

Understanding Historic Vessels Volume 2

Deconstructing Historic Vessels

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National Historic Ships

Foreword

The United Kingdom is fortunate in possessing a magnificent collection of historic ships and boats, distributed widely throughout these islands, reflecting our rich maritime history and the many innovations in marine technology and design that have been produced here over the past few centuries.

These fine old vessels are a difficult cultural resource to manage because they are built of perishable materials and often operate in a harsh, destructive environment. The first step in establishing a sound management policy is to find out the extent of the resource; that is, how many historic ships there are, where they are based and in what condition they are to be found. We have an excellent foundation on which to work in the form of the National Register of Historic Vessels (NRHV) which was set up over a decade ago by the former National Historic Ships Committee (NHSC). This Register includes data on British built vessels over 40ft in length, over fifty years old, which are based in the UK and are substantially intact (i.e. not degraded archaeological deposits). It contains details of many hundreds of ships and boats, some privately owned, others owned and managed by charitable trusts or museums.

Her Majesty's Government recently set up the new body National Historic Ships, governed by the Advisory Committee on National Historic Ships, to advise ministers on all aspects of historic ships and to actively promote the interests of this heritage sector. The committee is funded by the Department of Culture, Media and Sport. Its membership and its remit are set out as an appendix to this volume.

From among the many hundreds of vessels on the NRHV we have selected a Core Collection of 60 ships and boats which are of such great heritage merit that every effort must be made to protect them for the nation. Added to this is a second group of 155 Designated Vessels which are of considerable heritage merit and which include many vessels of great significance to the regional cultural diversity of our coasts. Together, these two groups comprise the National Historic Fleet.

In the course of building up the NRHV we have visited numerous historic ships and enquired of their owners about the extent to which their vessels were well-recorded. The enquiry revealed a rather mixed pattern. Across the sector as a whole we found some vessels where the record was poor or non-existent, while in others detailed and highly professional records existed. The situation is clearly capable of considerable improvement. It is vital that those responsible for historic ships aim to achieve good standards of recording as an essential step in the preparation of conservation management plans, which are now the *sine qua non* of grant-aid in the heritage sector. We must leave the shoe-box full of photographs behind us and aim for effective, systematically prepared records, capable of providing a sound basis for planning a long and healthy future for our historic ships.

To successfully achieve this aim many owners will require assistance. Fortunately, National Historic Ships is better resourced than its predecessor the NHSC and so, in our first full year

of operation, we have formulated plans to deploy our modest budget in ways where a small outlay might achieve a highly beneficial result. One way is to award grants to owners for essential work (in which we include good recording projects) on their vessels. In order to do this, the Committee has set up a Strategic Development Fund through which a range of awards for essential works have been made. However, we also see the need to establish simple guidelines on the recording process itself, so as to encourage good practice in this area. To this end we have commissioned this small volume, setting out the essential information required to prepare a useful and lasting record of your historic ship or boat. We have tried to keep the advice simple and hope the volume is user-friendly, avoiding too much professional jargon. No doubt you will let us know how well we have succeeded!

It must be recognised that occasions will arise when an historic vessel has fallen into a sad decline and may be beyond salvation and it may become necessary to contemplate the loss of the vessel. In extreme cases of this kind where a ship might have to be broken up, it is still possible to save a valuable record of the ship's structure and operational life. In other words, the process of ship-breaking should be carefully managed to permit a full record of her structure to be made as she is dismantled - in a process of controlled de-construction. Anyone contemplating the need to de-construct a ship should look at this volume as well as the volume on recording. The two works complement each other.

A third volume (*Conserving Historic Vessels*) on the principles and practice of conserving historic ships will be published in 2008. Together these three volumes will amount to a user's guide to the understanding and management of our maritime heritage of ships and boats.

No doubt in these first attempts we shall make mistakes and could do better in future. We therefore intend to amend these texts regularly, making them available via the National Historic Ships website, and we shall produce hard copies of the latest version every few years. We hope they may become well-thumbed working documents, present in every fo'c'sle of every ship listed on the National Register of Historic Vessels.

Robert Prescott
Chairman, Advisory Committee on National Historic Ships
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Contents

1.	Understanding historic vessels – context	7
2.	When deconstruction is appropriate	9
3.	Establishing what is significant about the vessel.....	14
4.	Declaring an intention to deconstruct	16
5.	Preparing a deconstruction plan.....	17
6.	Funding deconstruction	18
7.	Recording the vessel before deconstruction	19
8.	Planning for deconstruction	21
9.	Implementing the deconstruction programme.....	22
10.	Guidelines on the disposal of fixtures and fittings	23
11.	The Vessel Record	26
12.	Depositing the record – the National Archive of Historic Vessels	27
13.	Afterword	28
14.	Bibliography	29
Appendix A	Relevant addresses.....	32
Appendix B	deconstruction checklist	33
Appendix C	National Historic Ships criteria and scoring system	35
Appendix D	Risk assessment framework.....	37
Appendix E	About National Historic Ships.....	40

1. Understanding historic vessels – context

Historic vessels are preserved for many reasons. They can be simply beautiful objects and expressions of the shipwrights' art; they can demonstrate technological advances, or be fine examples of a particular development in ship and boat building; they can be reflections of social or economic factors; they may have associations with heroism, famous incidents, or notable people. Whatever the reason, they are evidence of history and carry information about their working lives and human associations, the phases of their development, their present state, their relevance today, and what their needs are for conservation and, where appropriate, for restoration. Sadly, there are also occasions where vessels cannot survive: they are too dilapidated to be conserved or restored, or there is no one willing to take on such projects. Yet the information they hold may still be important, and to lose such vessels without saving this information would be to miss an irremediable opportunity to broaden knowledge and to hold that knowledge for future generations.

