

The Arch-Manche Project

Archaeology, Art and Coastal Heritage - tools to support coastal management and climate change planning across the Channel Regional Sea.

This project aims to demonstrate how archaeology, art and maritime coastal heritage can be used to show long-term patterns of coastal change and the impact on human settlement. Study of this data allows understanding and modelling of past reactions to climate change to help with planning for the future. The results are important for 'Integrated Coastal Zone Management' (ICZM) and will inform sustainable policies for adapting to coastal climate change. This project is timely due to predicted increases in coastal erosion, flooding and coastal instability affecting Channel coasts. The project will both benefit from and contribute to developing practice in the study of submerged and intertidal archaeology, palaeoenvironment and intertidal coastal features.



The team working on the fish trap site in Serval (Image courtesy of V. Bernard, CNRS).



Watercolour of Alum Bay by William Gray, c.1860 (Image courtesy of Prof. R. McInnes).

Welcome to the first newsletter for the Arch-Manche project. This newsletter will take you through what the project aims to do, how the project will run, and the progress it has made over the last 12 months. Arch-Manche is a European funded project with four partners; the Hampshire and Wight Trust for Maritime Archaeology (HWTMA, UK), the Centre National de la Recherche Scientifique (CNRS, France), the University of Ghent (Belgium), and Deltares (the Netherlands).

The project is made up of three Activities, and also aims to disseminate the results from the work to a broad audience. The first Activity looks at archaeological, palaeoenvironmental and coastal heritage features and how these can contribute towards a better understanding of coastal climate change. Activity Two aims to extract similar data from historic artwork and the third Activity seeks to seamlessly integrate and present the results from Activity One and Two using a database and GIS software.

Over the past 12 months all four partners have been busy collecting archaeological data and searching for relevant paintings, maps, charts and photographs. Following analysis of the data the results will be used to develop best practice guides and presentational material that will be designed to inform professionals on how these resources can be used in future management of coastal areas.

Look out for the new Arch-Manche website being launched on the 19th November!

www.archmanche.hwtma.org.uk



The Arch-Manche team working on the fish trap site in Serval, Brittany (Image: HWTMA).

Activity One:

This Activity involves the study of archaeology, palaeoenvironmental data and coastal heritage features to demonstrate coastal change. Over the last 12 months several weeks of fieldwork have been carried out by the English, French and Belgian partners.

This Activity aims to produce a database with ranked examples that can be integrated using GIS with the results from Activity Two, to show their potential to add to understanding of coastal climate change across the 2-Seas region. The case studies will apply, test and review methods of investigating coastal climate change, and the results will be used within the project best practice guide to show how archaeological sites can be used to support the management of coastal risks and develop policies to manage coastal change.

HWTMA Activity One fieldwork in 2012 has included three weeks of diving in the Western Solent on wrecks and submerged landscapes at Alum Bay, Hurst Spit, the Needles and Bouldnor Cliff. These dives were able to provide information on the current state of the submerged sites. Peat samples were recovered for further analysis and erosion surveys were conducted. The HWTMA also carried out a week of fieldwork at sites around Langstone Harbour to collect data to help demonstrate how this landscape has changed over time.

The French team undertook several weeks of fieldwork. One site investigated by the CNRS in April and July was the Serval-Lannion fish trap in the intertidal zone of the River Leguer. The site was used for over 12 centuries and has the potential to inform us about coastal change in the region. The CNRS also carried out fieldwork at the Mesolithic site in Quiberon, this involved excavation and core sampling. The combined study of archaeology and environmental analyses will aid the reconstruction of this ancient coastline.

Fieldwork undertaken by the University of Ghent involved geophysical survey. At Raversijde they carried out marine seismic and electromagnetic survey across the intertidal area, which provided crucial information on the extension and depth of the buried peat layers and the excavation and exploitation that has taken place in the Roman and Medieval periods. At their second site, Scheldepolders, the team took geo-electric and electromagnetic measurements, which revealed information about the buried topography of the area and the succession of fluvial, marine and terrestrial deposits.



A diver entering the water during the Western Solent fieldwork in the UK (Image: HWTMA).



Activity Two:

This Activity involves studying a range of art works from across the 2 Seas region. Artistic representations of the coast are being reviewed to identify depictions of geology geomorphology and coastal heritage features which can help demonstrate change over time.

