

Fortification as an element in the design of Irish Coastguard Stations, 1867-1889

by DENIS MAYNE *

PART I: COASTGUARD BUILDINGS PRIOR TO 1870

When the Coast Guard was established in Ireland in 1820 the aim of the Board of Customs was that crews should reside together at the stations: the reasoning was that '8 or 10 men kept constantly together are more efficient on the coast than 12 men dispersed'.¹ This ambition was not achieved at all stations, for crews were frequently billeted in houses scattered throughout the locality, but some watch houses were built. They resemble Customs buildings of an earlier period, and are sometimes mistakenly dated to the eighteenth century. The classic watch house is a two-storey, rectangular block constructed of split-stone rubble, roughcast and whitewashed, with a half-hip slated roof. It stands, like the example shown in the photograph, on the edge of the shore a few metres above the high tide mark, with a stone slip leading from the boat door to a beach or cleared gut.



The 1820s watch house at Portmuck, Co. Antrim, where the boat door has been replaced by a canted bay.

[Photo: courtesy of Leonard Fee]

with, over the boat door, a canted oriel window. Behind the watch room was a secure store for the station's weaponry and ammunition. At some watch houses living accommodation for the chief officer was incorporated at the rear of the building. Buildings with living accommodation can be identified from the outside because they have a chimney at the crotch of the rear hips.

The standard external measurements of such buildings are 13.5 m. by 6 m. They are 4.5 m. high. The interior would originally have been divided into areas with dedicated functions. The boat was stored in the large ground-floor front room, which had a sloping floor laid across with timber slides.

Above was a small watch room

¹ Parliamentary Papers (H.C.) 1824, xi (446), Appendix 54.

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Transfer of the Coastguard from the Board of Customs to the Admiralty

In 1854, upon the outbreak of the Crimean War, over 3,000 Coastguards, drawn from quarters throughout Great Britain and Ireland, were drafted into the Royal Navy. They performed their duties steadfastly, but it was found that many were elderly and unfit for service; and at the end of the war it was complained that ships were going to sea with untrained crews. The consequence, in 1856, was the passage of the Coastguard Service Act [19 & 20 Vict., c. 83], which placed the Coastguard under the control of the Board of Admiralty and constituted it as a naval reserve. Notwithstanding that the Coastguard was henceforth seen as a reserve fighting force, the primary requirement was still that crews should be proficient in carrying out anti-smuggling duties. To perform these tasks they were given a set of rummaging tools that included a gravel spit, four gimlets, two probing tools called tucks, and a dark lantern. Each man was armed with a musket, bayonet, two sea service pistols and powder, and a straight Coastguard sword.

When the Admiralty took charge it was found that the condition of equipment and accommodation for the force had been neglected. A letter to *The Times* described the firearms, which were flint muskets, as ‘antique’, and quite inadequate against modern weapons. At several of the stations the accommodation was in a state of dilapidation and found to be unsuitable for members of Her Majesty’s armed forces.² The crew cottages at the Cultra Coastguard Station in County Down were cited as an example of poor housing. There it was reported that the roofs leaked, that there were holes in the floors, that part of a wall had fallen down, and that the chief boatman had to share his house with another boatman. This latter circumstance was ‘objectionable’ because the house was no larger than one that a chief boatman should have had to himself.³

