following a phased approach, similar to that used in land

The seabed off Portsmouth – multibeam bathymetry and magnetometer data.
© Wessex Archaeology



Assistance from the MOD – geophysical surveys off Portsmouth were conducted from a Royal Navy survey vessel. © Wessex Archaeology



were incorporated into a project GIS for spatial analysis, correlation and archaeological assessment.

In order to assess geophysical anomalies, individual seabed features were grouped to see whether they formed part of a larger feature, and compared with archaeological data such as reported wrecks. These anomaly groups were then assessed for their archaeological potential, based on the combination of information about them.

Sub-bottom data was processed and analysed using Fledermaus 3D visualisation software. Through comparison with the multibeam bathymetry, several possible and some definite palaeo-channels were identified. These channels were then considered in conjunction with the archaeological assessment of sea-level change in the area.

Gazetteers of seabed anomalies and charts of buried palaeo-topography will allow a representative sample chosen from a mixture of anomalies/sites to be selected for ground-truthing. This sampling will enable clarification and characterisation of the anomaly group types identified. The selected anomalies are being investigated by archaeologists in a diving programme in autumn 2004, and this will provide a basis for development of mitigation proposals for the Portsmouth Regeneration Project.

Hanna Steyne
Wessex Archaeology



Beneath the seabed – palaeo-channels and infills indicate the potential for prehistoric remains off Portsmouth. © Wessex Archaeology

archaeology. So far we have completed a desk-based assessment, geophysical survey, and archaeological interpretation. Further phases will involve ground-truthing of anomalies, and mitigation works.

Following desk-based assessment, geophysical survey included a range of techniques including multibeam sonar, sidescan sonar, magnetometer survey, and two sub-bottom profile surveys, CHIRP and boomer, with work undertaken in conjunction with the Royal Navy. Anomalies on and within the seabed were identified, and sub-seabed horizons that indicate buried palaeo-channels were mapped. Gazetteers of anomaly positions for each dataset

HIDDEN HERITAGE OF THE SOLENT

Julie Satchell

During the Hampshire & Wight Trust for Maritime Archaeology (HWTMA) Eastern Solent Marine Archaeology Project in June 2004 an unrecorded wreck was located and surveyed. Lying just off the southern edge of Horse Tail Sands are the remains of significantly sized vessel, with substantial sections revealed on the seabed. The surviving structure from the lower hull is fastened with a mixture of wooden treenails, copper and brass pins, and iron. Its identity and date are yet to be confirmed.

This discovery adds to our knowledge of the maritime heritage of the Solent. The sheltered stretch of water between the Isle of Wight and Hampshire has been used as a haven and anchorage for thousands of years. Although a refuge during bad weather the Solent also contains hazards; the long lists of shipping casualties confirm the density of maritime traffic and the risks it can face.

Seven of the UK's 54 Protected Wreck sites (of national cultural importance) are in the Solent. Each year more evidence of historic ships and shipping is gathered, in addition to data on submerged prehistoric landscapes. However, quantification and qualification of our maritime heritage remains under-developed compared to terrestrial archaeology.

Recognition of the potential of maritime archaeology in the Solent led to the formation of HWTMA in 1991. As an independent charitable trust our work involves the promotion of interest, research and knowledge of the maritime archaeological resource. HWTMA runs a programme of research-led fieldwork involving professional archaeologists, volunteers and students.

Opportunities to gain experience in recording maritime archaeology has enabled individuals to develop their skills, and volunteers have made important contributions. Results are disseminated through publication, outreach and representation, raising the profile of the resource and ensuring its

inclusion in coastal and marine management. HWTMA represents maritime archaeology in many regional groups and fora, and effective links across disciplines and borders has demonstrated the potential and value of submerged heritage. This message has been enhanced through close communication with local authority archaeologists.

To date HWTMA remains a unique organisation in the UK. The model provides one possible solution for increasing the profile, investigation and management of maritime archaeology around the UK.

So, what now for the mystery wreck on Horse Tail Sands? Our research continues using all the evidence gathered during fieldwork. The site itself is in a licensed dredging zone, but thanks to swift positive action by United Marine Aggregates it now has an exclusion zone around it.