This volume, *Deconstructing Historic Vessels*, maps out the steps leading up to the careful dismantling of an historic vessel which has come to the end of its days, and what to do with the information (and in some cases recovered parts of the ship) emerging from this process.

The first volume in this series – *Recording Historic Vessels* – sets out how to go about creating a record of the quintessential characteristics of an historic ship. Anyone involved in the controlled deconstruction of an historic ship should find this earlier volume full of helpful information. It is required reading before embarking upon any project to Deconstruct a vessel.

Deconstruction will create a body of vital information which will need to be properly archived. Owners are encouraged to keep the records themselves and to make provision for them in the long term. National Historic Ships will continue to hold information on all extant Registered Vessels in the National Register of Historic Vessels (NRHV). Information on ships listed as the National Historic Fleet (Core and Designated Vessels) which have left UK waters or suffered destruction will be held in the newly-established National Archive of Historic Vessels (NAHV).

With the agreement of the owners, National Historic Ships will hold a location list of the records of Registered Vessels which have left UK waters or been lost through destruction.

Vessel owners must read Volume 1 – *Recording Historic Vessels* – before starting the deconstruction process

All volumes of *Understanding Historic Vessels* will be published electronically on our website at www.nationalhistoricships.org.uk. National Historic Ships is happy to discuss specific questions which may arise once owners have read this document, and to advise on possible sources of funding to carry out the work which will be particularly applicable to National Historic Fleet vessels.

2. When deconstruction is appropriate

As with all man-made structures, ships and boats were not built to last forever. However, the issue of dilapidation is especially acute for vessels. Unlike buildings, the accepted working life for most vessels is only some 30 years: they were not and still are not built for the long term. For many vessels of intrinsic historical importance, there will come a time when the cost of conserving or even simply repairing them becomes unaffordable. Unless the burden can be passed to another willing organisation, such vessels have no sustainable future.

In such circumstances, there are five principal options (although in practice elements may be combined):

i. **Passive Abandonment - Demolition by Default**

Passive abandonment involves leaving nature (and in some circumstances vandalism) to demolish a vessel with little or no attempt to retain any of the vessel's fabric, fixtures and fittings or to record what is there. This course will be the most likely where owners with limited resources are not able to meet the costs or give the time necessary to take on a more active process. However, there are increasing health and safety and environmental pressures against allowing abandonment to happen, which may result in forced or premature demolition – option 3. Passive abandonment (particularly if not preceded by thorough recording) is a failure to preserve historical significance.

ii. **Active abandonment - Preservation by Sinking**

Active Abandonment is a positive process which involves taking the decision to abandon the vessel concerned in a particular place and in particular circumstances for wider benefit. Vessels can be positioned in tidal waters to form features and habitats which are revealed at low tide, or submerged completely as underwater wrecks or reefs. An example of the latter is HMS *Scylla*, the last frigate to be built in Devonport Dockyard, and which has now been sunk deliberately to form a diving reef off Plymouth. Abandonment in

this way can preserve ships for a period, allows continued access in some form and in the long term delivers marine environmental benefits.

The costs and issues relating to preservation by sinking are of a different order to those relating to the destruction resulting from passive abandonment. Meticulous planning will be required to meet the various legislative and environmental demands which active abandonment will bring. Costs will be significant, and the time-scale for implementation long. Due regard must also be taken of the vessel's construction characteristics (in particular for wooden hulls) – vessels held together by ferrous fastenings will raise different issues and will probably collapse at a faster rate than those with non-ferrous fastenings. There will also be environmental differences in terms of potential pollution and the creation of specific marine environments.

The benefits are considerable. Firstly, the ultimate loss of the vessel will be over an extended period of time, allowing for continued access (by divers, remotely controlled camera vehicles, glass-bottomed boats, and in the case of inter-tidal positioning possibly by land). Secondly, as HMS *Scylla* has demonstrated, the resulting carefully created environment can be highly beneficial for encouraging diversity in marine life.

Nevertheless, HMS *Scylla* is exceptional, and active abandonment will not become a widely used method of preservation. Formal consultation with the relevant agency, e.g. English Heritage, Historic Scotland, CADW or the Northern Ireland Office, which share responsibility for all registered wreck sites throughout UK territorial seas is essential, as is formal consultation with the relevant navigation or harbour authorities. At the present time some 66,000 wrecks come under the remit of English Heritage and it does not have the resources to look after deliberately wrecked shipping as well. There would be no guaranteed statutory protection for such vessels, and of course there are health and safety issues around diving on deteriorating structures. Substantial costs attach to ensuring that vessels sunk deliberately for diving purposes are maintained in such a way that this activity can be undertaken safely.

Consequently National Historic Ships strongly discourages preservation by sinking unless there is a prior consent from English Heritage and all relevant authorities in place.¹

Advice on the appropriate navigation and harbour authorities will need to be sought locally.

iii. Demolition – Unconsidered Destruction

This is the breaking-up of a vessel without a programme for recording in detail what is done. This may be accompanied by some attempt to retain parts of the vessel for interpretation and display or for sale (possibly for re-use in other vessels). Like passive abandonment, it is an undesirable option.

iv. Deconstruction – Preservation by Sectioning

When it is no longer practical to save the entire ship, a section can still evoke something of the essence and scale of the historic vessel, but in a more manageable way. Preservation by Sectioning is the careful disassembly or cutting of the hull into pieces, either to enable a reconstruction at some future date or to preserve a significant proportion of the structure to convey something of the original shape, size and configuration. Sectioning can involve either taking cross-sections of the vessel across the beam or along her length, or by removing and saving major features of the vessel such as deckhouses, the bridge or major pieces of equipment. No matter how temporary the retention of such sections, it is always preferable to the complete dismantling of a vessel.² It is of course imperative to identify a willing recipient for the sections, organise (and fund) transport and secure funds for consolidation and stabilisation before the actual sectioning work commences.