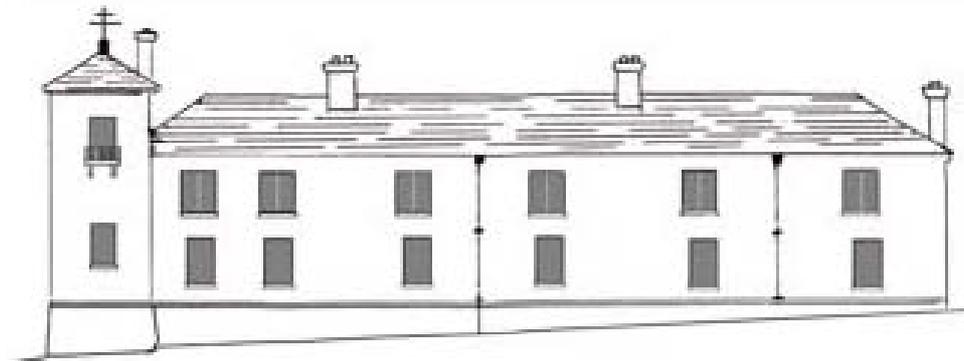
The Admiralty immediately set about providing new accommodation at the stations. The officers and men ceased to reside at dispersed locations, and were henceforth accommodated together in neat, well-designed terraces. Sites for these were found in prominent positions on high ground with a commanding view of the sea. The first terraces, designed by James Higgins Owen of the Board of Works, Ireland, were of a plain design, in which the larger house for the chief boatman in charge of the station was identified by its fenestration. Watchtowers, with characteristic pyramidal roofs, appear as an addition after 1863, the year in which another Owen was appointed assistant architect and chief draughtsman, and given the responsibility for designing the stations. Contrary to expectation, the new appointee, E. Trevor Owen, seems to have been unrelated to the James Owen, who, only a few years earlier, had designed the first terraces.⁴

² *The Times*, 15 June 1854.

³ P.R.O.N.I., FIN, 16/5/1.

⁴ Frederick O’Dwyer, ‘Building empires: architecture, politics and the Board of Works, 1760-1860’, in *Irish Architectural and Decorative Studies*, vol. v (Dublin: Irish Georgian Society, 2002), pp 109-76, at p. 150.

The station at Ball Hill in Co. Donegal, shown below, is a fair example of terraces at this time.⁵ The watch-room on the top floor of the tower had large windows on three sides fronted by narrow railed balconies set on corbel brackets. The room below contained the weapons and rummaging equipment. The chief boatman's house, usually next to the tower, was two-windows wide. The crew had smaller houses, one window-wide. The entrances to all the houses were at the rear. These watchtowers were to remain distinctive features of the Irish Coastguard stations up to the 1880s.⁶



Front elevation of Ball Hill Coastguard Station, Co. Donegal. Built 1866.
Based on drawings N.A.I. OPW 5HC/4/433]

Impact of the Fenians on the design of Coastguard stations

In the mid-1860s the activities of the Irish Republican Brotherhood, or Fenian organisation, came to have an unexpected impact on the design of Irish coastguard stations. At first the Fenians, founded simultaneously in Dublin and New York, and differing from previous national movements in drawing support from Irish emigrants in Britain and America as well as from the Irish at home, had not been taken seriously in England: in 1858 *The Times* referred to 'this confederation of fools'.⁷ The movement had been so thoroughly infiltrated by government informers that when, in 1865, James Stephens began to prepare for rebellion by recruiting members and collecting fire arms, he and other leaders were immediately arrested and the movement's newspaper, the *Irish People*, closed down: but in the month of his arrest Stephens was sprung from jail and escaped to America, a feat that greatly boosted the morale of the Fenians and caused much official alarm. In Ireland hundreds more Fenian suspects were arrested and *Habeas Corpus* was suspended. Among the papers of Sir Thomas Larcom, who was the Under-Secretary for Ireland, is a document that estimates

⁵ The architectural plans are based on drawings of the Office of Public Works (O.P.W.) held in the National Archives of Ireland.

⁶ See Esmond P. Symes, 'The Coastguard in Ireland', in *Ir. Sword*, xxiii (No. 92: Winter 2002), pp 201-10, where there are drawings of coastguard stations near Dublin.

⁷ *The Times*, 11 and 13 Dec. 1858.

that 15,000 sworn Fenian men were to be found in the army, and that these could count on the support among the population of another 24,000 half drilled Fenian men and of 9,000 Ribbon men.⁸ Later events would suggest that these figures were exaggerated, but the document retained by Larcom gives an idea of how seriously the authorities in Ireland viewed the emergency in 1866.