HWTMA maintains a comprehensive website of projects and activities: see www.hwtma.org.uk

Julie Satchell, Archaeological Officer
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MAG Committee member
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A diver records the wooden structure of the unidentified wreck on Horse Tail Sands. © HWTMA



WAKING THE (ALMOST) DEAD: assessing excavation archives from the past

David Parham

One of the many problems maritime archaeology in the UK faces is its poor publication record. This is sometimes taken to indicate that either there has been little work of value, or the marine archaeological resource contains little archaeological significance. This is of course not true. In the early days a considerable amount of investigation was undertaken, and even if some records are little more than a collection of Sotheby's receipts, many cases were important and incredibly useful, although for various reasons, (usually cuts in funding), much of this work has yet to reach the light of day.

The National Heritage Bill 2002 put marine archaeology in the mainstream of archaeological research. One result was reappraisal of the archives of several marine sites. In almost all cases sufficient original site archive survives to allow the research process to be re-established. To date, for example, the characters of sites such as those at Brighton Marina and South Edinburgh Channel have been established. Some, such as those in the Erme

Finds from Langdon Bay.
© British Museum



Estuaries, require further investigation before their full research potential can be met, while others have proved to be forgotten gems.

Archives of some extensive fieldwork projects conducted in the 1970s and '80s have been updated. Assessments show that these hold a wealth of forgotten data. For example, work on the Bronze Age wreck site at Langdon Bay has much to tell us about the nature of metal working and its trade and exchange in the Middle Bronze Age, whilst the Studland Bay wreck allows better understanding of European trade and the development of global seafaring and exploration in the early sixteenth century.

Perhaps after many years in the dark the gains of marine archaeological investigation of the 1970s and 1980s will be allowed to inform us all of its worth.



Recording the Studland Bay Wreck. © Poole Museum

Using the Aggregates Levy Sustainability Fund

Mark Dunkley

The Aggregates Levy Sustainability Fund (ALSF) was introduced as a two-year pilot in 2002 to address the environmental costs of aggregate extraction. English Heritage, along with English Nature and Defra, is a major distributor of the fund and supports projects that promote environmentally friendly extraction and transport and reduce local effects of aggregate extraction.

The scheme coincided with the transfer of responsibilities for England's maritime archaeology to English Heritage, so marine projects were targeted to meet both ALSF priorities and strategic agenda for maritime archaeology. During the pilot scheme, English Heritage was able to support initiatives, totalling around £1.5m, to provide research into the assessment, evaluation and potential of the marine historic environment through remote survey and field investigation.

The **High Resolution Sonar for the Archaeological Investigation of Marine Aggregate Deposits** project, for example, examined the potential of state-of-the-art, high-resolution, sonar systems. Sonar systems have been used for over forty years to investigate wreck sites and submerged landscapes, where data provide a back-drop to prehistoric studies. These systems can detect wrecks beneath the seabed and be used to reconstruct Holocene landscapes. However, as the aggregates industry generally targets coarser grained materials, small buried objects or fine-grained layers may lie unidentified.

Lack of detailed structural information of the aggregate is a problem for both archaeologists and the aggregate industry. The project therefore undertook a detailed archaeological investigation of coarse-grained aggregate deposits using sonar systems capable of imaging objects and layers beneath the seabed greater than 0.5m x 0.2 m, down to 15m.

The **Multibeam Sonar on Wrecks** project assessed multibeam sonar surveys for archaeological evaluation and recording of wrecks. This investigation included assessment of the use of sidescan sonar, magnetometer, sub-bottom profiler and single-beam bathymetry survey techniques.



Radial engine from a World War II B-17 Flying Fortress.
(Wessex Archaeology)

The project arose from requests from the aggregate industry and sought to develop and test a structured system for acquiring, annotating, storing and referencing multi-beam survey data alongside other methods. Four Designated Historic Wreck Sites (HMS *A1*, *Hazardous*, *Invincible* and the *Mary Rose*) were added, so this multi-beam sonar technology will also relate to sites designated under the Protection of Wrecks Act 1973.

