

1.1 BROAD CHARACTER: NAVIGATION

1.1.4 CHARACTER TYPE: MARITIME SAFETY

REGIONAL PERSPECTIVE: EAST ANGLIA

INTRODUCTION: DEFINING/DISTINGUISHING ATTRIBUTES



The Naze tower

This region is associated with its own maritime hazards both offshore and onshore. Low-lying featureless coasts leave mariners unaware of their position and appropriate reference points are crucial to make them easier to read from the sea (Williamson 2005, 133). The North Sea can be turbulent at times and this is compounded by the presence of numerous sandbanks lying parallel with the shore in this region. A large amount of heavy sea traffic traverses the area, going to and from some of the largest ports in the country. In addition the coastline is very popular with holiday makers who can get into trouble in the sea.

There are numerous daymarks all along the coastline and estuaries. These comprise any feature whose height and distinctiveness lends a unique character to that location as seen from the sea. They range from specially erected features such as the Naze tower, Nelson's Monument in Great Yarmouth and

the House in the Clouds in Thorpeness to incidental and more mundane structures such as high rise buildings, radio masts, chimneys, grain silos and water towers. Particularly notable examples in the region include Orford Castle, the line of Martello towers and the more recent military structures on Orfordness and at Bawdsey (See Military Facility). The string of large Perpendicular style churches associated with the wool industry also act as daymarks. Along the estuaries manor houses and other large buildings such as the Mistley Towers and Freston tower stand out in the muted landscape. Equally the ubiquitous windpumps, mills and more recently turbines (such as that at Lowestoft and the Sizewell B nuclear power station) can be viewed from great distances.



High rise buildings in Frinton

1.1.4 CHARACTER TYPE: MARITIME SAFETY

Lighthouses are also a common site along the coastline and take many different forms; all also act as daymarks. Working lighthouses are located in Gorleston, Lowestoft, Southwold and Orfordness. At Gorleston the Range Rear lighthouse is a red brick tower which sits amongst the houses just off the front. A second later brick and concrete built lighthouse is located on the south pier. The Lowestoft lighthouse is set well back from the coast and that at Southwold also sits amongst the town's houses, both painted a striking white. The Orfordness lighthouse is located at the end of the spit and is distinctively red and white.



Lowestoft Lighthouse



Buoy on Lowestoft heritage trail

Inactive lighthouses often still perform a daymark role and remain in Lowestoft harbour in the form of two brick towers on either pier. A small lighthouse at Pakefield is situated in the grounds of Pakefield Hall. In addition two sets of defunct lighthouses still stand at Harwich/Dovercourt. The high and low lighthouse in Harwich proper and two cast iron structures set about 200 m apart at either end of a stone causeway which projects into Dovercourt Bay.

Buoyage, beacons and lights are used extensively in the offshore area to mark the numerous sandbanks and marine features and aid navigation. Such features are particularly dense across the sandbanks to the north of the region around Great Yarmouth and in the south around Harwich haven, extending out to the Outer Gabbard. Safety lights/buoys etc are also found along all the river channels and extensively around the Harwich deep water channel.

Other safety features include traffic separation schemes such as those around the Sunk, pilot boarding areas and radio-call in points. The offshore area also has numerous caution areas due to elements such as submarine cables and high speed craft and a large precautionary area is in operation around the Sunk.

In terms of maritime rescue, large coastguard stations are located at Great Yarmouth and Clacton with smaller offices at Gorleston. Lowestoft, Aldeburgh, Shingle Street and Felixstowe. RNLI Lifeboat stations are located at Great Yarmouth and Gorleston, Lowestoft, Southwold, Aldeburgh, Walton and Frinton and Clacton.

HISTORICAL PROCESSES; COMPONENTS, FEATURES AND VARIABILITY

Over the centuries many different types of structures have functioned as daymarks. In most cases this function was incidental to their main purpose, however many of these structures have been of maritime character, depending on the significance of the East Anglian coast at that time.