¹ Contact addresses for the national heritage offices are given in Appendix A.

² *Turbinia*, Charles Parson's experimental craft, is an illuminating case study. Sectioned in 1927 by Hawthorn Leslie, the bow was transported to the Science Museum in London (where it was further reduced in size). The stern, used as an apprentices' shelter, was later retrieved and the two halves reunited (although the midship section was lost forever) and the vessel is now restored and on display as a 'complete' vessel in Newcastle Museum of Science & Industry.

v. **Deconstruction – Preservation/Replacement by Record**

Preservation/Replacement by record is achieved through a controlled dismantling programme (once the significance of a vessel is understood) in order to add to the maritime record of the United Kingdom and to ensure that technically or historically significant elements of the vessel are preserved for display and for re-use in other vessels where appropriate. It may include preservation by sectioning.

Preservation/Replacement by Record is not a cheap option, not least because the dismantling of the vessel must be undertaken by people who specialise in and understand ships, preferably with knowledge of the particular type of vessel in question. The work may well require supervision by experts who can bring a mix of naval architectural and archaeological experience of how ships are analysed and taken apart. Health and Safety considerations also contribute to the high costs of this option, especially for larger ships.

Where a vessel has no sustainable future National Historic Ships recommends Deconstruction resulting in Preservation/Replacement by Record wherever possible because this ensures that the fullest record of a vessel possible is compiled.

It is recognised that the level of recording before breaking up (and the approach adopted for breaking up which may allow further recording) should be appropriate to the characteristics of the vessel under consideration. The approach should reflect the vessel's level of importance, based on the eleven criteria,³ which are encapsulated in the National Register of Historic Vessels' (NRHV) scoring system; each case will be judged on merit.

Where retention, including laying-up, is no longer an option, deconstruction is the essential course of action for all vessels in the National Historic Fleet (Core Collection and nominated Designated Vessels). These vessels must be properly deconstructed and the information retained through the fullest possible record of all aspects of the ship.

³ See Appendix C.

The approach for Registered Vessels and vessels not on the NRHV but whose owners wish to dispose of them in a responsible way can be far simpler. Much can be achieved by two people who have some experience of ships, surveying with a level, tape, and a good camera. For larger vessels at least two experienced surveyors will be required, using computer measuring equipment supported by the appropriate software. Surveying vessels of over 100 feet is a very different thing from those of 40-50 feet. Likewise fully decked vessels are considerably more challenging than half decked or open vessels.

Although a full deconstruction programme may not be feasible for all vessels on the NRHV, it is strongly recommended that all owners take whatever steps they can to preserve information about their vessels, even if this is simply creating a photographic record supported by notes.⁴ If practical, some element of the vessel should be preserved too.

Whichever form of deconstruction is adopted, the information gained will then form a definitive archive, which can be used to contribute to publications, exhibitions or the building of a first class model or replica. Owners or those responsible for the deconstruction programme must liaise with the relevant local authorities, and environmental agencies to ensure that all regulatory and legislative requirements are met. These may include planning issues, special licenses, and meeting requirements around the disposal of potentially environmentally damaging materials.

If a vessel is the subject of a proposal to deconstruct, owners are asked to notify National Historic Ships, to establish what support can be given and to ensure the National Register of Historic Vessels is updated. This approach is set out in more detail below.

⁴ A comprehensive series of photographs of features from three view points where distances from objects are noted can be fed into computer programs such as Rhino from which plans can be generated. See *Recording Historic Vessels* which forms Volume 1 of *Understanding Historic Vessels* for details of the recording process.

3. Establishing what is significant about the vessel

The first step in considering deconstruction is to ensure that the historical significance of the vessel is fully understood. In some cases the vessel will already be well documented, but in others there will be a great deal to do before deconstruction can begin. *Recording Historic Vessels*, the companion volume to this one, is essential reading in order to gain a full insight into the process. An understanding of a vessel's significance is derived from:

- i. Research into the vessel's career, including a search for existing documentation, plans, lines etc., so that the vessel's present condition can be seen in relation to of its original form
- ii. Research into the history of the vessel type
- iii. A survey of the fabric, fixtures and fittings to establish which parts belong to different phases of the vessel's history
- iv. Research into the vessel's geographical context
- v. A knowledge of the uniqueness of the vessel, both historically (which includes social and economic associations) and technically
- vi. Handling characteristics

Such research is undertaken in archives, museums and libraries, based on the study of local newspapers, logbooks, diaries, letters, and on interviews with former owners and crew.

The goal of this research is to have a very clear idea of what is significant about the vessel, which we recommend is condensed into a short (e.g. no more than two sides of A4) *Statement of Significance* which sets out:

- i. The vessel's uniqueness or typicality in terms of its type and function, for example, a) one of three surviving examples of a zulu fishing boat [type]; b) a sole survivor of a research vessel [function]
- ii. The vessel's uniqueness or typicality in both a national and a local context (for example, the last local type of fishing boat to be built in a particular yard, last of its type to trade / operate in its locality or a vessel such as a lifeboat involved in a famous rescue on a particular stretch of coast.)
- iii. The vessel's contribution to a broad understanding of maritime history

- iv. Historical associations
- v. The vessel's contribution to technology (for instance, the sole surviving example of a particular type of propulsion unit)
- vi. Any parts of the fabric, fixtures and fittings that are:
 - unique and of technological or social / economic importance
 - typical of the class of the vessel but now rare
 - have demonstrably important social / economic associations

The *Statement of Significance* will form the basis of the *Deconstruction Brief*.

4. Declaring an intention to deconstruct

Given the significance of the vessels in the Core Collection and Designated Vessel List which make up the National Historic Fleet, owners or those responsible for the vessel must inform National Historic Ships of an intention to deconstruct in order that advice can be given, options explored and to ensure that the deconstruction guidelines are implemented. Once it has been established that neither the owner nor National Historic Ships can see any alternative future for the vessel, the owner should then make a formal public *Declaration to Deconstruct*. In doing this it is very important that the owner states clearly in the Declaration the reasons which have led to this decision.

