

# Solent & Isle of Wight Seascapes: why, how and what for explained

## Acknowledgements

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The Solent and Isle of Wight Pilot, one of four concurrent Seascapes Pilot Projects has been undertaken by the Hampshire & Wight Trust for Maritime Archaeology, Bournemouth University and Southampton University.

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This report represents the non-technical summary of the results of the Solent Seascapes Project, further details of project methodology and results are available in the 'Solent Seascapes Technical Report'. Images within this report have been produced using data which is licensed to English Heritage and must not be reproduced without prior permission.

## 1. What is Seascapes?

### From the Land to the Water - the Seascapes Concept

The development of the Seascapes concept has evolved from work on Historic Landscape Characterisation (HLC) in the terrestrial environment. HLC involves the broad scale analysis and interpretation of areas of landscape rather than focusing on individual sites. On land this means using a range of data sources which includes a legacy of detailed mapping which has evolved over hundreds of years which includes settlements, land use and transport routes recorded to a high degree of accuracy. Through combining this data with other sources such as Historic Environment Records, land use, place names, geology, aerial photographs and documentary sources a detailed analysis of the changing historic character of an area over time is built up. The analysis and presentation of 'time-depth' in the present landscape is based on the level and detail of available records. The result is a series of areas, or polygons, which represent similar traits or features and have been grouped as indicating of a certain type of 'character'.

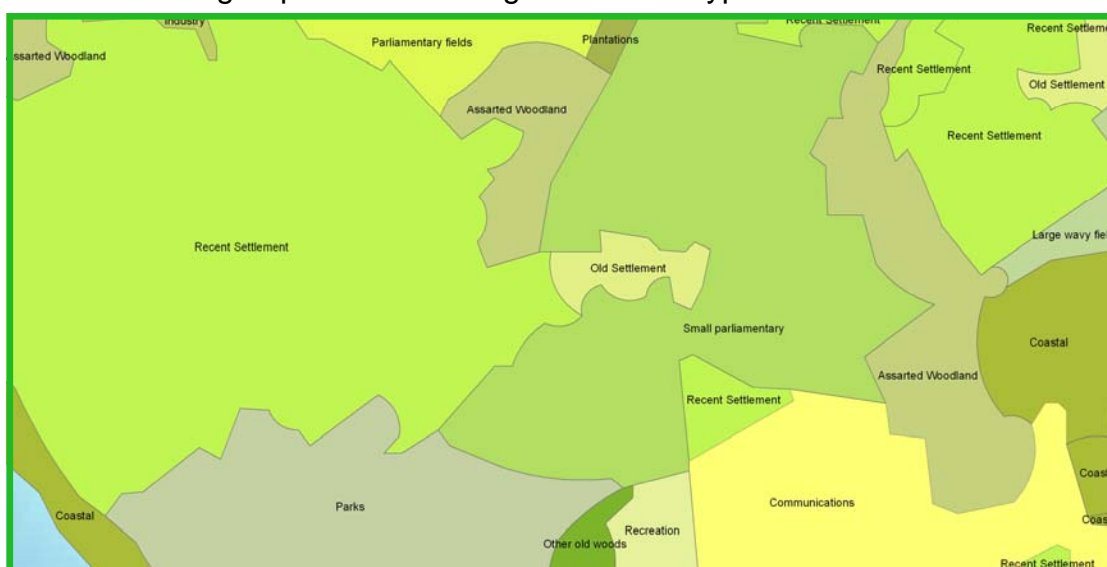


Figure 1.1 – Image showing example of an HLC area

HLC makes it possible to understand processes of human activity and impact by which the modern landscape has evolved, enabling sympathetic planning and management of future development. The process of implementing HLC in the terrestrial area has been on-going for the past fifteen years. The methodology used, types of data involved and final products were progressively developed over the initial decade, with a broad consensus reached on these aspects by 2003. Importantly the number of applications for the use of HLC in planning, management and research has also increased.

The use of terrestrial HLC to enable a broad, strategic level interpretation of the character of the landscape and resulting use in management are important factors driving the application of the HLC concept to the marine zone.

In comparison to knowledge of the historic resource and management frameworks for the terrestrial environment, the marine environment is following a long way behind. For many years 'maritime archaeology' has been seen as separate within research and management fields and has not been well integrated with the terrestrial historic environment. In 2002 English Heritage took over management responsibility for the marine historic environment and began to develop new approaches and initiatives. The Seascapes projects fall within this suite of projects. English Heritage are working in conjunction with the Aggregates Industry, whose offshore operations have the potential to impact the historic environment, to better understand the cultural resource, impacts upon it and ways to minimise impacts. To facilitate this process the Aggregates Levy Sustainability Fund (ALSF) has been established, this fund has enabled the Solent Seascapes project to be undertaken.

## Embracing Differences

The application of the process of Historic Landscape Characterisation to the marine zone has required some adaptation and development of new methodologies.