Little is known of very early daymarks although the varying topography and other modified features were used to navigate (see Parker 2001). It is probable, particularly in the Deben and Alde estuaries that burial mounds such as those at Snape and Sutton Hoo were used for navigation. One of the earliest remaining historic daymarks on this coastline is Orford Castle. The castle was constructed in 1173 by Henry II specifically to overlook the coast. The position of the structure has changed dramatically as a result of the development of Orfordness and is now much further inland, however the castle can still be seen from sea. In 1809 The Marquis of Hertford, owner of the castle, wanted to demolish the building however he was refused permission as it was a "necessary landmark" (Williamson 2005, 133). A representation of Orford Castle on one of John Norden's maps of the Stanhope Estate 1600-1 showed a beacon on the top, presumably placed to aid navigation at night (ibid).

During the late medieval and early post medieval periods the region was very important to the wool and cloth industry as a result of its numerous ports and position in relation to London and the Continent. Although most ports silted up or fell out of favour many can still be recognised by their large Perpendicular style churches built by wealthy merchants. These include Blythburgh and Southwold. As a result of the flat countryside and wetlands in these areas these churches can still be seen from sea and have been used to navigate for hundreds of years. It is possible that the chapel of St Margaret at Minsmere was maintained to serve this function long after Leiston Abbey moved and may explain the height of some of the towers (Williamson 2005, 133). Alderton church was saved from a proposed reduction in height through decay in 1686 as the incumbent appealed to Trinity House on the grounds that it was a daymark (ibid).

In the 18th century Harwich was important for fishing, shipbuilding and as a naval base and was therefore heavily used. As a result of the treacherous approach the Naze Tower was built by Trinity House in 1720 on top of the Naze cliffs, specifically as a day mark. It still serves this function today for traffic approaching Harwich. Since its construction the tower has served as a Georgian tea room, an army lookout post, navy signalling point, RAF radar installation and telephone relay station. Today it is once again a tea room and tourist attraction (www.hometown.aol.co.uk).

A series of military fortifications were erected along the east and south coasts between 1804 and 1812 to defend against Napoleonic France (see Military Defence and Fortification). Although the towers were never tested defensively many remain along the coast as far north as Aldeburgh and are used as daymarks.



Nelson's monument in Great Yarmouth

The Martello towers have undergone a variety of later uses including as private residences, museums, restaurants etc.

Nelson's Monument in Great Yarmouth was built in 1819 and was also specifically constructed as a daymark. Following Nelson's death at the Battle of Trafalgar in 1805 it was decided to erect a monument in his home county of Norfolk. Although a monument in Norwich was proposed, ultimately it was deemed more appropriate to construct the memorial in a coastal location in the form of a column so that it could serve as a navigation mark (<http://www.nelsonsmonument.org.uk>).

During the 20th century the region's coastline once again became important militarily and a number of facilities were constructed to defend the country. These included the base at Orfordness which served a variety of functions, and the Radar Station at Bawdsey. Both facilities contained masts and other tall structures which still serve as daymarks.

More recently settlement and recreation have become key to the area. This has led to the use of more mundane buildings, masts etc as daymarks. One of the more interesting 20th century daymarks is the

House in the Clouds in Thorpeness. This was originally a water tower which was masked as a weatherboarded building to fit in with the mock Tudor village of Thorpeness and can be seen from many miles away.



House in the clouds and Sizewell as daymarks

Lighthouses have been important to the region for many centuries. The first lighthouses ever built by Trinity House were located at Lowestoft, Caister and Winterton to the north in response to requests to erect these features in 1609. The Caister lighthouse was shown on Fadens map of 1797 but no longer stands. In Lowestoft high and low lights were constructed on the ness with tallow candles used to produce the light. When lined up the lights guided vessels through the Stamford Channel. These original structures were rebuilt in 1628 and 1676, the high lighthouse becoming a substantial brick structure.

Further south the first lighthouse was built on Orfordness in 1634 by John Meldrum, who was granted a patent to build two temporary lights between Sizewell Bank and Aldeburgh Napes. These were replaced under Charles II by two timber towers located so as to indicate a safe passage through the narrow gap between the Sizewell Bank and Aldeburgh Napes. These wooden structures were the scene of a limited attempt at invasion of the British Mainland when, in 1707, during one of Britain's wars with France, the lighthouses were attacked by a French privateer who severely damaged a lantern and stole various goods, including the keeper's beds (<http://www.trinityhouse.co.uk/interactive/gallery/orfordness.html>).