The purpose behind such a declaration is to alert the sector so that if there are any parties interested in taking on the vessel, thus avoiding deconstruction, such an opportunity is not lost. The Declaration also ensures that National Historic Ships is formally aware of any intentions, and can take the appropriate action and offer advice. In some, albeit rare, cases vessels will be subject to protection under Listed Building legislation. Some fall within Conservation Areas or World Heritage Sites. It is therefore vital that the status of the vessel concerned is fully understood, along with the responsibilities and requirements arising from local, national, European Union, or international regulations and legislation.

Where a vessel is owned by a museum, the Museums Association's adopted guidelines on object disposal from museum collections must be followed (or the risk of de-registration be faced). It is also good practice for other trusts and organisations to follow the guidelines. This structured approach is particularly important for the 'portable' maritime heritage objects found onboard vessels. The Museums Association regularly refines its policy on disposal in order to reflect developing heritage demands and the latest technical advances: vessel owners will therefore need to ensure they are working from the current policy.⁵

As well as ensuring that the Declaration is sent to National Historic Ships, owners must make every effort to disseminate the Declaration to as many potentially interested parties as possible. National Historic Ships will assist by publishing the Intention to Deconstruct on our website and by directly informing relevant organisations.

⁵ See <http://www.museumsassociation.org>.

5. Preparing a deconstruction plan

Once the declaration has been made, and a reasonable opportunity given to other interested parties to find an alternative solution, the owners should prepare a deconstruction plan. This should set out:

- the reasons why the decision has been made
- the steps taken to ameliorate the need to deconstruct
- the Statement of Significance and how this has informed the deconstruction plan
- the deconstruction method(s) selected from the list in Section 2
- the management arrangements and methodology through which the chosen route of deconstruction will be carried out
- Any health and safety and environmental issues arising from the Deconstruction programme and the steps being taken to ameliorate these to meet regulatory and legislative requirements
- the disposal strategy for recyclable elements
- the identification of any samples, fittings and structure (including sections) to be retained
- the identified repositories for any samples, fittings and structure (if appropriate)
- the identified repositories for the resulting archive
- the anticipated costs associated with the deconstruction process with a plan for meeting these

While we urge owners to make every effort to identify sources of funding to help meet the costs of the Deconstruction process, we recognise that grants and donations will be difficult to find and that lean processes will usually be the norm. It is a question of finding the correct balance between ensuring the right level of information is secured and making the process impossibly onerous.

6. Funding deconstruction

The costs of recording and deconstruction will vary according to the complexity of the vessel concerned. In many cases, additional resources would help owners undertake the task more effectively. National Historic Ships cannot directly fund the whole costs of deconstruction but we can consider awarding pump-priming grants which can be used as matched-funding for grants from other sources (for example, the Heritage Lottery Fund, though at present the HLF has not declared itself ready to fund deconstruction). We can also advise on grant applications and give pre-application advice on appropriate bids.

It must be stressed that the Heritage Lottery Fund will not give a grant on heritage merit alone, however significant. Its prime aims are focused on encouraging more people to be involved in and make decisions about their heritage and to ensure that everyone can learn about, have access to and enjoy their heritage. Therefore it is imperative that potential applicants look closely at the HLF's published priorities and guidelines to see how their deconstruction project might match these wider priorities.

Owners should also try local charitable funds. Local appeals and fundraising may also be appropriate.

Where grants are awarded, we would expect to work closely with the funding body and the owners by agreeing and monitoring quality standards.

7. Recording the vessel before deconstruction

The ideal is to ensure that, once the vessel no longer physically exists, there is a record of her, or of her type, in sufficient detail that a model, replica and cross-section could be made, accurate in all details, including scantlings and construction method.

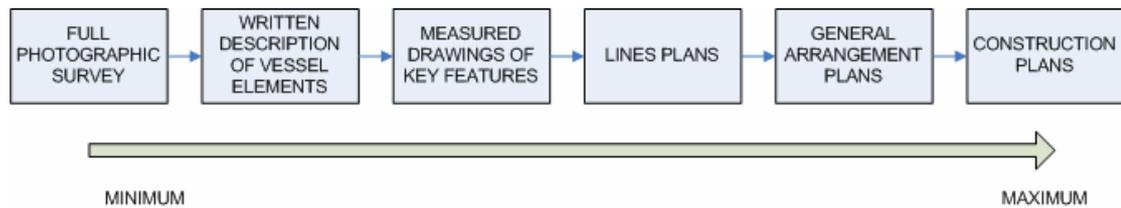
This will almost certainly mean that before the vessel is taken apart, most of the survey work will have been carried out as set down in *Recording Historic Vessels*

The additional detail which will become apparent through the deconstruction process will be fastenings, and other matters of construction detail. In some cases (particularly ferrous metal vessels) the properties of the hull material will be important. Iron ships have different characteristics from steel ships and the mild steel of today is not the same that from the late 19th century, whilst pre-nuclear steel which has not been exposed to modern atmospheres has different properties from contemporary steel. Although full analysis is expensive, preserving samples keeps the option open. It should not be assumed that materials are uniform: plates and rivets may be different compositions, and the sheer strake was often of higher strength than the rest of a ship's side.

Deconstruction will also demonstrate how the vessel has deteriorated, wood has rotted, metal has corroded, or GRP broken down. Such information will be invaluable in the development of better methods for the conservation of historic ships.

Research into the significance of the vessel will have revealed how much information already exists both about the vessel and its type, and this will help to determine the appropriate level of recording. For example, if the builder's lines plans already exist and the general configuration of the vessel has not been altered in a major fashion, then it is unnecessary to create another set of plans. If no such plans exist, a full survey may be necessary. However, a full measured survey for larger vessels can cost tens of thousands of pounds and the level of recording will be determined by both the importance of the vessel, and the amount of funding available. The diagram below identifies the 'recording continuum', from the minimal photographic record to a full set of construction plans.

