## BUILDINGS AT RISK

# Harbour lights and beacons – swept away by man or weather

*Buildings at Risk looks at our built heritage – lost, saved and at risk – around the island. Following the article on breakwaters, this week* ***Dave Martin*** *– of the Isle of Man Natural History and Antiquarian Society, and a former Naval navigator – looks at the lights and beacons around our harbours as aids to navigation.*

The harbour light on the end of the Red pier, painted by John Holland c.1905 Manx Museum

The boundary between the sea and the land is where many come to grief, so 'keep plenty sea-room' (ie keep well away from the coast or rocks) is indoctrinated in mariners.

That is all well and good when making passage in open waters, but not so easy when making landfall.

Everyone will be aware of the lighthouses around our coast.

Prominent by day and by night, they are sufficiently prominent to be seen from relatively far off and allow mariners to keep a safe distance off the coast. They are also prominent landmarks that help navigators fix their position when passing the island.

Douglas Head lighthouse is unique in the island in that it also acts as a beacon to guide mariners towards Douglas, albeit not the actual harbour entrance.

Modern navigators are blessed with accurate, up-to-date charts, and a plethora of electronic navaids and if the passage is properly planned and the navaids are used and cross-checked correctly, mishaps because of pure navigational issues are relatively rare nowadays.

However, until well into the 20th century, the mariner's main tool in deciding where, in pilotage situations, they should take their vessel – or avoid – was the 'Mark One Eyeball' – ie what they could see.

In good daylight conditions, those who frequented a coast or port would get to know where it was safe to go, and where to avoid. Reduced visibility or unfamiliarity with a coast could have tragic results.

Man has long sought to make dangers – be they rocks, reefs, or islets – more prominent.

The first substantial light on Ramsey North Breakwater, atop the Abernethy birdcage breakwater structure. Those early light towers, assembled from a kit of iron panels, needed frequent attention to keep salt-water corrosion at bay (iMuseum)

In coastal waters this is especially important when they are isolated such as the Chicken Rock, or in what might at first sight be a shipping channel such as Kitterland or Thousla in Calf Sound.

Even more treacherous are those that are only just visible at certain states of the tide and awash at others, or are permanently 'just below' the water.

These dangers are not just rocks, they also include sandbanks such as the Bahamas Bank – once marked by a manned lightship, now delineated by automatic buoys.

Where mariners may need to deliberately proceed closer in, be that to anchor or to enter harbour, dangers such as either of the Carricks (Manx for rock) in Bay-ny-Carrickey or off Port Lewaigue were marked with 'perches' – basically an un-lit pole sticking up to be visible at all heights of tide.

Sometimes, for rocks or dangers that were always under-water, a buoy would be moored (sometimes lit).

Buoys are used where there is plenty of room to pass clear as at low tide, as the length (or 'scope') of the buoy's mooring chain means it can swing out of position, so its position is always a little uncertain.

This article focuses on the lights, beacons and marks specifically erected to help mariners find a harbour from seaward, and then find their way safely into that harbour, by making dangers more conspicuous and indicating safe routes or channels.

Rocks, and the limits of safe water in a channel, were first marked by perches, and then sometimes by small unlit masonry pillars.

As they were usually the furthest-seaward suitable location, the ends of a breakwater often bore a light to help mariners after dark or in reduced visibility. Nowadays we are accustomed to seeing advertisements for 'million candlepower' hand-held spotlights – but in early days the lights on breakwaters were often just – literally – a handful of candle power, which left the mariner trying to discern a pale yellow glim against a port's other lights.

Once storm-proof oil-lanterns (similar to those seen in ships' rigging) were available, they were used instead of candles, and the brighter lantern flame allowed the possibility of coloured lantern glazing.

Lights need to stand-out – not only to distinguish them from each other (which is why lighthouses have distinctive flashing patterns) but also to make them distinguishable from background lights ashore.

Many current-day navigators will have stories of 'someone' who had difficulties discerning a navigational beacon because of lights ashore such as a funfair on a promenade or a novice navigator who reported 'I've identified the green light sir – oh, no, it's just turned yellow, no, it's red now'.

This is not a new problem. In December 1822, HM Brig 'Racehorse' was bound for Douglas to pick up the crew of the cutter 'Vigilant' which had been badly damaged on Conister Rock some weeks earlier.

Having identified the distinctive new lights on the Calf of Man, Racehorse made passage along the coast heading for Douglas, and in due course the pilot saw a light ashore which he thought was that of Douglas Pier Head and so turned shoreward.

However, shortly afterwards, the ship struck a rock which they would later find was part of the Skerranes at Langness Point.