In 1865 the extent of American involvement in the Brotherhood was causing alarm. *The Times*, now showing more respect for the conspirators than it had in 1858, probably reflected mainstream opinion when it declared that it was 'beyond doubt' that 'the whole scheme in its origin and conception was American rather than Irish'.⁹ The significance of the Irish vote as a factor in American politics was shown by remarks of President Andrew Jackson to the effect that he was prepared to go to the brink of illegality to placate and aid the Fenians.¹⁰ Relations between the United States and Britain had deteriorated during the American Civil War,¹¹ and Lord Strathnairn,¹² Commander of the Forces in Ireland, recognised the potential threat from the numerous battle-tested Irish soldiers who had been released after the end of the conflict. He pointed out:¹³

In the event of hostilities with the Fenians, America enjoys the advantage that a million of her most military and stirring people are Irish Roman Catholics, bitterly opposed to British rule in Ireland, and ready to make any sacrifice ... to overthrow it.

At this time a group of about 150 Irish-Americans were moving between Ireland and England determined to launch a rising in disregard both of prevarication by Stephens and of discord within the Fenian movement in America. The date initially set for insurrection, in February 1867, was postponed until March. News of the postponement failed to reach the Co. Kerry Fenians who carried out several small skirmishes. The following month, on the bitterly cold and snowy night of 5-6 March, groups of unorganised and ill-armed men turned out in Dublin, Cork, Tipperary and Limerick. They were rapidly defeated by well-prepared forces of the Army and Constabulary, and arrests and trials followed. The government, keen to avoid the creation of martyrs, commuted all death sentences to terms of

⁸ Seán McConville, *Irish Political Prisoners 1848-1922* (London: Routledge, 2003) p. 145, note citing the Larcom Papers: MS 7687 (unfoliated, 26 June 1866).

⁹ *The Times*, 8 Nov. 1865.

¹⁰ McConville, *Irish Political Prisoners*, p. 143, n. 12; Henri Le Caron, *Twenty-Five Years in the Secret Service* (London, Heinemann, 1893), p. 59.

¹¹ During the war the British profession of neutrality had been doubted, particularly over what became known as the *Alabama* affair, when Britain provided the Confederacy with warships that had been built at John Laird's shipyard in Birkenhead on the Mersey. When armed American naval ships appeared on the Great Lakes in 1865 there was fear that the United States was considering attacking Canada. Speaking in the House of Commons Sir John Walsh, M.P., Lord Lieutenant for Radnorshire, declared: 'it does appear to me that no English statesman can, or ought possibly, to shut his eyes to the main fact that a feeling of hostility — I may almost say of bitter hostility — has pervaded, since the commencement of the unhappy civil war, the Government, the press, and the people of the Northern States, against this country' [H.C Deb. 10 Feb. 1865, vol. 177, cc 141-50].

¹² Prior to his appointment to Ireland Strathnairn had been Commander of the Central Indian Field Forces during the Indian Mutiny, during which he had acquired a reputation for his stern determination in conquering the revolting sepoy.

¹³ McConville, *Irish Political Prisoners*, p. 143, note 11, P.R.O. HO/45/9304/11188 (5), p. 4.

imprisonment. The rising in Ireland had been a failure, but subsequent events in Britain, at Manchester and in the prison explosion at Clerkenwell, generated very strong anti-Irish feeling among the public there, and the executions that followed in England did much to perpetuate the spirit of Fenianism in Ireland.

The Admiralty's response to the Fenian crisis

During the rising raids for arms and ammunition had been carried out on several small isolated police barracks, and also on three coastguard stations, viz., Kells in Co. Kerry, Knockadoon in Co. Cork, and Kilbaha in Co. Clare. One captured Fenian, John Goulding, who was subsequently sentenced to five years' penal servitude, said at his trial in August 1867 that part of the plan of the Kerry rising was to seize all the arms from the coastguards and police stations, and from all the gentry who had them, and that a list of targets had been prepared for the night of the rising¹⁴.