Figure 1: The continuum of recording



The appropriate survey levels are set out in *Understanding Historic Vessels Volume 1: Recording Historic Vessels*. These should be used as the checklist to ensure that the necessary steps have been taken to win as full an understanding of the vessel as is possible. Volume I also makes recommendations for the recording formats and storage of the records.

8. Planning for deconstruction

Research undertaken in order to write the Statement of Significance will have identified any elements of the ship's fabric which warrant preservation or re-use in other vessels. These elements may include fittings, lights, switches, telegraphs, steering gear and basic materials such as frames and decking. In preparing for deconstruction, owners should establish how such elements are to be removed safely and how they are to be preserved. If the owners do not intend to retain the elements themselves, all arrangements for the legal and physical transfer of these elements to a responsible third party should be in place before deconstruction commences. Contact should be made with local, regional and national museums and heritage centres to establish whether there is interest in retaining parts of the vessel and/or the vessel record. Owners of vessels who are registered museums should, of course, follow the Museums, Libraries and Archives' approved guidelines on disposal. Subsequently, items not taken on through bodies such as these can be offered to those owning or interested in historic ships on the open market.

Important information about how a vessel is constructed – for example scantlings of members – may be revealed as the vessel is dismantled. In cases where little or no information is known about the construction, consideration should be given to employing specialists to oversee the deconstruction.

Consideration should be given to including samples in the vessel record. Cross sections of exemplar component types are a useful resource: they not only give us accurate dimensional information, but also confirm timber species types, GRP construction, plate thicknesses, etc. as well as metallurgical information. Identification of what samples to collect and – crucially – how they are to be stored, is part of the deconstruction plan. There will also be a requirement for a risk assessment.

9. Implementing the deconstruction programme

Where affordable the full deconstruction programme should be undertaken by experts who have acceptable levels of qualifications and experience and who know therefore both the deconstruction processes and the characteristics of the ship to be deconstructed. Dismantling / demolition contractors may not possess such qualifications. If these skills cannot be afforded, owners, or those who have the best understanding of the significance of the vessel, should work with the contractors in order to ensure they make every effort to fully record the process. At its simplest this record should be a photographic and film record undertaken throughout the deconstruction process; at its best, this should be supported by a set of measured drawings of all components.

Deconstruction is likely to be in two parts. The first will involve the sensitive and sympathetic removal of fittings and furniture; the second will comprise the deconstruction of the hull and structure according to the method chosen (as listed in Section 3). In both cases, where the preparatory work has identified which parts are not required for display or archive purposes or by the owner, they could be sold to help pay for the work if this does not conflict with the owning institution's disposals policy (see Section 10 below). Good preparatory work will have identified the potential of these items for re-use in other projects, either known, or expected in the future.

10. Guidelines on the disposal of fixtures and fittings

10.1. To sell or not to sell

If an historically significant vessel has survived for more than 50 years, it generally indicates that considerable efforts and resources have been expended in preserving it. All those who worked on it from the moment it ceased its working life did so in the expectation that the vessel would be preserved in perpetuity. Clearly, if deconstruction is being considered, that expectation is being disappointed. However, the current guardians of the vessel still have a duty of respect to the generosity of the past in the disposal of any fixtures and fittings.

Within the museum world there is a strong presumption against the sale of artefacts. In a culture where substantial collections have been built on the generosity of donors, selling items undermines public confidence and may cause future donors to think twice. However, the situation with historic ships is rather different. If deconstruction is being considered, it is almost certainly because there are no longer the financial resources to support the vessel and the organisation responsible for it may be in debt. In such circumstances, if all efforts to pass the vessel on to other, better-resourced owners have failed, there may be a legal duty to dispose of any parts of the vessel at the most advantageous price. Furthermore, if any grants were made to support the vessel, it may be a legal requirement for these to be repaid to the grant-giving organisation if the vessel is destroyed. Selling the fixtures and fittings may be the only means by which this can be done.

First, however, the vessel owners must determine whether they are legally free to dispose of all items on and relating to her. Have any items been loaned to the vessel? Are there any covenants relating to any part of the vessel? Were any special arrangements made with donors? It is essential to establish the legal status of every item on board and in cases of doubt it may be necessary to take specialist advice.

10.2. Practicalities of dispersals

The Intention to Deconstruct that the owner has issued is the first element in a media plan, but consideration must also be given to how to communicate the intention and its consequences to others with an interest in the vessel – for example, Friends' organisations. It is possible that individuals only tangentially connected to the vessel may have an interest in what becomes of her fixtures and fittings.

All vessels will have some fixtures and fittings of interest to others: the challenge is to manage this interest.

- The Intention to Deconstruct will notify the historic vessel community of the prospect of fixtures and fittings becoming available. Who will act as the point of contact for all enquiries?
- Is there a clear understanding with the company demolishing the vessel which items the owner is retaining for disposal elsewhere (including sections)?
- Are arrangements in place for the storage of fixtures and fittings?
- Are timetables for the removal of items from the breakers' yard and from the owners' storage facility understood by all?
- Are there contingency plans for a potential recipient of fixtures and fittings changing their minds?

10.3. Who benefits?

As noted above, there may be a legal obligation to dispose of fixtures and fittings (and sections of the vessel) for the best price. In such circumstance, the owner has no choice over the recipient of the items. Where this is not the case and wherever possible National Historic Ships would urge gifting items directly to other historic vessels rather than selling. Very few historic vessels are prosperous and gifts will mean that money can be spent

elsewhere. If items are sold, National Historic Ships urges that they are sold directly to other historic vessels rather than to brokers.