However, in April 2004, Defra announced a three-year extension to the ALSF pilot. Maritime projects are now separate from terrestrial, and English Heritage expects to disperse around £600k for maritime projects in 2004/5.

Mark Dunkley
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English Heritage, 2004,
ALSF Annual Report 2002-2003

NEW BOOKS ON MARITIME ARCHAEOLOGY

Maritime Archaeology: A technical handbook

Jeremy Green 2nd ed 2004

Elsevier Academic Press 470pp £45

This is a revised version of the edition published in 1989, which was one of the few books that dealt with the practical issues of maritime archaeology at that time. This version is a more complete, detailed and modernised approach and is a 'must-have' publication for students and archaeologists without experience in archaeological excavation. It is also an important reference for more experienced ones.

The seventeen chapters start with 'Introduction to Maritime Archaeology', 'Research' (outlining a method to approach archaeological data and prepare a research design), 'Search and Survey' and 'Conventional Survey' (detailed descriptions of different techniques, with explanatory illustrations), 'Photogrammetric Techniques', 'Site Plan and Geographical Information Systems' and 'Field Photography', techniques which are often reserved to those with a special interest in these fields. Here Green provides a very comprehensive approach. The following chapters ('Excavation', 'Recording', 'Artefacts Drawing' and 'Artefacts Photography') are explained in detail and with simplicity with a full variety of methodologies, including sophisticated methods of excavation and recording. 'Post-Excavation Research', as the author explains 'has been singled out for a special chapter of its own because is the *raison d'être* of maritime

archaeology' and 'explains how to analyse and interpret the archaeological record'. In the last chapters, Green deals with 'Cultural Resources Management', 'Reports and Publications' and 'Legislation'.

This handbook gives the new generation of students a *modus operandi* in the field of maritime archaeology from a technical and technological point of view, with a fluent and comprehensive style, easily accessible to new readers.

Paola Palma



The Barland's Farm Romano-Celtic Boat

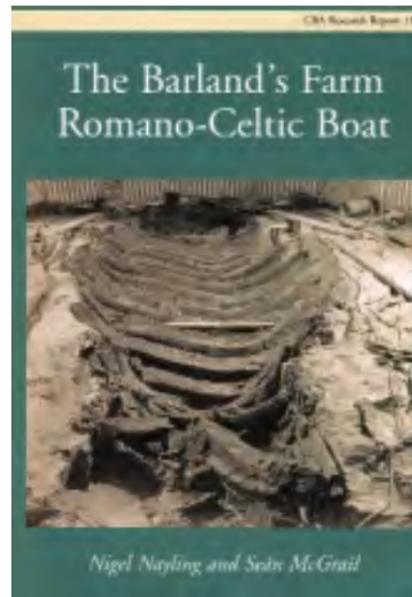
Nigel Nayling and Seán McGrail 2004

Council for British Archaeology Research Report

138 327pp £30

The Gwent levels have proved an extraordinary source of archaeological boat finds, dating from the Bronze Age to the present day. Amongst these is a boat found by the Glamorgan Gwent Archaeological Trust in November 1993. Subsequent work revealed

that these were the remains of a well-preserved and substantial, almost 10m long, boat of the early fourth century. This volume is the result of almost ten years' study, and details the excavation, recovery, analysis and conservation of this important boat. It presents a comprehensive description of the boat 'as found' and considers all aspect of construction and use, from choice of timber to the navigational environment in which it operated. The wider context of the find is also discussed, considering its trading network and the contemporary Roman settlement and economy



where it was found. The volume provides a benchmark for how boat finds of this sort should be studied and presented. It should be of the greatest value to all archaeologists, whether maritime minded or not

David Parham

Sealed by Time: The Loss and Recovery of the Mary Rose
The Archaeology of the *Mary Rose*
Volume 1

Peter Marsden 2003

The *Mary Rose* Trust 203pp £19.95

The first volume in the series covers the history of the ship and the project and includes information on the excavation, recovery and display; other volumes cover the ship, its armament, life on board and conservation of the recovered material.

