



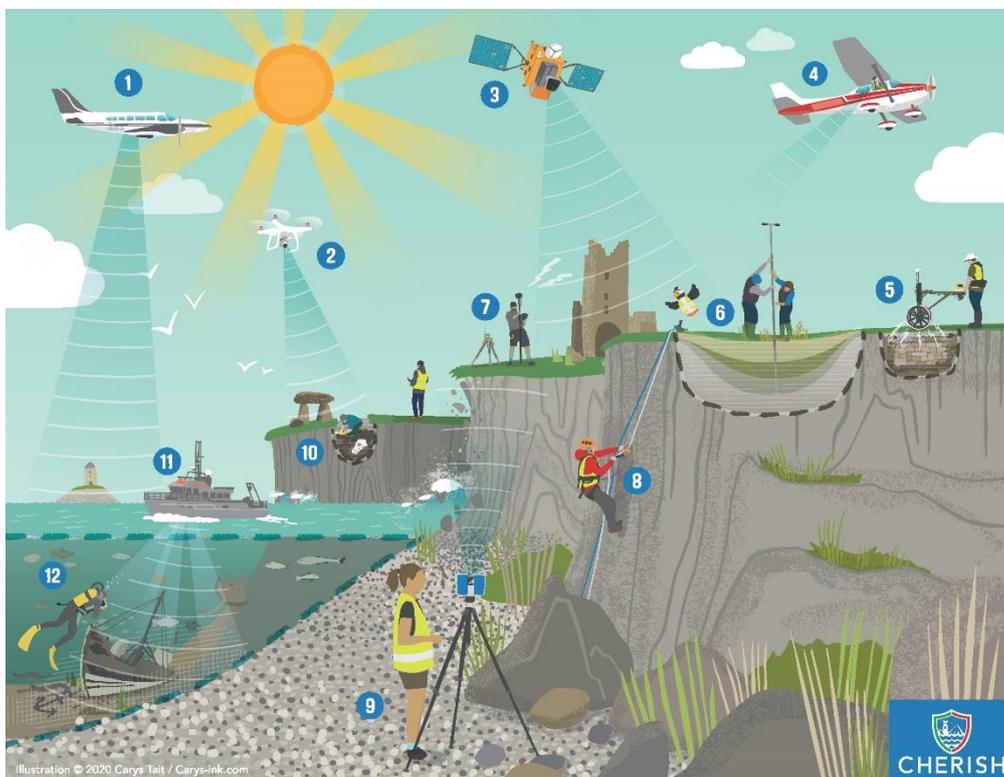
# Gorffennol Digidol Digital Past - 2021

**DRONES, BOATS, LASERS AND ROPES.**

**Studying the Past, Present and Near Future Impacts of Climate Change on Coastal Heritage Sites and Landscapes in Wales and Ireland**

Louise Barker, Senior Investigator and [CHERISH](#) project archaeologist, [RCAHMW](#)

Kieran Craven, Marine geoscientist and [CHERISH](#) project co-ordinator, [Geological Survey Ireland](#)



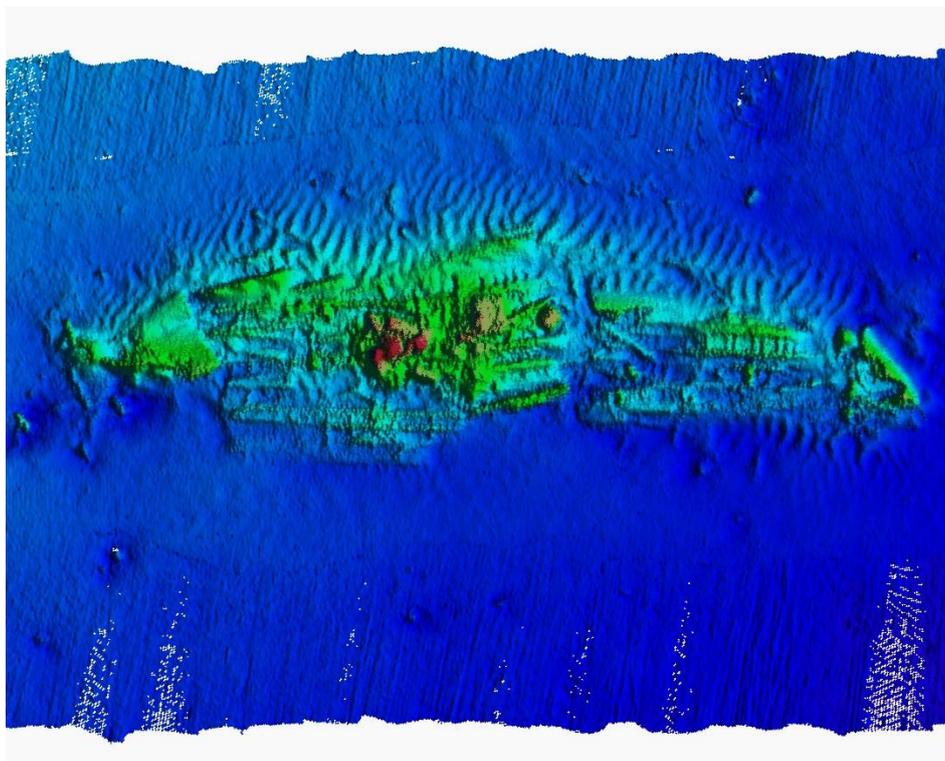
CHERISH toolkit (© 2020 Carys Tait / Carys-ink.com)