There may be several expressions of interest in a particular fixture or fitting from other vessels. National Historic Ships does not have a view on whether publicly or trust-owned vessels should have priority over privately owned vessels but we recommend that owners weigh up the following questions:

- On which vessel would the item be most historically appropriate?
- Which vessel would offer the greater public access?
- Are all contesting vessels in a sound financial state?

Owners should also be satisfied that the presence of items from their vessel are properly recorded and acknowledged by the vessel into which they will be incorporated. If they are 'lost', not only could future researchers of either vessel be misled but also the deconstructed vessel will slip even further from memory.

In exceptional circumstances, owners may wish to consider loaning fixtures and fittings to other vessels. This should only be considered if there is a demonstrable benefit – a temporary loan until another more appropriate vessel is ready to take the items for example. Lending presents an administrative burden to both the lender and receiver and lenders from a deconstructed vessel must be confident that there will be an organisation in existence during the length of the loan to which the item can return if necessary or at the very least monitor its condition. Loans should be for a fixed period and should not be used to wield influence over another organisation.

For disposals, once agreement has been reached on the recipients of the material, a formal paper should be drawn up to transfer title – that is passing all responsibility and copyright to the new owner. Loaned material will also require a signed agreement stating all the agreed terms and conditions.

All disposals, loans and the recipients of disposals and loans should be documented and incorporated into the Vessel Record.

11. The Vessel Record

The *Vessel Record* will comprise all historic photographs, plans, models, logbooks, letters, bills and oral histories gathered during the course of custodianship of the vessel and during research undertaken to establish her significance. Added to this will be details of all recording work undertaken prior to and during the deconstruction of the vessel, and notes which give the location within the ship of any parts of the vessel which have been preserved. The record will also need to show where all the preserved parts are being stored, and subsequently where they are displayed.

The record should be accompanied by an index and inventory of its contents to enable future researchers to access the information easily. Storage conditions should meet basic conservation standards in order to ensure the longevity of the archive.

12. Depositing the record – the National Archive of Historic Vessels

The vessel record is only useful if it is properly indexed and if its location is widely known and easily accessible. Accordingly, National Historic Ships intends to hold a central record of every deconstructed ship formerly on the Core Collection and Designated Vessels Lists of the NRHV, which will be known as the National Archive of Historic Vessels, as the sister record to the NRHV which will continue to hold the information on extant vessels. Former owners also may wish to retain records, which in due course may be deposited with a local museum, archive repository or similar body. National Historic Ships will also hold a register of where all known records of deconstructed and demolished vessels are held so that interested parties can be informed where the information can be accessed locally. Identifying an appropriate local repository should be undertaken as early in the deconstruction process as possible. We may be able to advise on this.

The benefits deriving from traditional paper records incorporating text, plans, line drawings and photographs are that such records are practical, affordable, durable and not dependant upon technologies which over time become obsolete. The loss of the BBC's 1986 Domesday Project information through the demise of equipment which could read it is a salutary tale. However, it is important to learn from such lessons and from contemporary archive practices in an age when most research (academic or commercial) is increasingly conducted from online sources.

Where, in addition to the information held in the National Archive of Historic Vessels, an archive is to be housed locally by an appropriate ship association, or by a private owner, National Historic Ships can offer storage advice, and may be able to help with funding for the purchase of conservation boxes and fireproof cabinets. Grants can only be made where provision for a reasonable level of public access is made.

Vessel owners are asked to notify us of what records they hold and we encourage them to make their information available as widely as possible.

13. Afterword

The demise of an historic vessel diminishes the physical evidence of our maritime past. The loss will be felt most keenly, of course, by the owners, who will have strived, probably for many years, to secure a sustainable future for the vessel. Once hope of a future is gone, it may be difficult to summon the enthusiasm to deconstruct the vessel in the time-consuming way described here. However, in creating a Vessel Record, the memory and knowledge of the vessel is preserved for other owners, for historians and for anyone passionate about our maritime heritage. Creating this legacy is a final respectful act, the results of which will benefit the historic ships community, and the nation as a whole.

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Appendix A Relevant addresses

English Heritage

North East Region
Bessie Surtees House
41 - 44 Sandhill
Newcastle upon Tyne
NE1 3JF
Tel: 0191 261 1585

London Region
1 Waterhouse Square
138 - 142 Holborn
London, EC1N 2ST
Tel: 020 7973 3000

North West Region
Canada House
3 Chepstow Street
Manchester, M1 5FW
Tel: 0161 242 1400

East of England Region
Brooklands, 24 Brooklands Avenue
Cambridge, CB2 8BU
Tel: 01223 582700

Yorkshire Region
37 Tanner Row
York, YO1 6WP
Tel: 01904 601901

South West Region
29 Queen Square
Bristol, BS1 4ND
Tel: 0117 975 0700

East Midlands Region
44 Derngate
Northampton, NN1 1UH
Tel: 01604 735400

South East Region
Eastgate Court
195-205 High Street
Guildford, GU1 3EH
Tel: 01483 252000

West Midlands Region
112 Colmore Row
Birmingham, B3 3AG
Tel: 0121 625 6820

Historic Scotland

Longmore House
Salisbury Place
Edinburgh, EH9 1SH
Tel: 0131 668 8600

CADW

Welsh Assembly Government
Plas Carew
Unit 5/7 Cefn Coed
Parc Nantgarw
Cardiff, CF15 7QQ
Tel: 01443 33 6000

Northern Ireland

Department of Culture, Arts and Leisure
Interpoint
20-24 York Street
Belfast, BT15 1AQ
Tel: 028 9025 8825

