

Broad Character: Navigation

Character Type: Maritime Safety

Regional Perspective: Southern England

Compiled by Seazone Solutions Ltd / M A Ltd, January 2011, after comment from D Hooley, English Heritage

INTRODUCTION: DEFINING/DISTINGUISHING ATTRIBUTES

The 'Maritime Safety' Character Type includes features or structures sited at important position-finding or dangerous points on or near the coast for the guidance and warning of mariners, but they can also be located well inland. Usual components include marine navigation aids such as areas of buoys, beacons and lights, together with land-based navigation aids such as lighthouses, fog stations, daymarks (eg churches, beacons, chimneys, distinctive topography, distance marks and lights).

Southern England's coastline contains numerous daymarks which help to guide ships safely along the coast and into ports and harbours. Examples of these in the region include features deliberately designed as daymarks, such as lighthouses' white towers, as well as other distinctive place-marking features brought into use for that role such as prominent hillforts, chalk formations, monuments and modern television masts to name only a few.

The region has a number of lighthouses which have a permanent visual presence in today's landscape. Many are also used as amenity resources, being open to the public, for example St. Catherine's Lighthouse on the Isle of Wight.



St Catherine's Lighthouse, Isle of Wight (© T Millership)

There are many areas of hazardous water in the region which are marked by a range of safety features such as buoys, beacons and lights. One example is the Nab Tower situated on the Nab Shoal with its fog signals and a flashing light which is used to ensure safe passage of ships around the shallow water of the Solent margins. The busy stretch of Southampton Water is home to commercial shipping, yachts, small craft and water sports and its limits of safe and navigable waters are therefore marked on either side by navigation aids, primarily buoys.



Navigation aid at Egypt Point, Isle of Wight (© T Millership)

Much of the region, particularly the western area, is designated a safety area (an area with advised or designated restrictions on navigation, or exclusion from permitted navigation altogether, to promote maritime safety) due to factors such as the heavy shipping traffic and features such as submerged rocks such as the Bembridge Ledge.

There are Royal National Lifeboat Institution (RNLI) Stations throughout the region, for example at Poole, Yarmouth, Lymington, Hayling Island, Eastbourne and Hastings.



RNLI station, Hastings (© Maritime Archaeology Ltd)

HM Coastguard stations are also important features located throughout the region, examples being found at Shoreham-by-Sea, Chichester Harbour, Hastings and Hayling Island.

HISTORICAL PROCESSES; COMPONENTS, FEATURES AND VARIABILITY

The use of landmarks, or 'daymarks', to guide ships safely along the coast and into ports and harbours is a common aspect of maritime safety and probably the oldest and most basic method of navigation. Some are purpose-built, others reflect a cultural perception and role of topographic features and patterns such as distinctive hills or other prominent landscape features, for example the Devil's Dyke hillfort (also known as Poor Mans Wall) in West Sussex. Some such hills have had monuments erected on them which gives them even more prominence and distinction in the landscape. West of Freshwater Bay on the Isle of Wight lies Tennyson Down, a grassy ridge of chalk which rises to 480ft above the sea. It is named after the poet, Tennyson, who lived nearby for nearly 40 years and now has a monument dedicated to him erected on top of it. Similar is Culver Down with its giant stone needle raised in 1849 to the memory of Charles Pelham, Earl of Yarborough, first Commodore of the Royal Yacht Squadron.



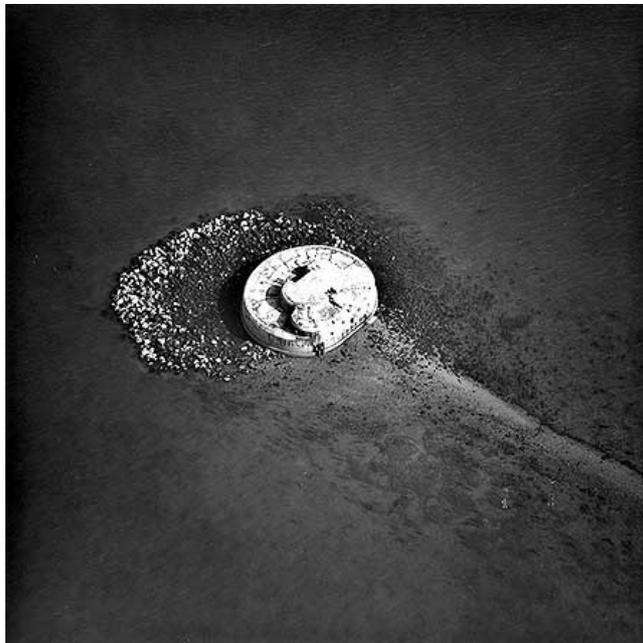
**Stone needle on Culver Down, Isle of Wight
(© Hampshire & Wight Trust for Maritime Archaeology)**