Figure 1.2 – Example of a terrestrial area showing detailed pattern of settlement and land use



Figure 1.3 – Example of a marine area showing the uniformity of the modern sea view

In the marine environment we do not have such detailed 'maps' to work with, instead we have a range of marine 'charts'. These are produced primarily to ensure safe navigation for ships and boats, they do not reflect the development of human impact on the marine landscape in the same way that maps do on land. However, in recent years there have been a number of other marine 'mapping' initiatives which consider different types of habitats or industrial uses of areas of the seabed.

Our level of knowledge of the marine cultural heritage that lies on the seabed is also not as comprehensive as that on land. Although there are marine Historic Environment Databases, the detail and accuracy of data within these is often inconsistent. Most such records relate to shipwrecks and maritime losses and are only just beginning to incorporate aspects of the cultural heritage which recognises that the area that is now seabed has not always been 'marine' and vast areas that are now under the sea were once dry land used by our prehistoric ancestors.

Although our knowledge of the marine environment is constantly improving at the same time human use of the seas for development, transport and recreation is increasing. These activities, along with natural forces, such as climate change and coastal erosion, there are increasing pressures on the marine environment from beneath the seabed right up to the water surface.

Seascapes provides a way to bring together in an area based, digital format a diverse range of datasets that are available in the marine zone to provide an interpretation of the modern marine historic landscape, but also recognise previous 'seascapes'. This interpretation develops 'Character Areas' that provide a more broad interpretation of historic development and change that can be used to help with management, planning and research.

EH commissioned the first trial of adapting HLC to the marine zone in Liverpool Bay. This project helped develop ways of creating 'Seascapes', it highlighted the potential of the method while also highlighting challenges in terms of the differences between the terrestrial and marine environments. However, encouraging initial results led to the commissioning of four further pilot areas around the English coast. These were needed to further refine and test the Seascapes methodology on areas demonstrating a greater range of physical and cultural circumstances from those of the initial pilot area.

### Why the Solent?

The Solent and Isle of Wight pilot area has been selected as it has been recognised as being of high potential and significance for its marine cultural heritage of all types. It is also an area that is one of the busiest sea areas around the coast due to shipping, recreation and leisure. Its natural resources, such as marine aggregates and shell fish also increase use of the area and add to pressures to manage such activities in a way that is sympathetic to the marine cultural heritage.

The Solent study area stretches from Durlston Head, Dorset, to Selsey Bill, West Sussex, incorporating the Isle of Wight, this includes around a 150 mile stretch of the coast. To make sure that the Solent Seascapes characterisations had over lap with the terrestrial HLC a 2km landward buffer was applied to promote a 'seamless' approach to the Historic Environment. The marine area extended from the four counties offshore up to the median line with France.

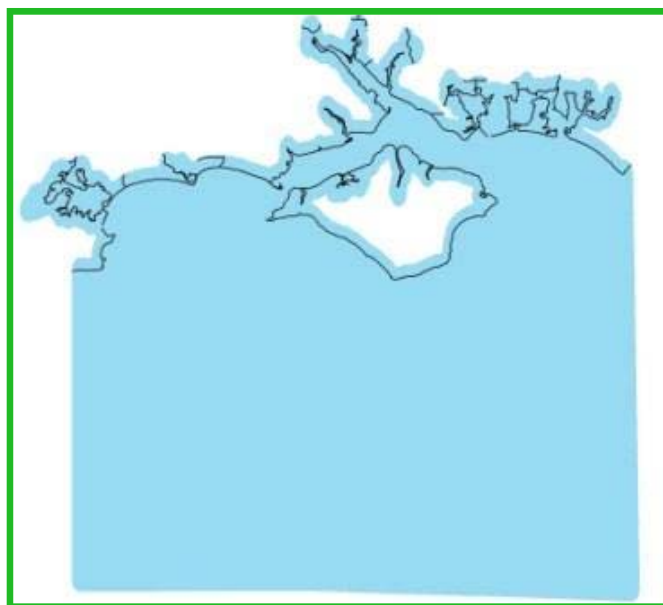


Figure 1.4 – Solent Seascapes Study area

## Why do we need Solent Seascapes?



The modern day Solent coastline and Sea Wight area is a diverse and dynamic landscape. Here a busy modern port can lie over and alongside prehistoric occupation evidence (figure 1.5). In comparison to some areas of the English coast we know quite a lot about the archaeological potential of the Solent area, however, due to modern pressures of activity, development and sea level changes we need more effective ways of managing change in the marine environment. Seascapes can provide a tool to help achieve this.

*Figure 1.5 – Trackways, believed to be Bronze Age, and the modern port of Southampton*

## Changing Landscapes

The geographic setting of the Solent as a sheltered waterway means it is an attractive area for human settlement. This has been the case since prehistoric times when sea level was lower. The Solent channel is the drowned valley of a great river which once flowed between the mainland and the Isle of Wight (Figure 1.6).