Appendix B Deconstruction checklist

Prior to deconstruction

- Alert National Historic Ships
- Inform owners of similar vessels, if known (as potential recipients of equipment, fittings, etc.)
- Complete all research (including documentary and oral evidence)
- Formalise the assessment of significance in a statement
- Produce a 'working reference' copy of the research for use on the vessel during deconstruction
- Identify all items and structures significant or useful enough to be retained, find and agree locations where these will be stored, displayed or recycled and obtain commitments about how all costs of removal and transport will be met
- Identify a suitable archive for the Vessel Record
- Agree an appropriate deconstruction methodology (e.g. for numbering component parts of a structure to be retained)
- Carry out a full Risk Assessment
- Obtain method statements from contractors
- Ensure all contractors – breakers, hauliers, crane operators, packers, etc. – understand the objectives of the deconstruction and which elements are to be retained
- Enlist the internal team (we recommend a minimum of three) who will attend the deconstruction process
- Identify the appropriate recording methodology
- Assemble appropriate equipment for recording
- Ensure enough packing materials are available for small items
- Check health & safety requirements
- Check tides, weather and location
- Make a reconnaissance visit to the site to identify any physical access problems, amenities and shelters and review the Risk Assessment in the light of what is found
- Secure all permissions for access to site as well as to the vessel

During deconstruction

- Maintain a logbook and/or video log of the deconstruction process
- Check existing documentation for gaps which can be filled through deconstruction
- Review and re-emphasise the aims and objectives of the deconstruction to all contractors
- Review deconstruction methodology
- Review health & safety requirements
- Check all safety equipment regularly
- Identify a safe working area to compile notes and images and for temporary storage of items for retention

Post deconstruction

- Ensure all retained items and structures are securely despatched to new locations
- Write up all new findings, including the locations of retained items / structures
- Incorporate the write-up into the Vessel Record
- Transfer the Vessel Record to the appropriate archive or National Historic Ship

Appendix C National Historic Ships criteria and scoring system

SCORE		0	1	2	3	4	5
1	Technological innovation	contains no design innovation of importance	contains one important design innovation	contains two or more important design innovations	add one point for identification of the designer of each named innovation (up to 4 additional points)		
2	Exemplary status – type and construction	very poor exemplar – type and construction	poor exemplar – type and construction	poor exemplar – type or construction	mediocre exemplar – type and construction	good exemplar – type or construction	good exemplar – type and construction
3	Exemplary status – function	very poor exemplar of functional category	poor exemplar of functional category		mediocre exemplar of functional category		good example of functional category
4	Aesthetic impact	no aesthetic appeal	no appeal to popular imagination; no design content	weak popular appeal; no design content	considerable popular appeal; no design content	high popular appeal; some design content	high art/design content
5	Historical associations with people and events	no historical associations	solely local significance	solely regional significance	regional significance with elements of national significance	national significance with elements of international significance	clear international significance
6	Socio-economic association	no socio-economic associations	solely local significance	solely regional significance	regional significance with elements of national significance	national significance with elements of international significance	clear international significance

SCORE		0	1	2	3	4	5
7.	Percentage of originality of the fabric of vessel, (hull & internal fittings)with reference to the end of her normal working life	<5%	<21%	21 – 40%	41 – 60%	61 – 80%	81 – 100%
8.	Condition	Integrity now being lost	Serious cause for concern over future integrity of vessel	some cause for concern	reasonably stable condition	condition suggests a secure future for the vessel	very good condition with regards to strength, infestation and care of fabric
9.	Age (date of build)		50-99 years old	100-149 years old	150-199 years old	200-249 years old	250+
10.	Scarcity of vessel type	100 plus	51 – 100 surviving examples	11 – 50 surviving examples	6 – 10 surviving examples	2 – 5 surviving examples	unique survivor
11.	Scarcity of vessel by function	100 plus	51 – 100 surviving examples	11 – 50 surviving examples	6 – 10 surviving examples	2 – 5 surviving examples	unique survivor

Criteria

The above are applied to vessels which are:

- Over 50 years old
- Over 40 feet (12.39 metres) not including the bowsprit
- Designed and built in the UK
- Based and operating in British Waters
- Substantially intact

Appendix D Risk assessment framework

The following is National Historic Ships' generic risk assessment form for visiting historic vessels, provided here for reference only. Circumstances in which vessels are recorded vary enormously, and those undertaking this work must take all precautions to ensure their safety and those of others. National Historic Ships bears no liability for any omissions or the interpretation of this form.



Risk Assessment for undertaking visits to static vessels

Vessel name:
number:

Location:

Registration

Main Hazards:

- | | |
|--|---|
| <ul style="list-style-type: none"> ▪ Falling in the water ▪ Weil's Disease ▪ Head injury from low deck heads or rigging ▪ Transport from base to location of vessel ▪ Falling whilst boarding vessels/scaling ladders/rigging | <ul style="list-style-type: none"> ▪ Slip/trip/fall whilst on vessel ▪ Tetanus from rusty fittings ▪ Electrocutation ▪ Asbestosis |
|--|---|

Persons at risk:

- | |
|--|
| <ul style="list-style-type: none"> • The vessel owner/custodian • Workers from the yard/marina where vessel is moored • Members of the public • Owners of other vessels moored nearby • Any of the National Historic Ships Unit team/Advisory Committee member taking part in a visit |
|--|

Pre-risk Factor (high):

Likelihood Rating 3

Severity Rating 5

Risk 15

Workplace Precautions:

Before each visit

1. The employer should implement a safe system of work with a step-by-step guide to organising and carrying out a vessel visit which covers all the safety aspects listed here. For the initial visits, employees should be supervised to ensure that the safe system has been implemented and disciplined if any areas have been neglected.
2. The employer should ensure that all employees undertaking vessel visits are properly briefed about the potential risks.
3. The employer should ensure that all employees are appropriately insured for the work they are going to undertake.
4. Ensure that employees always work in pairs or more and do not visit vessels alone.
5. Ensure that every employee is a competent swimmer.
6. Where vessels are under the jurisdiction of a company, the employer should ensure that they have an adequate health and safety programme to cover his employees during the visit.
7. A member of the team should contact the custodian of the vessel to enquire whether there are adequate toilets, washing and eating facilities on site, as well as the location of the vessel and likely state of tide for the visit.
8. An evaluation must be made on the likelihood of the presence of Asbestos.
9. The weather forecast for the area should also be checked beforehand and visits should not be undertaken in bad weather conditions unless the vessel is securely moored in a safe environment
10. The employer should inform employees that it is important to provide written notification as early as possible if they are pregnant or breastfeeding. An employee in either situation should not be taken on a visit where they may be exposed to travelling, awkward spaces, lifting or straining and inadequate facilities. Alternative office work should be offered.