It must have been difficult for someone who has no experience of working underwater or direct knowledge of the wreck on the seabed to write this volume. Fortunately, Peter Marsden has worked hard at extracting information from the available records and has been sensitive enough to give credit to the key individuals involved. He recognises that the overall success of the project is a testimony not just to Margaret Rule and her team, but also to many unnamed individuals who laboured enthusiastically for no reward other than a chance to be involved in a major archaeological investigation.

The book contains much of interest to both the specialist and the general reader and is well illustrated with useful isometric drawings but, at



times, it contains both too much and too little detail. Which retired naval officer sat on what committee when is excessively well covered, as are the mechanics of the excavation and diving, yet there is insufficient explanation of the archaeological philosophy employed during the excavation. Although there is an account of how three-dimensional recording of the finds and the ship developed on the site, there is no indication of how individual contexts were planned. Divers' sketches are reproduced, but there is no clear indication that these were supported by more formal archaeological drawings. It is unclear whether features were removed in arbitrary spits or whether each context was excavated separately, and whether this was done as an open area excavation or in discrete sectors defined by the ship's structure within each trench.

It is an interesting and well written book, but the volume does not cover the methodology sufficiently to allow archaeologists to reach an informed

judgement on how standards were achieved in such difficult environmental conditions. This is a pity as it would have provided a better balanced introductory volume in this important series of reports on a site crucial to the development of archaeology underwater.

Martin Dean

Future Generations – Conservation of a Tudor Maritime Collection

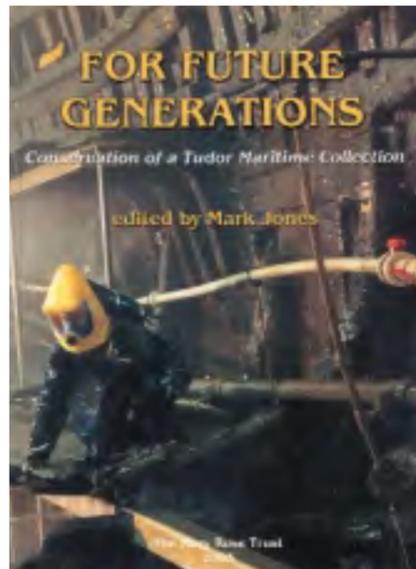
The Archaeology of the *Mary Rose*, Volume 5

Mark Jones (ed) 2003

The *Mary Rose* Trust 145pp £24.95

Painstaking work to conserve thousands of artefacts as well as the vessel itself is the subject of this volume. It is certainly one that I have awaited with eager anticipation, having been employed as a research scientist/conservator for the Trust during the early years of the project. It is one of the few publications concerned solely with conservation, and the *Mary Rose* Trust should be applauded for producing it. I particularly welcomed the inclusion of a chapter on the burial environment and site formation processes, something usually missing from terrestrial publications. More detail on how these seabed processes affected the preservation of materials other than wood would have been welcome.

The conservation-oriented chapters provide useful background on decay and corrosion mechanisms, as well as overviews of typical conservation methods. However, there are missed opportunities. Many of the treatments are discussed and presented in a cookery book format and no real attempt has been



made to assess efficacy of treatment against current condition of the artefacts. As the majority of artefacts were conserved over twenty years ago, there would be considerable benefit in appraising how our endeavours have withstood the test of time. Agreed, the text makes reference to out-of-date techniques, but more emphasis and discussion is required, especially as I suspect that the book will be used as a conservation textbook. The use of hydrogen reduction for the treatment of iron is an area that should have been expanded. I still remember the controversy and debate that followed the decision to adopt the process, but there is scant mention of this in the metals chapter.

The publication would have benefited from much tighter editing, as there are too many instances of misspelling, incorrect citations, repetition of text. And one final comment – I am surprised that Howard Murray, who did so much to establish conservation at the *Mary Rose* is not mentioned in the Acknowledgements.