[Digital Past 2021](#): New technologies in heritage, interpretation and outreach | 8<sup>th</sup> – 12<sup>th</sup> February 2021, online via Zoom.

Mae'r ddogfen hon hefyd ar gael yn y Gymraeg | This document is also available in Welsh.

Louise Barker of the Royal Commission and Dr Kieran Craven of Geological Survey Ireland will introduce the EU-Funded Ireland-Wales CHERISH – Climate Change and Coastal Heritage Project. This brings together a multidisciplinary team of archaeologists, geologists and environmental scientists using an integrated methodology of survey and investigation, to record and monitor the impacts of climate change at a network of coastal and maritime sites in Wales and Ireland.

CHERISH deploys unmanned aerial vehicles (UAVs), 3D scanning equipment and acoustic bathymetry to establish baseline data, creating digital products such as elevation models, orthoimages and 3D models to observe, map and predict change in dynamic coastal environments. Repeat monitoring of sites also enables the analysis and comparison of time-series datasets to quantify change. Digital data is also being used to raise public awareness of the impacts of climate change on coastal heritage, for example through the production of virtual tours of archaeological sites and 3D printed models.



SS Idaho (© Crown copyright. CHERISH project)

CHERISH is also undertaking archaeological investigation at threatened sites to improve our understanding and knowledge of them. Here we will showcase work at the eroding prehistoric coastal hillfort of Dinas Dinlle in Gwynedd, where in addition to digital monitoring surveys, investigative work has included archaeological survey, geophysical survey and excavation, both dangling from ropes over the cliff face and with local volunteers near the coast edge. This uncovered a remarkably well-preserved stone

roundhouse buried beneath deep sand deposits, thought to represent periods of past storminess. Luminescence dating of the sand deposits and palaeoenvironmental work in the surrounding landscape is helping us reconstruct the past environments and climate at the hillfort, providing a long-term context to current and future risks, as well as an insight into the nature of extremes faced by past communities.



Dinas Dinlle. (© Crown copyright. RCAHMW)

## Biography

Louise Barker is a Senior Investigator with the Royal Commission on the Ancient and Historical Monuments of Wales and archaeologist on the CHERISH project.

She has worked as an archaeologist since graduating from Newcastle University in 1996, starting her career in contract archaeology before joining, what was then English Heritage in 1999 and subsequently the Royal Commission in 2004. Louise specialises in landscape survey and interpretation, and has worked on a wide range of sites and landscapes spanning prehistory to the present day.

Dr Kieran Craven is a marine geoscientist and the CHERISH project co-ordinator for the Geological Survey Ireland since July 2018. He graduated with a BSc in Geoscience and Environmental Biology from the University of St Andrews in 2006 and completed his PhD in Geology from Trinity College Dublin in 2013 investigating the impacts of sea-level rise on coastal environments. Kieran has worked as a lecturer in both Trinity College Dublin and Maynooth University, and with the INFOMAR programme of the Geological Survey, analysing acoustic technologies to interpret seabed and subsurface environments.

[Digital Past 2021](#): New technologies in heritage, interpretation and outreach | 8<sup>th</sup> – 12<sup>th</sup> February 2021, online via Zoom.

Mae'r ddogfen hon hefyd ar gael yn y Gymraeg | This document is also available in Welsh.