Following this in 1720 the wooden lighthouses were replaced with brick towers at a cost of £1,180. In 1792, Lord Braybrooke, who was the owner at this time, had a new brick tower built much further back which became the great light and the previous great light then became the small light. It is this tower, built in 1792 which remains to this day.

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Until 1818 ships were guided into Harwich harbour by two lights – a fire in a room above the town gate and a wooden lighthouse above the beach. These were replaced by the brick High and Low lighthouses in 1818, built by eminent engineer John Rennie the Elder. However these became redundant in 1863 due to the changing course of



Harwich Low Lighthouse

the channel and the cast iron Dovercourt lighthouses were constructed, also becoming obsolete in 1917; all four lighthouses still stand.

Similarly a small lighthouse was built in the grounds of Pakefield Hall in 1832 to steer ships through the Barnard and Newcome sandbanks. The sandbanks had moved so much that another lighthouse was built in Kessingland in 1850 and Pakefield was obsolete by 1864 (www.suffolktourist.guide.com).

The building has since functioned as a bar and later a darkroom for the holiday camps which occupied the grounds, as well as being used before and during World War II for military purposes. Today it serves as a Coastal Surveillance Station.



Harwich High lighthouse



Dovercourt lighthouses

In 1836 an Act of Parliament gave Trinity House compulsory powers to levy out the private individuals who owned lighthouses, Trinity House paid the third Lord Braybrooke £13,414 for Orfordness Lighthouse. Following this lighthouses were erected at Gorleston (1852 and 1878) and on Gunfleet Sands (1852), a new high lighthouse at Lowestoft (1874) and at Southwold (1890).

At Gorleston an octagonal brick tower was built on the south pier and a later round brick tower amongst the houses. The former was replaced by a brick and concrete building in 1955 which also functions as a coastwatch station.

A lighthouse was constructed on Gunfleet Sands, in a horseshoe shaped bay within the western part

of the sandbank in 1852 and still stands today. The structure is iron lattice built on seven screw piles driven into the sands. A hexagonal living space is placed on top of this and finally the light at the summit. The light could be seen for 10 miles. The lighthouse was decommissioned in the 1920s and is currently used as a weather station (<http://www.lighthouseclips.org.uk/>).



Photo 1 Gunfleet lighthouse
© Michael Millichamp

At Lowestoft the high and low lights were replaced with the existing structure following periods of disuse of the low light. This makes Lowestoft the longest established light station in Britain. All the lighthouses which remained were converted to electricity in the 20th century and eventually became completely automated.

Historic maps show early positions of buoyed channels and lightships at sea. These often marked the same features which are still highlighted today, however the shifting nature of the seabed here means their position shifted over the years.

Lightvessels (ships which act as lighthouses in areas unsuitable for lighthouse construction) were also historically employed across the area. Most were commissioned during the 19th century, particularly around the approach to the Thames estuary with its treacherous sandbanks, and all were maintained by Trinity House. In the 1880s an experiment was conducted, placing a nine-mile undersea cable from the Sunk lightvessel to the post office at Walton-on-the-Naze. The experiment was plagued with delays and the cable repeatedly snapped (http://wopedia.mobi/en/Lightvessels_in_the_United_Kingdom). Lightvessels were placed at Sunk (still maintained), Cork, Black deep, Corton, Galloper, Gunfleet, Kentish Knock, Outer Gabbard and Shipwash. Most were decommissioned in the 1970s-1980s and replaced with bouys although some remain and have now been converted to unmanned operation and solar power. Lifeboat stations were operational in this region from a very early date. The earliest recorded was at Caister-on-Sea in Norfolk in 1791, although this was run by the Caister Beach Company whose priority was salvage. Both Lowestoft and Great Yarmouth had lifeboats by 1801-1802 although the first Great Yarmouth boat was not needed during its time in service. In 1823 the Norfolk Association for Saving the Lives of Shipwrecked Mariners was established and a more sophisticated lifeboat launched at Great Yarmouth in 1825.

Following this the Suffolk Association for Saving the Lives of Shipwrecked Seamen was established in 1826 and an 8-oar boat based at Sizewell. This moved to Aldeburgh in 1851 when the RNLI took over. Further south a lifeboat was launched at Harwich in 1821 but withdrawn in 1825. The Southwold lifeboat was established by 1841 and an official station opened in Caister in 1845.