Ian Panter

English Heritage (and ex-*Mary Rose* conservator)

Boats and Shipwrecks of Ireland

Colin Breen and Wes Forsythe 2004

Tempus Publishing 200pp £17.99

This book promises a broad introduction to the archaeology of vessels in Irish waters through a

review of available evidence, and it does not disappoint. While it is primarily aimed as an introduction for a broad audience there is also information to attract the specialist. The introduction presents the history and development of maritime archaeology in Ireland, plus a range of sources for study, and the character of the coastline.



Then follows a chronological run through of the boat and shipwreck evidence from the prehistoric (7000BC–AD400) to the early modern (1600–1920) period. These chapters are illustrated with examples from historical sources and physical evidence to place boats within their wider context.

The inclusion of a chapter on vernacular boats demonstrates the diversity and tradition of Irish boat building, some of which can still be witnessed today. This highlights the decline in traditional boat construction techniques and the need to record the last surviving examples. The theme of developing maritime archaeology ends with some salutary messages for us all; conservation and preservation strategies require development alongside active investigation programmes.

Julie Satchell

Boats of the World – from the Stone Age to Medieval Times

Seán McGrail 2001 (hb), 2004 (pb)

Oxford University Press 480pp £155 hb, £42 pb

Professor McGrail is the best suited British archaeologist to present a world history of the archaeology of boats, a mammoth task even for him, and this paper back edition is a *tour de force* to

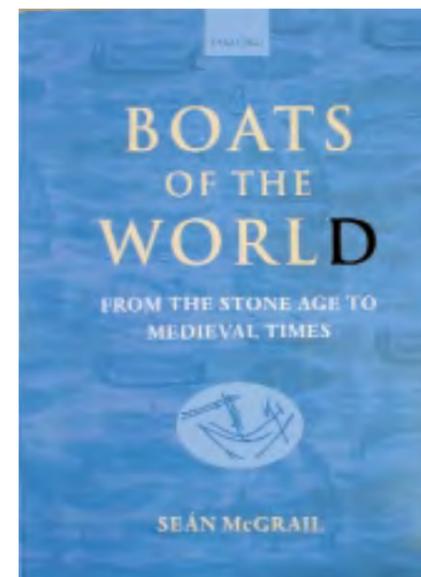
say the least. The book starts with a preface highlighting new sources from the intervening years from publication of the hard back (2001), then leads into an introduction on 'Sources and Themes'. This is followed by ten sections on geographically defined areas. These areas appear to be defined by the author's familiarity of source material rather than actual geography, therefore much of Africa and Russian/Siberia are missing and 'The Americas' are dealt with as one. To present such a study as this in a single volume necessitates a certain expedience with detail and information. Unfortunately this creates an imbalance in the text and one can be left wondering why such boats as those from Pisa are not mentioned, and ethnographic sources are not used for the African continent and Russia/Siberia as they are elsewhere.

That said, this is a book crammed full of information and should serve as the first reference point for anyone wanting to know about boats of every period.

Douglas McElvogue

Senior Research Fellow

Mary Rose Trust



New members

ELECTED	Member (MIFA)	Associate (AIFA)	Practitioner (PIFA)	Student
	David Bowler	Stephen Bakere	Paul Bennett	Marcus Comotti
	Catherine Chisham Diane Fortenberry Marit Gaimster Jackie Hall Fiona MacDonald Dominic Perring	Charlotte Mary Cutland Robert De'Athe Rachel Salter Nick Snashall	Oliver Chadwick Nicholas Paul Hanks Mark Landymore James Looker Giles MacFarland Clare Randall	
TRANSFERS	Hon MIFA	Member (MIFA)	Associate (AIFA)	Practitioner (PIFA)
	Martin Dean Roger Mercer	Andrea Parsons Richard Sermon	Stephen Baker Charlotte Mary Cutland Robert De'Athe Rachel Salter Nick Snashall	Margaret Broomfield Philip Richardson

Members news



Roger Thomas

Roger M Thomas (Head of Urban Archaeology at English Heritage, MIFA 255) was 'called to the Bar' (formally admitted as a barrister of one of the Inns of Court) by the Middle Temple on 14 October. Roger gained a First Class degree in Law from the Open University in 2002, and completed the Bar Vocational Course (BVC) at the College of Law in London in 2004. The BVC is the professional training course which leads towards qualification as a barrister. Roger needs to complete a further stage of training ('pupillage') to qualify to practise. He hopes to specialise in planning and heritage law. Roger says 'It is a great privilege to be able to see a second profession 'from the inside'. The legal profession takes professional conduct and professional standards very seriously indeed'.