Distinctive chalk formations in the region would also have been used for this purpose. Examples include Old Harry Rocks which are two chalk sea stacks located at Handfast Point on the Isle of Purbeck in Dorset, and the Needles, a row of three distinctive stacks of chalk that rise out of the sea close to Alum Bay on the western edge of the Isle of Wight. The formation takes its name from a former fourth needle-shaped pillar called Lot's Wife that used to stand in its midst until it collapsed in a storm in 1764.



The Needles, Isle of Wight (© T Millership)

Artificial features which lend distinctiveness to a particular stretch of coastline were also used as daymarks, including church spires, windmills, beacons and chimneys. The Spithead forts, built in the Solent in the 1860s to protect Portsmouth from bombardment from the sea, also form daymarks. Modern structures which could well be used as daymarks today include the Spinnaker Tower in Portsmouth, twin towers of Brighton Power Station and television masts at Brighton and Newhaven.



St Helen's Fort, one of the Spithead Forts in the Solent (© English Heritage)

The region has a number of lighthouses including Anvil Point (Dorset), the Needles Lighthouse which lies at the top of the chalk stacks off the Isle of Wight, Hurst Point Lighthouse (Hampshire) and the old and new lighthouses at Beachy Head in Sussex. The modern lighthouse here lies at the foot of the headland, with the base of an earlier one, built in 1834 and known as the Belle Tout, still standing on the clifftop though recently

moved back from the cliff edge. These are used to guide vessels through particularly hazardous waters in the region.

There are many areas of hazardous water in the region, due to factors including shoals and flats (such as the Brambles Bank), submerged rocks and wrecks. Consequently a large number of safety features such as buoys, beacons and lights have been installed to guide sea traffic away from the hazards and into safe harbour. For example, the Nab Tower situated on the Nab Shoal with its fog signals, and a flashing light which is used to ensure safe passage of ships around the shallow water of the Solent margins.

The safe navigable channel into Southampton Water was already marked by a beacon by the time of the Beaufort survey in the mid 19th century (Merritt et al 2006). This busy stretch of water is home to commercial shipping, yachts, small craft and water sports and the main shipping channel is marked on either side by navigation aids, primarily buoys. Navigational buoys are also placed to guide vessels around the shoals and sandbanks along the main shipping routes and into harbours such as Chichester and Cowes.



Busy shipping lanes in Southampton Water
(© Hampshire & Wight Trust for Maritime Archaeology)

Much of the region, particularly the western area, is designated a safety area due to factors such as the heavy shipping traffic (eg at Southampton Water, Chichester Harbour), hazards during certain weather conditions (at Brighstone Bay off the Isle of Wight which is exposed to high winds) and features such as submerged rocks (eg the Bembridge Ledge).

Royal National Lifeboat Institution (RNLI) stations are present at frequent intervals along the mainland coastline and around the Isle of Wight. Examples include Poole and Swanage in Dorset; Yarmouth, Cowes and Bembridge on the Isle of Wight; Lymington, Portsmouth and Hayling Island in Hampshire; and Eastbourne, Hastings and Newhaven in Sussex. A map of all RNLI stations can be found at ([www.rnli.org.uk/rnli near you/find a station](http://www.rnli.org.uk/rnli%20near%20you/find%20a%20station)). The stations vary in size and capabilities according to the assessed character and demands of the coastline which each station serves. In general, characteristics such as capability to withstand heavy weather, fuel capacity, navigation, and communication devices carried, range etc. will all vary with size.