The Admiralty reacted rapidly to these disturbances by instructing the Commissioners of Public Works in Dublin to submit plans for five new 'first class' defensible coastguard stations¹⁵. The description 'first class' designated a station under the charge of a naval officer, the distinction being that a second-class station had a chief boatman in charge. We know from plans dated September 1867, which was before the attempted escapes at Manchester and Clerkenwell, that Trevor Owen prepared drawings for a defensible station at Ballygeary near Rosslare.¹⁶ It, and four similar defensible stations, were built within the next few years. The five sites, with their Irish Grid map references, were:

- Ardmore, Co. Waterford (X1981 7723), completed in 1870.
- Ballygeary, Co. Wexford (T1025 1427), completed in 1870.
- Ballyheigue, Co Kerry (Q751 279), completed in 1870.
- Ballycastle, Co. Antrim (D1192 4137), completed in 1870.
- Courtmacsherry, Co. Cork (V5090 4258), completed only in 1872
(on account of delays in obtaining the lease).¹⁷

The original architect's drawings survive for the buildings at Ballyheigue, Ballygeary, and Courtmacsherry; and there are building instructions for the station at Ballycastle.¹⁸

These five terraces are unique in coastguard architecture in that all contain a massive defensive tower modelled on a medieval keep or *donjon*. In the architect's drawings of the towers the first-floor room is actually designated *Keep*. The walls were pierced with gun-loops, and turret machicolations extend from the roof parapets. The ground-floor rooms were vaulted with brick to reduce

¹⁴ John Savage, *Fenian Heroes and Martyrs* (Boston, 1868), p. 215.

¹⁵ Parliamentary Papers (H.C.) 1867-8 xxi, 36th Report of the Commissioners of Public Works, Ireland.

¹⁶ Nat. Arch. of Ire., OPW/5HC/4/439.

¹⁷ Parliamentary Papers (H.C.) 1870, xvii 347 and 1872, xiii 537, respectively the 38th and 40th Report of the Commissioners of Public Works, Ireland.

¹⁸ All found in the files of the Office of Public Works held at the National Archives of Ireland: OPW/5HC/4/439, 453 and 495.

the risk of a fire spreading to the upper stories, a feature found in sixteenth- and seventeenth-century Irish tower houses.

These towers bore no resemblance to the modest watchtowers attached to previous coastguard terraces, and their architectural language proclaimed a function more complex than the mere provision of an elevated watch room. Occupied by a sufficient force, such a tower could have sustained a concerted military attack; but no doubt their very appearance was also intended to be a deterrent to the launching of an attack. Always sited on high ground, these terraces dominated the coastal landscape; and even today some remain the largest structures for miles around. While they were positioned to provide a panoramic view of the coast, there is no doubt, as with their medieval predecessors, that their high visibility and aggressive military design were intended to be a physical proclamation of seigniorial authority. The Irish landscape is dotted with ancient castles and towers and the powerful symbolic significance of these massive keeps would not have been lost on the local population. The British Admiralty was stamping its authority on the Irish coast. In the light of the rumours of American support for the Fenians, these prominent fortifications, so conspicuous from the sea, proclaimed a defiant warning against foreign interference in Britain's Irish affairs.



Ballycastle coastguard station in the 1920s.
[Ulster Folk and Transport Museum, WAG 829]

Several of the towers are now partially obscured by trees and modern houses, but this striking photograph of the Ballycastle Station, taken in the 1920s, illustrates how the buildings were intended to dominate the coast. John Dallat, who edited the book in which the photograph appears, noted significantly that 'the coastguard station with its imposing tower gives the impression that it was some form of fortification', precisely the impression the Admiralty intended it to give.¹⁹

The map of Ireland below shows the distribution of the five stations: four of them on the coasts of southern counties, and the fifth, Ballycastle, on the north Antrim coast. An analysis of figures for arrests of Fenians between 1866 and 1868,²⁰ demonstrates that, apart from Co. Dublin, the Fenians were most active in the southern rural counties. The figures show too that there was appreciably more

¹⁹ Cahal Dallat, *A Tour of the Causeway Coast*, (Belfast: The Friars Bush Press, 1990), p. 3.

²⁰ Breandán Mac Suibhne and Amy Martin, 'Fenians in the Frame', in *Field Day Review*, No. 1 (2005), p. 103.