Oscar Lopez-Jimenez (on far right)

Oscar Lopez-Jimenez BA, PhD, MIFA (4503) is a post-doctoral Research Fellow at the Department of Archaeology, University of Reading. He studied at Southampton and got his PhD at Complutense, University of Madrid, after research on the archaeological landscapes of the western Iberian peninsula during the Late Bronze Age, Iron Age and early Romanisation. His current responsibilities include developing research on landscape archaeology models, based on fieldwork records from Spain and Portugal, using cartographic and aerial photography analysis and fieldwork. He has also been involved in fieldwork in England, Italy, Egypt and India. Oscar is director of the Cerro del Berrueco project in Salamaca, where deposits date from Upper Palaeolithic to modern times.



The Archaeologist

Members news

Obituary

John Samuels BA, PhD, FSA, MIFA (113), MLI

John Samuels, who died this summer at the age of 51 after a long illness, was one of British archaeology's most colourful members. Born in Kent, he began his life-long study of archaeology with visits to the prehistoric and Roman antiquities of the Downs, and excavations with Brian Philp and Paul Ashbee. He studied Archaeology at Cardiff, with fieldwork at Dragonby in the holidays. After his PhD (on Roman pottery, at Nottingham) he became successively archaeological field officer for Humberside Archaeological Committee, research assistant processing results of Dragonby excavations at Nottingham University, assistant director of Liverpool University Rescue Archaeology Unit, lecturer in archaeology and local history for the WEA and University of Nottingham and Field Monuments Warden for English Heritage. As tutor organiser for the WEA he developed an interest in medieval building, especially the peasant houses of the Nottinghamshire countryside. Publication of these studies led John to set up the Cromwell Press. In 1989 he resigned from his official post, and set up as a consultant archaeologist.

Over the next few years the success of his consultancy, JSAC (John Samuels Archaeological Consultants), led to a great increase of business and a widening of the scope of his work. In 1996 he established his credentials in a complex field by co-writing the widely praised *Archaeology in Law*, and was increasingly sought as an advisor on a range of developments, including the Stonehenge project and the Channel tunnel. He acted as an expert witness at a number of public inquiries, was involved with over thirty major road schemes and published over fifty academic articles in learned journals and publications as well as site and historic building surveys. He came to be renowned as a

combative negotiator and a leader in the new field of commercial archaeology and competitive tendering.

John was appointed by the Redundant Churches Fund and English Heritage to advise upon the restoration of historic monuments, was chairman of Newark Castle Trust, and was involved with the local CBA branch. He advised the Environment Agency on their approach to archaeology and undertook surveys and assessments on their behalf.

John joined IFA in 1983 and was involved with the initial testing of the Registered Archaeological Organisation scheme. He was also influential in building links between IFA and the Landscape Institute.



John Samuels

Members news

Martin Dean BSc, Hon MIFA 34

Martin Dean, Senior Research Fellow at the University of St Andrews and voted a Hon MIFA at this September's AGM, was a professional photographer whose introduction to the past was a weekend course for recreational divers in 1968. This fired him with so much enthusiasm it changed his life. He became a regular volunteer on local society excavations in the Thames Valley, and was involved in underwater archaeological surveys in the UK and abroad. At the same time, with an eye for a career change, he studied for A levels at evening classes. In 1972 he gave up properly paid employment to dig on a Saxon site in Aylesbury, and along the route of the M25, until he was accepted at the Institute of Archaeology in London in 1973. There he reconstituted the Underwater Research Group originally set up by Joan du Plat Taylor, and organised underwater fieldwork, leading to the publication of the UWRG's work on the Cattewater Wreck by Mark Redknap.