*Figure 1.6 – Reconstruction of the course of the Old Solent River (HWTMA)*

Although the Solent river valley has been submerged by rising sea levels at following end of the last Ice Age, its former extent can still be seen both in charted bathymetry and the submerged river terrace sediments recorded in the area. Remnants of the chalk basin can be seen most dramatically in features like Old Harry Rocks at Swanage, the eroded remains of the barrier that once stretched to the Needles on the Isle of Wight and formed the Solent river valley. Parts of the current landscape include layers of gravel and other material left by the Old Solent River and its tributaries.

The intertidal area of the modern Solent is characterised by a variety of features that include: shingle, sand spits, beaches and sub-tidal shoals which periodically dry at low water spring tides.



However, the most visible features are the numerous channels, inlets, and estuary features which characterise the Solent and Wight region (Figure 1.7).



*Figure 1.7 – Portsmouth Harbour and approaches as viewed from the Portsmouth Tower*

## The Marine Historic Environment

It is into this setting of changing landscapes that human populations have lived, migrated, settled and developed centres of occupation. From prehistoric times humans have exploited the natural resources and geographic setting of the Solent. This has left traces in the archaeological record which indicate the character of human activity and use of this area – see fact box.

### FACT BOX

Our knowledge of coastal and marine cultural heritage is constantly developing. Just a few examples of the important marine cultural heritage resource in the Solent include:

**Prehistoric Landscapes & Occupation:** The earliest evidence of human occupation of the area dates back to the Pleistocene. These finds date to times of lower sea-level, when vast areas which are now submerged were dry land. The size of the land mass available to early humans changed with climatic conditions. During the last Ice Age Britain was not totally covered by ice, leaving what is now the south coast as tundra. As the climate warmed humans re-colonised Britain, which was then part of the European landmass (figure 1.8).



*Figure 1.8 – Britain as part of Europe during times of lower sea level*

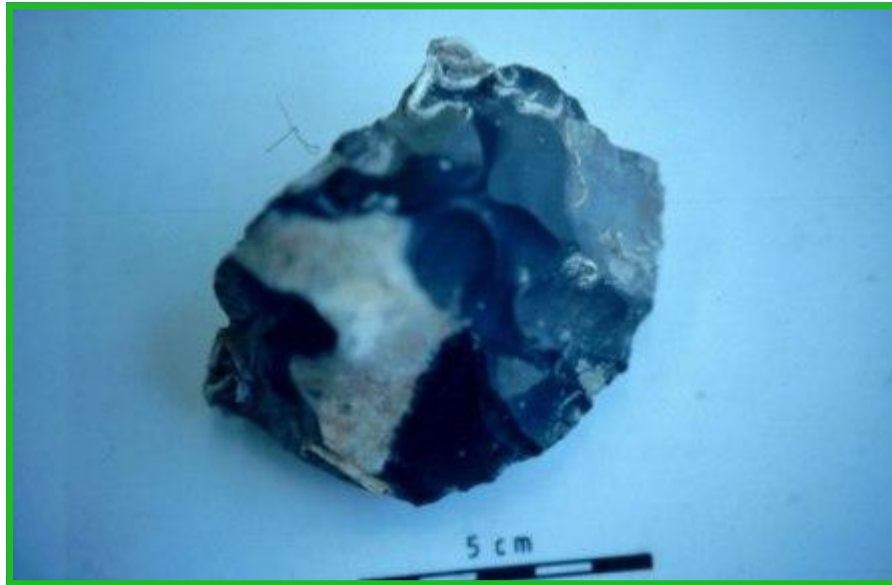


ENGLISH HERITAGE



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As sea levels continued to rise the location of the coast gradually regressed towards the modern day position. Rising seas covered areas used for occupation with layers of silt, entombing them within the seabed sediments. These remains of prehistoric peoples can be found across the Solent region being eroded by tidal movements or exposed dynamic coastal locations. Some of the earliest remains yet discovered are at Bouldnor Cliff of the North West coast of the Isle of Wight where hearths, flint tools and food remains such as charred hazelnuts have been located (Figure 1.9).



*Figure 1.9 – Bouldnor Cliff Mesolithic Finds*

Often closer to the modern shore line are peat deposits capping prehistoric landsurfaces dating to the Neolithic and Bronze Age periods (Figure 1.10). On these landsurfaces a wide range of occupation evidence is found including track ways and fish traps which show how marine resources were being exploited. These well preserved organic remains provide us with types of evidence of how our prehistoric ancestors lived that are rarely preserved on land, demonstrating the importance of marine and waterlogged deposits.

**Historic Occupation:** Settlers have come to the area, conveyed using watercraft through the Iron Age, Roman, and Medieval periods up to the present day. Proximity to mainland Europe, frequent natural sheltered harbours and anchorages, together with the navigationally advantageous long high-water stand and the natural protection provided by the Isle of Wight, mean the area was strategically well placed for settlement, trade and subsequent port development.



*Figure 1.10 – Auger full of peat from the Hamble River intertidal*