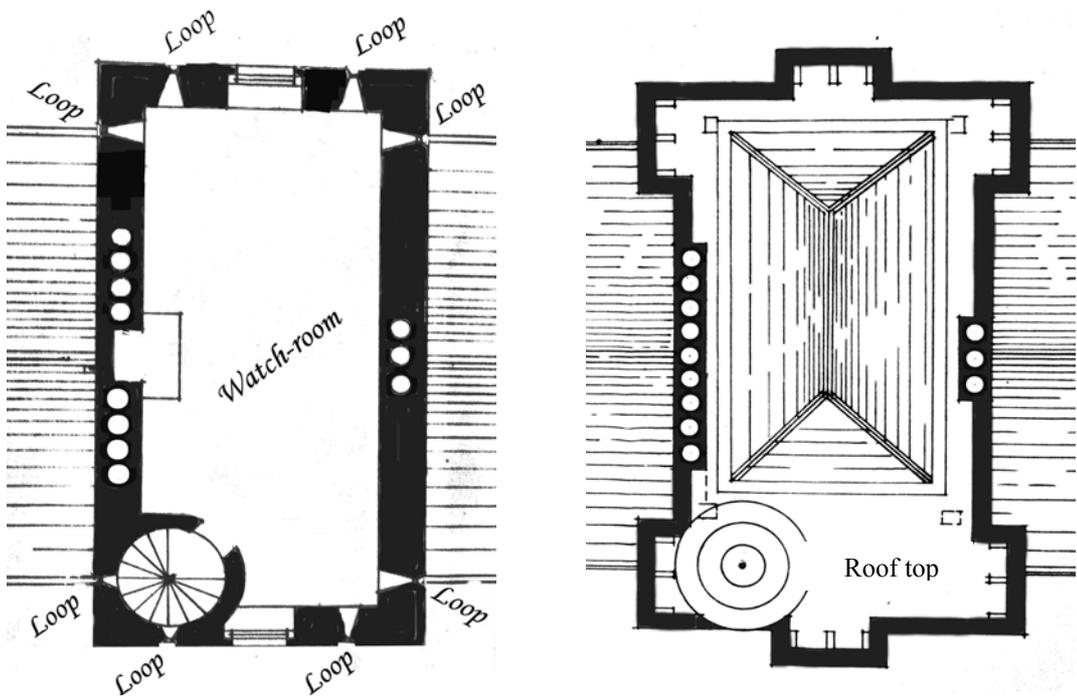
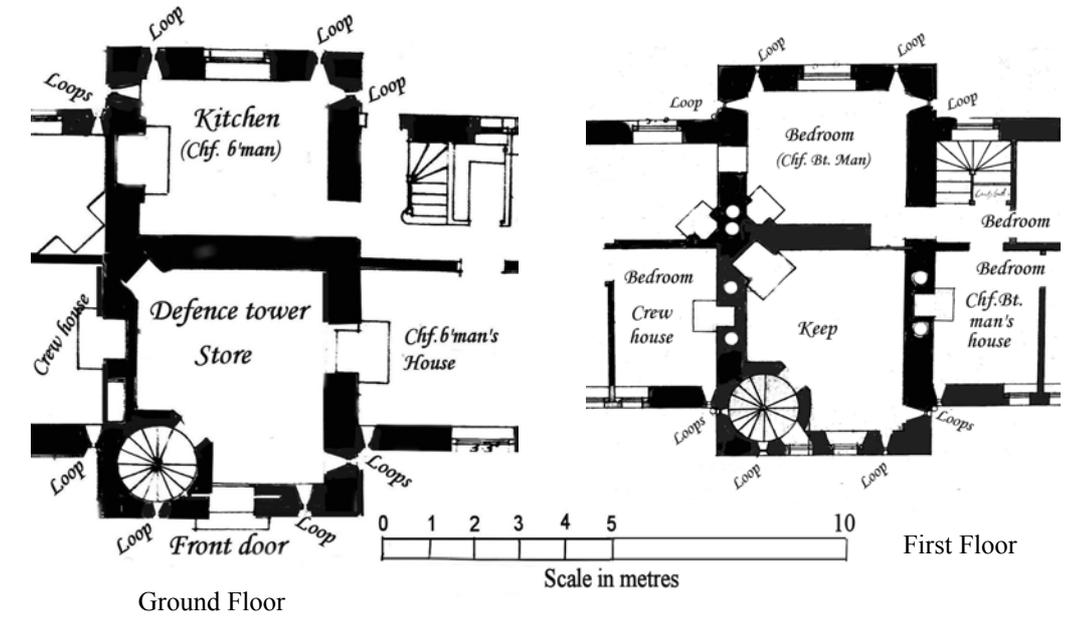
support for the Fenians in County Antrim than in any other county in Ulster, a fact that might explain the choice of Ballycastle as the site for a defensible station. The five stations were all situated at established ports and harbours that had been occupied by the Coastguard since the founding of the service in the 1820s.