On graduation he rejoined former colleagues in Southwark and Lambeth before moving to the National Maritime Museum's Archaeological Research Centre as their Diving Archaeologist in 1981. Amongst his achievements were formation of IFA's first Special Interest Group, the Maritime Affairs Group, and designing the framework for the Nautical Archaeology Society's now internationally-recognised archaeological training programme. In 1986 Martin moved to the University of St Andrews to set up the Archaeological Diving Unit, which provided expertise in maritime archaeology to government departments responsible for the Protection of Wrecks Act. He directed this Unit until his recent retirement.

Martin remembers considerable prejudice against underwater work and the comments made by terrestrial colleagues when he 'outed' himself by admitting this interest, with one eminent colleague at an IFA conference referring to maritime archaeologists as pirates. Fortunately marine archaeology has now entered main stream archaeological research, with many IFA members adding underwater skills to their land-based competencies. This increased professionalism has been matched by advances in ultra high resolution acoustic surveying which, in the muddiest of water, can give clear images of sites and their



Martin Dean

environment. Combining these technical advances with methodologies developed on land improves understanding of the nature and distribution of archaeological evidence on the seabed.

Martin thinks the image of the subject has not been helped by concentration on late post-medieval shipwrecks. The UK is surrounded by submerged prehistoric landscapes that have been largely unstudied and a considerable numbers of much earlier wrecks must be expected. The reason he thinks these have not been seriously investigated is that both landscapes and early wrecks tend to be buried under sediments. Recent advances in acoustic technologies used for imaging buried features and objects mean these data are now accessible. Martin is envious of those about to embark on a career embracing archaeology underwater, for they will be entering at an exhilarating period, when the full potential of the subject can at last be fulfilled.

Members news

Roger Mercer MA, FSA, FSA Scot, FRSE, Hon MIFA 13

Roger Mercer, who retired as heard of RCAHMS this autumn and was made an Hon MIFA in September, was taught by Stuart Piggott at Edinburgh and so was well initiated into prehistory. Wanting a job after graduation he wrote to the Ministry of Public Buildings and Works and was sent straight out to Stannon Down on Bodmin Moor to dig what turned out to be an extremely interesting multi-phased hut circle settlement, hooking him onto the superb archaeology of south west England despite the climatic drawbacks of some of its more exposed sites. Four seasons at Carn Brea with members of the Cornwall Archaeological Society was one of several highlights of excavating in Cornwall, and then as an Inspector of Ancient Monuments he visited more or less every significant site in the south-west, scheduling 2-300 of them every year. His memories of the Inspectorate are warm (not surprisingly – Arnold Taylor introduced him to the world of work with 'I would like you to regard the office just as you would a gentleman's club'), and his excavations, then an important part of an Inspector's work, included a complete Neolithic mine shaft at Grimes Graves. In the end the travelling, research, writing up and a family life were mutually unsustainable and, in 1974 he went back to Edinburgh to teach at the Department of Archaeology.

Edinburgh, besides being the only department exclusively devoted to prehistoric archaeology, was strong on methods and principles and on fieldwork, so twelve long seasons at Hambleton Hill (now ready for publication) were quite feasible alongside numerous prehistoric sites in Scotland. Torness, East



Roger Mercer. Crown copyright: RCAHMS

Lothian, was one of the earliest evaluations, setting out to test a whole landscape, and students were given the opportunity to participate in many other surveys across Scotland and south-west England. He feels he was very lucky to be teaching when a staff/student ratio of 1:7 was normal, and fieldwork and post-excavation were part of the job, but was ready for another change when RCAHMS advertised for a new head in 1990.

'The Commission' was then a low profile, low technology organisation and Roger reckons that he was again lucky to start at a point where rapid change was both vital and could be implemented. It was possible, for example, to get RCAHMS to engage with both the Scottish and the international heritage communities in a way previously not attempted, and to develop positive partnerships with many organisations that have revolutionised RCAHMS programmes and its outreach. As such, it is one of the leading heritage information providers in the UK and beyond, despite a static budget.