The RNLI began to take control of the lifeboats in the 1850s and consequently permanent stations were also set up in Lowestoft in 1855, Harwich in 1875, Clacton in 1878 and Walton and Frinton in 1884. Both Caister and Harwich received a second station by 1890 (<http://www.rnli.org.uk/>).

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The Harwich lifeboat house was established as a direct result of a disaster at sea. In 1875 a German passenger ship named the *Deutschland* ran aground on Kentish Knock in a blizzard. The ship began to take on water and the order to abandon ship was given, help arrived two days later and 135 of the 213 passengers and crew were rescued. Growing public pressure led to the launch of the first lifeboat the following year.

Caister lifeboat, with its long history, is significantly the only English lifeboat independent of the RNLI. It was decided to close the remaining station in the 1960s during an RNLI reorganisation. At this time the station held the record for the most lives saved of all UK stations. Following a public outcry an independent station was retained.

VALUES AND PERCEPTIONS

Overall maritime safety features are considered both invaluable and locally characteristic of this area, although those located wholly offshore will only be known to small sectors of the community.

The coastal landscape is dotted with daymarks and lighthouses which are now seen as particularly iconic. For example, the Naze tower is an integral part of the scenery on the North Essex coastline, having looked over the sea here for nearly 300 years. Similarly the Orfordness lighthouse has been standing since 1792 and still functions as a guide to mariners.

Lifeboat houses are a common site along this heavily traversed coastline and the lifeboat service was partly developed in this area. The RNLI motto 'Never turn back' was devised after a disaster at Caister in 1901. The lifeboat was launched on the night of the 13th of November to save a vessel in distress on the Barber Sands but capsized and washed back onto the beach, killing nine of the twelve crew. During the inquest coxswain James Haylett when asked if the crew were returning having given up pointed out that the crew would never give up if a ship was in distress. This was translated by the press as "Caister men never turn back" later to be adopted as 'Never turn back' (http://en.wikipedia.org/wiki/Royal_National_Lifeboat_Institution).

RESEARCH, AMENITY AND EDUCATION

There is scope for research into the historical elements of maritime safety in the region, particularly the coastal buildings such as the original lifeboat houses and lost lighthouses and navigation marks.

However there is already a lot of local interest in the subject due to the historically close relationship of the local communities with the sea and many local history groups have researched this character type. As such much information is available for education purposes, including the local maritime museums which have displays relating to maritime safety and occasionally obsolete vessels. For example the Alfred Corry museum in Southwold houses the Southwold lifeboat of the same name which was operational between 1893 and 1918 and has been restored to its former glory.

Other amenities include the lighthouses, some of which are open to the public, either throughout much of the year or one day annually.

CONDITION AND FORCES FOR CHANGE

Changes in navigation methods, particularly the use of satellite navigation systems, have clearly changed the way in which mariners use daymarks and lighthouses. This has led to Trinity House suggesting the abandonment of some lighthouses, often resulting in objections that in the event of failure of new systems the older methods can always be relied upon. Objections also arise from the potential loss of an iconic local landmark.



Southwold lighthouse

Safety services and features such as safety areas offshore are also becoming more important and more common with the development of larger ports and harbours such as those in development or newly developed at Great Yarmouth, Harwich and Felixstowe.

Economic and political forces will also always bring about change. Recently there has been suggestion of closing the large coastguard station at Great Yarmouth and moving it to Cambridge, causing much local consternation.



Rescue helicopter at Dunwich

RARITY AND VULNERABILITY

As a result of changes to navigation discussed above some elements of the maritime safety system have now become almost obsolete due to more economical alternatives. Most notably this includes lightvessels, only one of which now exists in the region on the Sunk.

In terms of the built environment erosion is also playing its part with the Naze tower ultimately at risk if cliff erosion in the area continues. More urgently the Orfordness lighthouse is likely to be lost within 5 years. The Happisburgh lighthouse is not currently under threat from erosion.

Overall the area has a long history of maritime safety features which is at risk of being forgotten if not fully recorded.



Orfordness Lighthouse

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