Map of Ireland showing the sites of the five 'first class' defensible Coastguard Stations built in the wake of the Fenian rising of 1867.

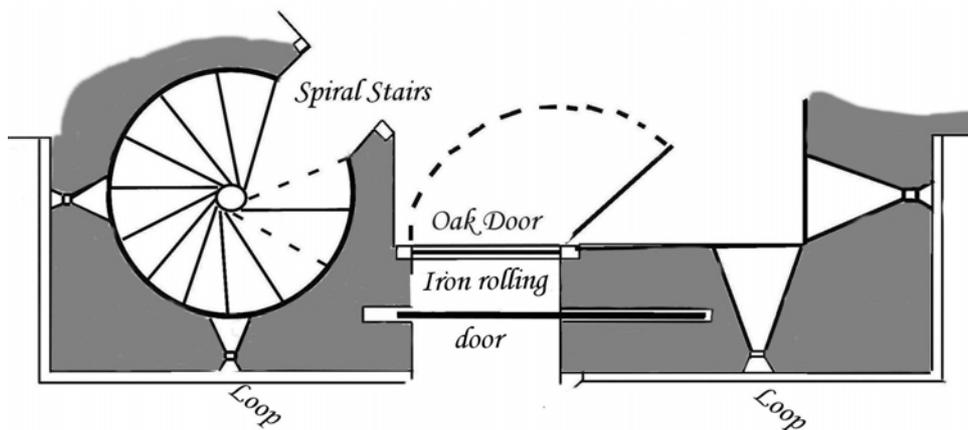
All had elaborate Keeps.

The following descriptions of the towers and terraces of the five 'first class' stations are based on the original plans held in the National Archives of Ireland, and portray the buildings as they were intended to be used by the Coastguard. On paper the plans of the five stations are virtually identical. The buildings consist of a substantial stone terrace of four to eight two-storey houses for members of the crew and a large two-storey officer's house with basement. While the crew houses have rear entrances only, the officer's house, as befitted the occupant's rank, had both a front and a rear entrance. Offices at the back of the terraces consisted of privies, fuel sheds and a communal laundry room.