Maritime search and rescue in the region (and throughout the UK) is coordinated by HM Coastguard, which includes the mobilisation, organisation and tasking of adequate resources to respond to people either in distress at sea, or in inland waters, or to people at risk of injury or death on cliffs and shoreline. Coastguard stations are located throughout the region, examples being found at Shoreham-by-Sea, Chichester Harbour, Hastings and Hayling Island.

VALUES AND PERCEPTIONS

Navigation aids out at sea, such as buoys, lights, and beacons, are most obvious to those who use the sea, although at night they also have more visual impact on the landscape/seascape when viewed from land. Those that employ sound, such as fog horns and bells, have an immediate effect alerting about the dangers ahead but similarly have a landward dimension too, their often haunting sound sometimes carrying far inland.

Coastguard and lifeboat stations are an integral part of the Southern England coast and are greatly appreciated by the public and visitors to the region for their safety and life saving roles.

Some of the features that can be considered as daymarks are also tourist attractions. The Needles are a major tourist draw, with the scenic boat trips that operate from Alum Bay and offer close-up views of the stacks being very popular. The rocks and Needles lighthouse have become icons of the Isle of Wight and are featured on many of the souvenirs sold throughout the island. Some features are also linked to local legends, for example those surrounding the Agglestone Rock, a 17 foot high sandstone block perched on a conical hill outside Studland in Dorset. One legend tells of the rock being carried from Isle of Wight by the Devil who planned to drop its 400 tons on Salisbury Cathedral but the burden proved too great and the task was abandoned; another that the devil threw the rock from the Isle of Wight with the intention of hitting Corfe Castle (www.soton.ac.uk/~imw/Studland-Tertiary.htm).

RESEARCH, AMENITY AND EDUCATION

Further research would be beneficial through archaeological fieldwork and landscape approaches can complement documentary sources on the development, history and chronology of landmarks and navigational aids in the region.

Lighthouses are often used as public educational and amenity resources, for example St Catherine's lighthouse on the Isle of Wight is open to public at discretion of the keeper.

This Character Type lends itself well to local, regional and national case studies appropriate for the Secondary National Curriculum especially geography which looks at how places and landscapes are formed and how people and their environment interact.

CONDITION AND FORCES FOR CHANGE

Terrestrial navigation markers are increasingly becoming disused, since these traditional methods are being replaced with radio, satellite navigation, digital marine charts and seismic technologies. The same is occurring with the automation of lighthouses with questions being raised about the relevance of lighthouses due to increased modern use of Global Positioning Systems (GPS). The use of these systems has become standard for most maritime activities. However some argue that visual and lit markers should be retained as a back-up in case of failure of electronic systems. Proposals to decommission lighthouses are often met with fierce opposition from local community interests and

conservation groups, reflecting the iconic roles such features have for coastal land- and sea-scape perceptions.

Although navigation aids, particularly those at sea, are often replaced and renewed, their mooring sites may still hold evidence of successive use and re-use. This is exemplified in the use of fixings, piles and other materials to anchor these features to the seabed. In April 2010, a £500,000 underpinning project was announced, designed to stop the Needles lighthouse falling into the sea (due to the condition of the chalk strata on which the lighthouse was built) (www.iwcp.co.uk/news). The plan is for civil marine contractors to dig a trench around the base of the lighthouse, install a ring of stabilising posts, and infill it with concrete.

The growth in shipping traffic has been accompanied by an increase in the volume of recreational activity. This has led to concerns about navigational safety, and to the creation of bye-laws and regulations to reduce conflict. The two most notable examples are the small craft channel at the entrance to Portsmouth Harbour, and the 'moving prohibited zone' at the Brambles Turn at the mouth of Southampton Water. These arrangements have become widely accepted within the sailing community (Solent Forum 1997).

RARITY AND VULNERABILITY

Navigation aids can be understood as providing an intimate connectivity between land and sea. As such, navigation aids are fundamental to understanding the present and past human-use of the sea and offer a new perspective to our understanding of maritime safety. Plotting the location and understanding the development of coastguard stations along the coast would give valuable information about the development of hazards and preventative methods for coastal trades of all types (Val Baker et al 2007).

Navigational aids are vulnerable due to their location as well as technological advances. Technology is replacing traditional methods, and the monuments and features associated with these former methods are becoming obsolete. Many features have already disappeared and may be discernible only through the archaeological studies and interpretations.

PUBLISHED SOURCES

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