At his court martial, the pilot William Edwards said: 'I beg to observe that the light which deceived me was right over Langness Point and is called Scarlett House, the

Port St Mary's light under bombardment just before it was washed away Photo: Adrian Darbyshire

Derbyhaven – old 'pepperpot' light/beacon and new electronic lights on the southern end of the breakwater; also perch on southern (far) side of the channel in background

Green water over a green light - Laxey in a storm Photo: Jon Penman

gentleman who occupied it (a Captain Thompson) died on that day so the house was well lighted up which occasioned me to take it for Douglas Pier Light and on account of the haziness of the weather I took that light to be a greater distance – I further beg leave to state that, that light has before deceived many and have been the occasion of several vessels being lost.'

The loss of the Racehorse not only led to eventual improvements in marking Langness, but also highlights the importance of distinctive lights to mark harbour entrances.

The colour of, and lights on, buoys indicate which side of the channel they mark (known as 'lateral buoyage' system).

There is now a standard in most of the world that the colours should reflect what you see when you're entering port (red to port and green to starboard) although the Americas and a few Pacific nations have it reversed. This can be clearly seen either side of the Mersey channel when arriving or departing by ferry.

The same colour scheme is now adopted for fixed marks and lights, hence red and green for harbour beacons and lights to be left to port and starboard respectively when entering harbour. Harbour marks and lights show either where to go, or where not to go.

Laxey 'daleks' - a vanity decoration, not harbour lights

When entering, say, a bay where there is a safe channel but it is impractical to place perches or buoys either side of the channel, other shoreside marks and lights can be erected.

One method is 'sector lights' which show different colours in different directions, such as yellow if you're in the channel, red if you're too far to port and green if you're too far to starboard.

Sector lights work best if the channel is relatively wide even close in, and are frequently seen in, for example, some of the twisting Norwegian fjords.

If you need to guide a vessel along a more exact path, another technique used by mariners is a 'transit' – keeping two distinctive marks ashore in line, or making sure one mark is always 'open' (don't let them cross).

This has been used by fishermen as fishing marks – noting that there was good fishing when the rowan tree on the ridge was in line with a white rock on the shore (and similar allegedly used by pirates on treasure maps).

The two items to be kept in line are known as leading marks, or if lit, leading lights.

In harbour entrances, a transit might have first been established by painting a white mark on the rocks inland of a perch, so the navigator knew if he kept the perch in line with the white mark to the rear, he should be safe.

This was in some case improved by erecting specific beacons, and then later illuminating them, as at Port Erin.

The final class of harbour signals and lights are those which change to indicate where and when a vessel may proceed, somewhat in the manner of railway signals - some had semaphore arms, many now use traffic lights.

# Manx Harbour Lights

**Some of the lights at main ports:**

**● Douglas - in 1783, 84 yards of pier, with 'light house lit by seven half-pound candles', was washed away.**
**The remaining rubble reef was a hazard to shipping and it was reported that 'The only light to direct vessels into the harbour is a lantern upon a pole at the extremity of the remains of the former pier'.**
**On September 21, 1787 that lantern was swept away and a part of the herring fleet was lost.**
**The Red Pier was completed in 1801 and its now-demolished pier-head light was not only an aid to navigation but also a prominent and eventually much-photographed landmark.**

**The short-lived 1864 Abernethy outer breakwater (see Buildings at Risk, Isle of Man Examiner, November 3) did have a warning lantern, as did the 1867 Victoria Pier.**

**● Castletown – there was a shore-based lantern from 1650 at Derbyhaven, and a light from 1765 at Castletown when ships were expected.**
**Castletown 'new' pier built 1840 with a pier-head light.**
**Derbyhaven breakwater, built 1842, has a 'pepperpot' light marking the southern end of the breakwater adjacent to the channel to the anchorage, the other side of that channel is marked by an un-lit perch.**

Port Erin leading lights – front light on the beach, rear light on the Promenade (Google Streetview)

**The 'pepperpot' still acts as the daytime beacon, but a small pole now carries an electric light.**

**● Port St Mary – pier built in 1815 with pier-head light. 1884-built Alfred Pier light tower washed away in 2009, replaced with concrete tower.**

**● Port Erin – light on the short-lived outer breakwater was lost when they were both thrown-down by a storm in 1881.**
**The end of the breakwater rubble is now marked by a buoy.**
**Pair of leading lights established 1884.**

**● Peel – in 1811 a red light was shown from the east side of the entrance, replaced 1861.**
**Abernethy outer breakwater, with light, completed 1865.**

**● Ramsey – lanterns on early piers were augmented by a small lighthouse at the head of the beach, south pier lighthouse erected 1845, Abernethy northern breakwater, with light, completed 1868.**

**● Laxey – harbour acquired by Harbour Commissioners in 1890, pier lit 1891.**