Roger has been a warm supporter of IFA since it emerged from the rescue debates of the 1970s. 'It's not been perfect, but it was responsible for bringing some sense to the unholy mess of commercialisation that was unleashed at that time. Can you imagine where we would be without it? Of course, unit directors mainly wanted to act responsibly, but without IFA guidelines and the *Code of conduct* individuals would have had a terrible time. Then there is all the quiet work in the background, on CPD and health and safety for example. What is sad is that original objections from academe left a legacy of academic versus professional distrust. That's something I think we do need to start tackling, for the good of the whole sector'.

Retirement means writing up one remaining excavation and surveys in Caithness and the Cheviots, and more teaching. He is also thinking about a more ambitious publication but claims to intend to relax a bit. He will definitely stay in touch with archaeological colleagues and will welcome all who wish to contact him at home (4 Old Church Lane, Duddingston Edinburgh EH15 3PX, or RogerJMercer@aol.com)

Members news

George Lambrick MA, FSA, MIFA 469

George Lambrick, who stepped down as Director of the Council for British Archaeology this summer was another early starter. As a schoolboy digging in a garden in Abingdon with Derek Keene, the prize find was a fragment of parchment complete with medieval plainsong. Before reading Modern History at Oxford he did a gap year with the then Oxford Archaeological Excavation Committee (soon to become Oxford Archaeological Unit) led by Tom Hassall, digging medieval tenements for Brian Durham and Roman kilns for Chris Young. He admits that as an undergraduate most of his time was spent doing archaeology with the very active Oxford University Archaeological Society, of which he became President. The Society's summer excavation at Farmoor Reservoir in 1974 was an eye-opener for what palaeo-environmental evidence could contribute, demonstrating how a series of Iron Age farmsteads under the alluvium of the Thames floodplain were based on a highly-specialised seasonal pastoral economy. The site started a long-term interest in how human society interacts with the environment – and it also brought a temporary job to write it up with OAU, where George stayed for the next 25 years.

Another of his favourite projects, using volunteer labour, was a survey of the Rollright Stones integrating a wide range of non-intrusive techniques (including studying antiquarian drawings and lichens) with key-hole excavations. This reinforced interest in the work of voluntary bodies and the management of sites, which George continues as Chairman of the Rollright Trust, which now owns and manages the Stones. From the late 1980s, spurred by requirements for environmental assessments and developer funded archaeology guided by PPG16, he masterminded the development of OAU's consultancy business. This led to pioneering work on cultural heritage aspects of environmental assessment, notably that for the Channel Tunnel Rail Link, and early involvement with historic landscape characterisation.

One of George's first projects with OAU had been a pilot study of plough damage to archaeological sites, published by CBA in 1977. Ironically, with Government at last more willing to listen, one of his last projects with OAU was a new plough-damage study for Defra, which he continues to be involved with for the CBA.

He had been involved with CBA for many years before he became Director in 1999, but he had never quite realised the full network which gives the CBA its wide-ranging grasp of issues across the historic environment. Looking back at his five years as director, he emphasises the importance of the CBA's small team of dedicated staff. He feels especially pleased that the Young Archaeologists' Club is on a firm footing; that National Archaeology Days are going from strength to strength; that *British Archaeology* has become an excellent popular magazine without sacrificing standards; and that CBA publications in general are now so attractive and readable. The CBA's championing of digital information services has underpinned a quiet revolution in access to archaeology for all. On the campaigning and conservation side, there has been real progress in promoting archaeology in education and on issues such as protection of plough-damaged sites, maritime archaeology and portable antiquities, all of them long-term CBA issues. The CBA's statutory role in advising on listed building applications is another area where progress is being made towards more co-ordinated action.

George sees his own future as a bit of a leap in the dark, but filled with variety. He will be doing more freelance projects, one already under way with former colleagues at Oxford being a European-funded review of cultural heritage input to environmental assessments, which should lead to new guidelines. He will also be handing on some of his wide experience through more teaching and writing.



George Lambrick

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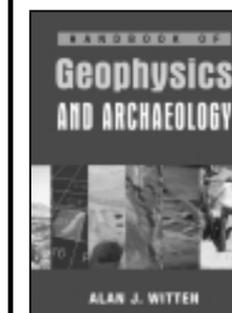
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Alan J. Witten is Professor of Geophysics at the University of Oklahoma.

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