



SHEP Consultation: The Marine Historic Environment

The Royal Society of Edinburgh (RSE), Scotland's National Academy, welcomes Historic Scotland's consultation on the SHEP for the marine historic environment and the opportunity this provides to comment on the issues raised by it. The following response has been prepared by RSE Fellows who have considerable expertise in various aspects of the marine environment as well as those from the archaeological community. These comments may echo others that have been received as a number of RSE Fellows are also significant voices in other organisations that have interests across this domain. If Historic Scotland wished to discuss any aspects of the submission, the RSE would be happy to arrange for a number of the Fellows involved in preparing the submission to be available for a meeting.

Before responding to the questions posed it is important to comment on the wider context in which the SHEP on the marine historic environment has been prepared. Whilst welcoming the SHEP, the Society is of the opinion that the consultation document has been prepared against a set of terms of reference which are too narrow. Full account is not taken of:

- a) overlapping and extant Governmental policy initiatives relating to the wider marine environment;
- b) the development and recent application of multibeam surveying techniques in Scottish lochs, estuaries and offshore areas;
- c) the need for mechanisms to facilitate both the **protection** of important archaeological, biological and geological sites **and** the desirable **exploitation** of the sea and seabed; including fisheries, energy, mineral resource, engineering, military and leisure usage, together with mechanisms for conflict resolution between different users: a holistic approach is required.

Scotland has a wealth of both cultural and natural heritage in its extensive marine environment. The seas around Scotland have also been the site of fundamental studies in marine biology that have become classics in the history of marine science. The approach to date has tended to put the various aspects of the marine environment in their own 'silos', whereas what is really needed is a holistic view of the protection of the totality of Scotland's marine heritage. From a study of the consultation document it is apparent that the marine historic environment belongs to a group of entities that is not absolute or they show "non-absolute" characteristics. These entities are often dominated by human perception, e.g. one person may think undertaking an activity will not cause any harm while another may think it is dangerous. The non-absolute characteristics of the marine

environment and an alternative approach for managing the marine historic environment is discussed in the appendix attached and we suggest that this should be taken into account.

The UK Government has recently published the draft Marine Bill for England and Wales. The draft Bill covers the area of UK Designated Waters out to 200 nautical miles. The Scottish Government is also working on proposals for a Scottish Marine Bill and it is possible that Scottish Ministers might have jurisdiction out to 200 nautical miles. In this context it is important that there are open lines of communication between the two legislatures to ensure that potential problems of regulation and management are avoided.

Comments pertaining to sections of the consultation paper

Introduction

Paragraph 2.7 implies that underwater investigation is in its infancy. Underwater investigative science is well advanced and appropriate techniques (swath bathymetry) already exist. To obtain more comprehensive areal coverage, what is required is increased funding and a system for prioritising the order in which projects are undertaken.

Proposals for Scottish Ministers' policy on the marine historic environment

In relation to paragraph 4.3d, the difficulty of achieving consensus on matters relating to the marine environment should be recognised. This can be exemplified by the fact that the Nature Conservancy Council and its four successor organisations have only managed to establish three Marine Nature Reserves in a twenty-seven year period. A mechanism needs to be found whereby the liaison process is as efficient as possible and does not prevent matters moving forward and decisions being made.

With reference to paragraph 4.3h, *preservation by investigation* needs to be matched by *analysis and publication*.

Proposals for new legislation to protect the marine historic environment in Scotland

With reference to paragraph 5.2c, it is important that operations that require a licence should not prescriptively exclude future developments in marine operation practices.

In paragraph 5.3 and the Options section of Annex C, it is stated that if new legislation is enacted it would not be the intention of Scottish Ministers significantly to increase the number of designated marine historic assets. The Society believes that such a statement could be prejudicial to the process of designation. In the same annex the section on costs and benefits of taking forward proposals for new legislation states that no additional resources are needed within Historic Scotland. We suggest that greater clarification of the cost and resource implications is required, particularly with regard to the marine historic environment in the context of a Scottish Marine Bill.

Also with reference to paragraph 5.3 and the scope of the proposed legislation to extend out to the limit of territorial waters (12 nautical miles area), perhaps it would be appropriate to amend the wording to take account of the possibility that there could be an increase in Scottish Ministers' powers of jurisdiction in light of negotiations on a Scottish Marine Bill.

Implementation

The Society strongly endorses the partnership approach referred to in paragraph 6.1. Such an approach is necessary given the diverse interests that exist in the marine environment. The Society hopes that *scientific institutions* is broad enough to include University and similar groupings of nautical archaeologists and historians.

QUESTIONS

Proposals for Scottish Ministers' policy on the marine historic environment

1. Do you agree with Scottish Ministers' proposed policies for the marine historic environment?

Taking account of the issues set out earlier, the RSE broadly welcomes the proposed policies.