The project will also include maps, charts, historic photographs, and postcards. All partners are contributing to this Activity and gathering images which can be scored for their potential to provide data on coastal change, this information is then added to the project database. Deltares are also focusing on creating modern maps of the South-West Netherlands, reconstructing the landscape to show how it has changed over time.



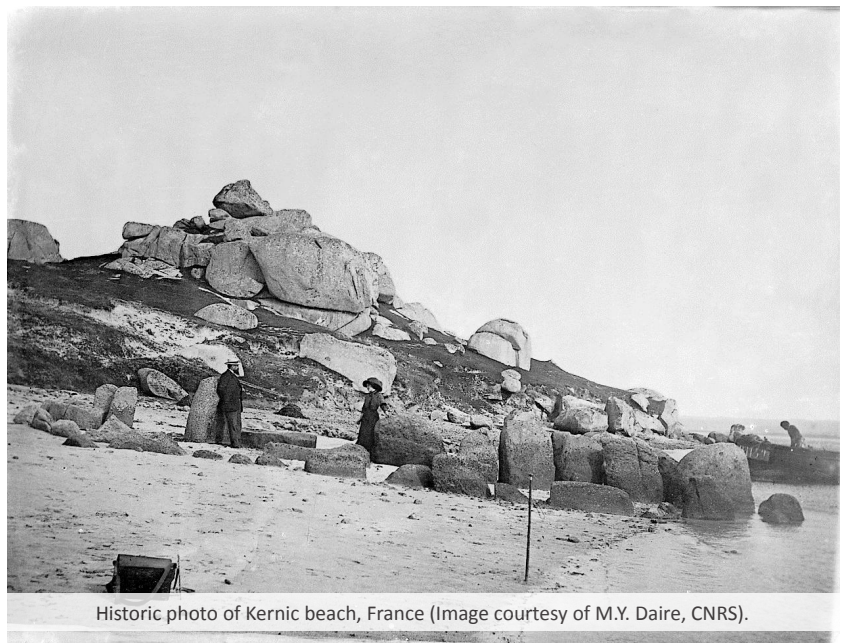
Aquatint of Reculver Church, Kent, by Daniell c. 1823 (Image courtesy of Prof. R. McInnes).

From this Activity, a list of artists and artwork from across the Channel region will be compiled; these will represent the images with the highest potential to demonstrate coastal change. There will also be a number of case studies conducted on the south coast of England, north west France, the Dutch coast, and the Belgian Scheldt/Zwin estuaries.

Results from the art case studies will be integrated within the project database and analysed using GIS to demonstrate how the information can be combined with archaeological and palaeoenvironmental data to show long-term trends in coastal change. This information will be incorporated into the project best practice guide to show how art evidence can be used to integrate into sustainable coastal planning and management.



Historical map providing a record of previous coastlines (Image courtesy of T. Missiaen, Ghent University).



Historic photo of Kernic beach, France (Image courtesy of M.Y. Daire, CNRS).



Activity 3:

Data Integration and Presentation - Over the last 12 months data has been gathered through Activities One and Two, this will be integrated into the project database which is linked to GIS to enable spatial analysis. This Activity will allow cross-partner working and analysis on a channel wide scale. The data includes a range of spatial and temporal examples; including spreadsheets, photographs, text based accounts, 3-D reconstructions, etc. Integration using GIS software aims to create a shared working environment for all of the partners to contribute to.

From these combined datasets illustrative, modelling and presentation materials will be created. These will be integrated into all levels of the reporting, communication and dissemination. As a part of this dissemination, there will be a review of the potential target audience for the dissemination materials to determine who would find them most useful. This will be done through feedback from target groups.

This project has been part funded by the European Union through the Interreg IV A 2 Seas programme.



Cone penetration testing in the Scheldt polders (Image courtesy of T. Missiaen, Ghent University).

What's Next?

All the partners will continue their work on their case study areas over the coming months and these results will be shared in the next newsletter, in the meantime the partners are in the process of developing a project website which can contain up to date information, videos, photos and will provide a background to the project.

The Arch-Manche project is going to be officially launched this November and will coincide with the launch of our new website - www.archmanche.hwtma.org.uk.

The document reflects the author's views. The INTERREG IVA 2 Seas Programme Authorities are not liable for any use that may be made of the information contained therein.



View of the Needles in the Western Solent during diving work in 2012 (Image: HWTMA).