During each visit

Before the site visit starts, the original Risk Assessment should be reviewed to ensure that all identified hazards (dangerous access, presence of asbestos etc) have been ameliorated.

1. Ensure that employees are provided with the following personal protective equipment free of charge:
 - Protective clothing (wet weather gear with high visibility markers, extra protection over knees and added warmth) – wear in bad weather or on vessels in poor condition
 - Face masks and protective gloves
 - Slip resistant shoes with steel capped toes – to be worn at all times
 - Lifejackets of at least 50 Newtons, serviced every two years. Employees should be trained in the use of these and they should be checked prior to each visit - to be worn on any vessel not moored alongside, or whilst in a dinghy.
2. A visit pack will be carried at all times by the employees whilst on a visit. This should contain a copy of this risk assessment form (to be checked before departure and altered for the specific visit if deemed necessary on arrival), a first aid kit, a torch (including spare batteries and bottles of water).
3. Whilst on a vessel, employees should be instructed to maintain a visual on each other where possible.
4. Employees will be given cards to carry indicating that they could have been exposed to Weil's disease. Ensure all cuts are covered with a plaster and hands are washed after visit.
5. Ensure that everyone is aware that key members of the team are carrying mobile phones with all relevant numbers and that these are fully charged and have been checked for good reception.

Post-risk factor (medium):

Likelihood 1

Severity Rating 5

Risk 5

Requirements:

1. Purchase lifejackets, shoes, first aid kit and torch (including spare batteries).
2. Obtain Weil's Disease cards and distribute to all employees.
3. Produce a safety guide and checklist for use in organising and undertaking visits.
4. Produce a supervision and training report after first visit.

Review:

Review after first vessel visit undertaken based on this risk assessment form and every six months thereafter. Also review this assessment on site before boarding the vessel and if any new hazards are apparent, they should be noted, the risk factors re-assessed and the employer informed if the risk is high.

Signed:

Date:

Legend used to calculate the Risk Factor:

Likelihood	Severity				
	1	2	3	4	5
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25

Key:

Severity

1	First Aid injury
2	Minor injury
3	3 day injury
4	Major injury
5	Fatality/disability

Likelihood

1	Very unlikely
2	Unlikely
3	Likely
4	Very Likely
5	Almost Certain

Appendix E About National Historic Ships

The Advisory Committee on National Historic Ships is an independent body sponsored by the Department of Culture, Media and Sport (DCMS) and established in 2006. Its remit is to advise government on all policy and technical matters relating to historic vessels in the United Kingdom, to advise grant making bodies such as the Heritage Lottery Fund and the Grant Fund for the Preservation of Industrial and Scientific Material (PRISM Fund) on applications from historic vessels and to support and advise historic vessel owners on developing sustainable futures.

Maintaining the National Register of Historic Vessels, set up by the preceding National Historic Ships Committee (1996 – 2006), is key to this role. The Register carries information on some 1,200 vessels which are:

- over 50 years old and built in the UK
- over 40 feet (12.19 metres) long, not including the bowsprit
- based and operating in British waters or preserved ashore in the UK
- substantially intact⁶

Of these, some 220 vessels have been identified as forming the National Historic Fleet, comprising 60 vessels of outstanding national importance (the Core Collection) and some 160 of special regional or subject significance (Designated Vessels). The Register carries crucial information on all Registered vessels, is a means through which comparative technical, social, and economic histories of the vessels are developed and is a material consideration in grant assessments. The Register is continually reviewed and improved, and a public version (which excludes private or sensitive information such as details of ownership) can be viewed on the National Historic Ships' website, www.nationalhistoricships.org.uk.

The Advisory Committee on National Historic Ships has set out an initial two-year programme of development with a focus on helping the sector to sustain itself in the long

⁶ The Register does not include wrecks, which fall under the remit of the Advisory Committee on Historic Wrecks.

term. The programme includes this document, its sister publication on deconstruction and a third volume on conserving historic vessels (a handbook to help owners look after their vessels to be published in March 2008); the creation of a gazetteer of sources of expertise on historic vessels; a skills audit to develop a greater understanding of what is needed to support historic vessels. National Historic Ships is also committed to promoting the development of National Ship Preservation Centres which can provide the skills and infrastructure to support the sector.

The Advisory Committee Members and the officers of National Historic Ships are:

Chairman: Dr Robert Prescott

Members at 31st October 2007:

Roger Hanbury	David Jenkins	John Kearon
Campbell McMurray	Sean Neeson	David Newberry
Tim Parr	John Robinson	Jane Ryder
Matthew Tanner	Simon Waite	

Officers

Director & Secretary to the Advisory Committee	Martyn Heighton
Co-ordinator	Paula Palmer
Case Officer	Simon Stephens
Advisor	Dr Eric Kentley

At its earliest meetings, the Committee identified as a priority an improvement in detailed knowledge of our historic vessels through the National Register of Historic Vessels and the National Archive of Historic Vessels. It sees this as fundamental to its own work. Consequently the Committee has debated, commented upon and agreed the final version of *Recording Historic Vessels* and *Deconstructing Historic Vessels* which comprise the first two volumes of *Understanding Historic Vessels*.