2. Is anything missing?

Again, with reference to the issues considered earlier, the proposed policies appear to consider the major strategic issues. However, there is no mention of climate change in the consultation document and it should be recognised that Scotland's coastal environment is likely to change substantially during the next century with rising sea levels and with increased storminess. These factors could have considerable effects on the whole of Scotland's marine heritage.

3. Is 'national importance' as defined in Annex A the appropriate criterion for designating marine historic assets?

"National importance" is always going to be a difficult concept to define and the proposed definition would provide consistency with terrestrial practice. The concept may, however, be too narrowly defined. Whilst marine historic environment assets are important and some will have the highest priority for preservation and conservation, others may have to be less-well protected if considered against other demands on the seabed and measured against other aspects of the "national interest". This could be mitigated through appropriate documentation of the asset in question. In other words, it may be appropriate to develop a risk assessment framework for decision-making with respect to historical marine assets. At this point, we would also draw your attention to the Appendix of this submission.

Care needs to be taken that the concept of “national importance” in the context of a Scottish Marine Bill does not imply a narrow, parochial approach. Many historic discoveries in Scottish waters have a European if not global significance which needs to be considered when assessing their “importance”. Perhaps the criteria and guidance could be expanded to encapsulate this to mitigate against potential difficulties.

4. Are the guidance and criteria for determining national importance set out in Annex A those which should be applied? If not, what would you suggest?

Following on from the answer to question three, we welcome the proposed criteria for designating marine assets although the application of appropriate criteria should be open to modification in the light of experience.

Proposals for new legislation to protect the marine historic environment in Scotland

5. Do you agree with proposals for new legislation in this area?

With reference to the points we make above on the proposals for legislation, we agree that new legislation is appropriate but only if it is integrated into a single management, planning and consenting system with other marine activities.

Overall the proposed provisions appear sound and likely to be workable and bring Scotland into line with European legislation and comparable issues in England and Wales.

6. Do you have any views as to how duties in relation to the marine historic environment might be split between Historic Scotland and any Marine Management Organisation?

It is difficult to answer this question satisfactorily until we have a clearer understanding of the likely structure of any proposed Marine Management Organisation (MMO). Following on from the answer to question five, it is important that, as far as possible, consent should be delivered through a single MMO. In the interests of promoting best practice we believe that there should be a close working relationship between any MMO and Historic Scotland, particularly given Historic Scotland’s expertise and input on the historic cultural environment, especially its recent initiatives in the maritime field.

7. Do you consider that anything is missing? In your response, please note that matters relating to salvage are the concern of international maritime law and regulation of shipping. Such matters are reserved to the Westminster Parliament under the terms of the Scotland Act 1998.

The proposed legislation must take account of the large number of presently known, and as yet undiscovered, marine heritage assets, not only those that are designated. Legislation should clearly ‘but neatly’ fit with salvage arrangements as covered in UK law by the Merchant Shipping Acts.

Implementation

8. What do you think might be the role of the local authorities and their historic environment advisors in relation to the marine historic environment and what are the key issues that need to be overcome?

The Society acknowledges the important work of local authorities in managing the historic environment, although it also recognises that they can vary considerably in terms of their expertise in dealing with such matters. Present local authority historic environment specialists are relatively few in number and already heavily burdened with duties in terms of the planning system. Therefore, there would be major resource, in terms of expertise and costs, implications for local authorities if they are to have a significant role in relation to the marine historic environment. With regard to these issues, local authorities should be consulted on appropriate projects, but they should have no formal role in implementation; marine processes and developments are not constrained by administrative boundaries.

Local authorities could also play an important role by acting as sources of advice for members of the public who discover or are interested in marine historic assets, similar to the way in which they deal with terrestrial archaeological matters.

9. What new mechanisms and procedures might be required to provide for the management of change in relation to planning matters in connection with Scotland's marine historic environment?

The provision of adequate management of change requires a fundamentally better understanding of what assets exist in that environment. In order to achieve this, better targeted and strategic survey and recording of the entire environment is required to allow adequate management, and to allow decision makers to be best informed.

It will also be important that there be effective liaison between different local authorities and the appropriate historic environment advisors over planning matters which may affect the established historical character of the near-marine and associated environment (e.g., harbour facilities, historic dock yards), as these become available for schemes of urban improvement which may reduce their historical importance through changes in use and/or through their demolition. It will likewise be important to establish appropriate systems of monitoring in respect of the management of change that allow for an understanding of the likely consequences of coastal erosion of near-marine and coastal sites of importance in relation to the marine historic environment (e.g., old salt pans, coastal mine workings) given, in the longer term, the presumed effects of climate change and associated sea-level rise.

10. Given that science and recording has a major role to play in improving knowledge about sites and monuments on the seabed, how can Scottish Ministers and agencies charged with relevant responsibilities best assist in progressing knowledge about Scotland's marine historic environment?

