

The Marine Environment Data Information Network (MEDIN)

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A diver recording the Wheel Wreck, Isles of Scilly. Credit: Kevin Camidge (licence CC-BY 4.0 International). From the Isles of Scilly Designated Wrecks Interpretation Project archive deposited at the Archaeology Data Service. <https://doi.org/10.5284/105161>

The Archaeologist 121 celebrated 50 years of the Protection of Wrecks Act in England and Wales and provisions under Part 5 of the Marine (Scotland) Act 2010. Although legislation may formally protect historic wrecks it cannot address the challenges the hostile environment of our seas presents. Currents and storms can significantly damage fragile structures. Wrecks may also be damaged through human actions. The national heritage agencies monitor and report on the condition of protected wreck sites on a regular basis. For instance, the condition of Historic Marine Protected Areas in Scotland is reported to the Scottish Parliament on a six-year cycle.

But what of the data collected during monitoring programmes and investigations across the wider marine environment? As with terrestrial fieldwork, data is expensive to gather and represents unique observations in time and place. The data informs and illustrates project reports with raster imagery of remote sensing surveys provided to the commissioning agency. All too often the long-term value of the underlying raw data beyond the project report is overlooked when depositing the project archive.



The Marine Environment Data Information Network (MEDIN) is a partnership of UK organisations committed to improving access to UK marine data across a broad range of marine industries

Securing the future of marine archaeological archives through MEDIN

As Trusted Digital Repositories, both the Archaeology Data Service and Historic Environment Scotland, together with the Royal Commission on the Ancient Monuments of Wales, are part of the Marine Environment Data Information Network (MEDIN)¹ Historic Environment Data Archive Centre (DAC). MEDIN is a partnership of UK organisations committed to improving access to UK marine data across a broad range of marine industries. The network of seven MEDIN Data Archive Centres (DACs) works together to secure the long-term preservation of key marine data

sets in line with best practice and relevant standards and promote access and reuse of that data. As well as the historic environment, the DACs are responsible for water column oceanography, flora, fauna and habitat, fisheries, geology and geophysics, meteorology, and bathymetry. Good data stewardship and shared data standards raises awareness of the marine environment, enabling more informed research and better consideration of the marine historic environment in offshore developments.

All DACs are committed to sharing metadata about their marine records and archives through the **MEDIN Discovery metadata portal**, allowing metadata to be cross-searched and signposting the data-rich resources and national inventories.

Single projects

Excavation archives form a significant part of our marine archives. These include that of the mid-15th-century Newport Boat lodged at the Archaeology Data Service or that of a small Cromwellian warship, identified as *The Swan*, wrecked off Duart Point, Isle of Mull in 1653, held by Historic Environment Scotland.

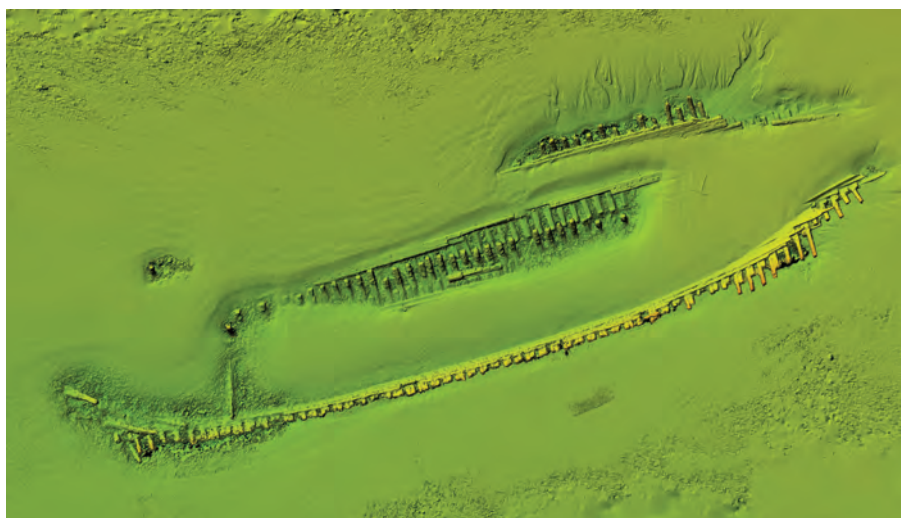
Monitoring programmes

The cyclical monitoring and reporting of the condition of protected wrecks can identify change through time. Monitoring programmes may range from regular diving inspections to remote sensing surveys. Ensuring the deposition and long-term preservation of remote-sensing survey data will enable comparative analysis of these changes over time, through computer modelling and change detection. To enable this, monitoring programmes should ensure that survey results are deposited in an appropriate archive in reusable formats.

Heritage and offshore industries

Working with MEDIN helps promote archaeological resources – from inventories of marine wrecks and losses to detailed surveys – to seabed developers, including the offshore renewable industries, helping to mitigate damage to historic assets. Large-scale multi-disciplinary surveys undertaken by offshore developers are also a valuable resource for archaeologists, providing opportunities to discover potential wreck sites and improve our understanding of submerged palaeolandscapes such as Doggerland. Access through the Offshore GeoIndex² to large-scale remote sensing seabed surveys, deposited in the Geological and Geophysics DAC maintained by the British Geological Survey, is a resource for wreck detection through machine learning. Being part of MEDIN ensures that we work to relevant industry standards and raise our profile with the wider marine industry, securing the long-term preservation of unique datasets.

A digital elevation model (DEM) of the wooden shipwreck at Cefn Sidan, Wales, derived from the point cloud that was created from the photogrammetry survey. Credit: Crown copyright RCAHMW



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¹ <https://medin.org.uk/>

² <https://www.bgs.ac.uk/map-viewers/geoindex-offshore/>