As set out at the beginning of our response, it is important to recognise the development and recent application of multibeam surveying techniques in Scottish lochs, estuaries and offshore areas. Although we do recognise that it will be necessary to develop techniques for the examination of the marine historic environment and to encourage strategic and targeted survey. RCAHMS, as the body tasked by Ministers to survey, record and disseminate knowledge of the terrestrial environment, should be provided with the resources necessary to undertake a similar role in the marine environment, in close collaboration with others.

If a MMO does come to fruition, it could play a crucial role in harnessing the skills and interests within universities by providing seed funding to develop academic interests in the marine historic environment thereby building a core expertise and leveraging support for this from other parts of the academic/educational support system. In addition, because investigations of the marine historical environment requires logistical assets, some of which are extremely expensive, like those used in marine science generally, there may be some no-cost gains to be had from using the same logistics (e.g. ships, diving facilities).

Additional Information and References

Copies of this response and others that the RSE has produced can be requested from the RSE's Consultations Officer, Mr. William Hardie (email: evidenceadvice@royalsoced.org.uk). Responses are also published on the RSE website (www.royalsoced.org.uk).

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RSE Appendix: Marine Historic Environment

1 Introduction

Given the range and extent of activities that take place in the marine environment that environment will be subject to disturbance and this, in turn, has the potential for significant impact on what should be preserved for historical reasons. The great challenge is to achieve a "correct" balance between conflicting requirements. One is to satisfy the need to harvest or utilise the marine environment to serve the demands for energy, food, transportation and leisure purposes. The other is to conserve and protect the marine historic environment.

Clearly, the proposed policies and legislation are aimed at arriving at this balance but these mechanisms may not achieve the goal. The main reason is the need to understand the nature of the marine historic environment before adopting appropriate solutions to address this challenge. This note will discuss some of the key issues under a number of main headings.

2 The nature of marine historic environment

From a study of the consultation document it is clear that the marine historic environment belongs to a group of entities that is not absolute or they show "non-absolute" characteristics. Examples of other entities include quality, safety, reliability and education. These entities are dominated by human perception, e.g. one person may think undertaking an activity will not cause any harm while another may think it is dangerous. By establishing regulations and rules for a non absolute entity, there is a tendency to believe there is an absolute value to be complied.

In the present case, in spite of the criteria outlined, it is difficult to determine what is historically important and significant bearing in mind that future generations may have different priorities and agendas. To overcome this problem it is necessary to understand this characteristic and adopt an appropriate methodology to manage this non absolute entity.

3 Methodology for managing marine historic environment

To address any non absolute entity there is a need to establish a methodology and developments in safety research can be generalised for application to a non absolute entity. The method is called the "Generic Management System" (GMS) approach. By starting with a management system and arranging for the main elements to be placed on a circuit it is possible to iterate towards continuous improvement, essential in treating something that is not absolute. The main elements of a management system are *Define* (the project objective and performance criteria), *Organise* (the activities and resources), *Implement* (a specific scheme of interest), *Measure* (the results obtained against performance criteria) and *Review* (the experience gained, lessons learned from feedbacks and benchmarking). Further details of the GMS approach can be found in Reference [1].

The same elements of the management system can be used for any situation by selecting the specific scheme and in the present context the scheme would be the *marine historic environment scheme* and could include components concerning the effects of marine environmental impacts. As an example, in addressing safety, the components of the safety scheme would involve identifying hazards, assessing the risk levels of hazards, reducing the

risk levels for selected hazards as appropriate and preparing for emergency in the event of an accident occurring.

4 Practicability of the approach

It may be argued that the principle of the approach seems sound, but the question to be asked is "Can the approach be used to replace prescriptive regulatory approach in practice?" The answer is yes. The GMS approach is generic and when used to address safety it can be readily transformed to the Safety Case Approach. The latter approach was adopted by the UK offshore hydrocarbon industry to replace the prescriptive regulatory approach at the recommendation of the Cullen report which investigated the Piper Alpha disaster in the North Sea in 1988, see Reference [2]. Here the UK Health and Safety Executive specify the requirements or standards to be met and the operators can use any method to meet them but they have to justify their decisions. Many other activities also use this approach, e.g. airline, nuclear and heavy chemical industries.

Thus from the marine historic environment prospective, once a standard is agreed or a policy goal defined any proposed project or activity that would involve "disturbing" the marine environment would require by law to apply the GMS approach or other appropriate approaches to the proposed project or activity and findings have to be approved before a positive answer would be given.

5 The role of education

The need to take care of the marine historic environment is well presented in the consultation document. Additionally there is an important role for education to play.

Firstly, education is required to ensure that a positive attitude is developed in seeking the "correct" balance between conservation and use of the marine environment. Secondly, education will help to ensure that the change from responsive approach to a proactive approach can be a smooth one. Thirdly, the risk based methodology is not as well understood by a significant number of people and education has a contribution to make in ensuring users are confident at its usage.

6 References

[1] Kuo. C *Safety management and its maritime application* The Nautical Institute. August 2007. ISBN 1 870077 83 0

[2] *The public inquiry into the Piper Alpha disaster (Cullen report)*
HMSO Cm 1310. November 1990