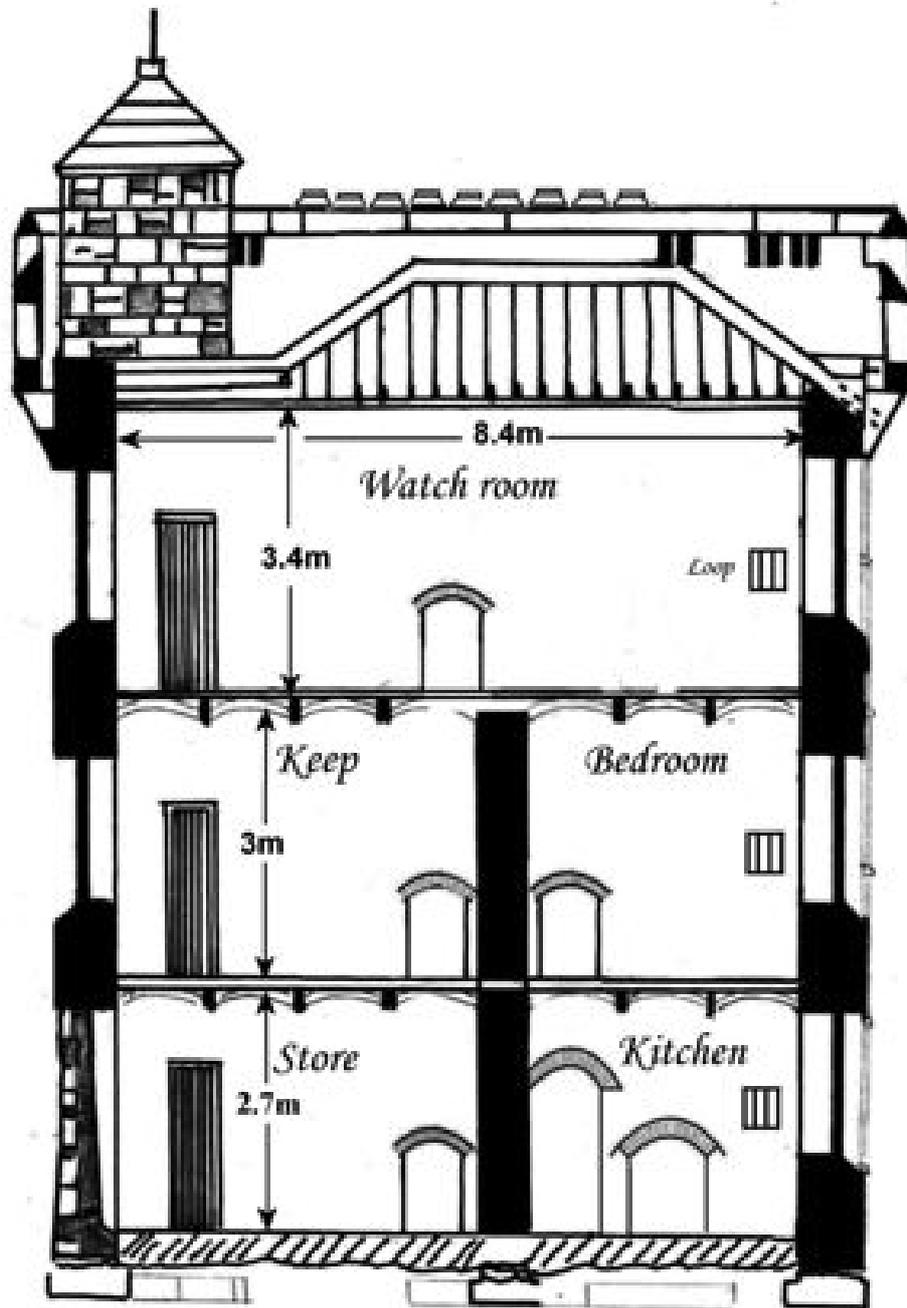
Floor plans of the tower at Ballyheigue Coastguard Station, Co. Kerry, showing fortification features [Based on drawings in Nat. Arch. of Ire., 5HC/4/453]

The three-storey fortified towers were placed within the terrace complexes and extended beyond the front and rear elevations of the houses. The towers are rectangular in plan, and rise three storeys from a battered base to a 1.8 m. high roof-parapet. Externally they measure approximately 10 m. by 6.8 m., and are 11 m. high. The walls, built of roughly coursed stone with ashlar quoins and dressings, are 0.8 m. thick. Access is from the front, through a central ground-level entrance that accommodated the frame for 'a ½ inch thick door ... made of best boiler plate with a close riveted margin of iron all round ½ inch thick and 2 inch wide'.²¹ When opened, this impressive door could be rolled into a mural cavity. Behind this iron defence was a wooden door, which suggests that the rolling door may not have remained permanently closed. Above the door on the first-floor is a pair of rectangular windows and on the second-floor a single point-headed window. The rear of the tower is similar to the front save that there is a square-headed ground-floor window in place of a door, and matching windows on the first and second floors. Narrow gun-loops splayed internally pierce the walls on every storey.

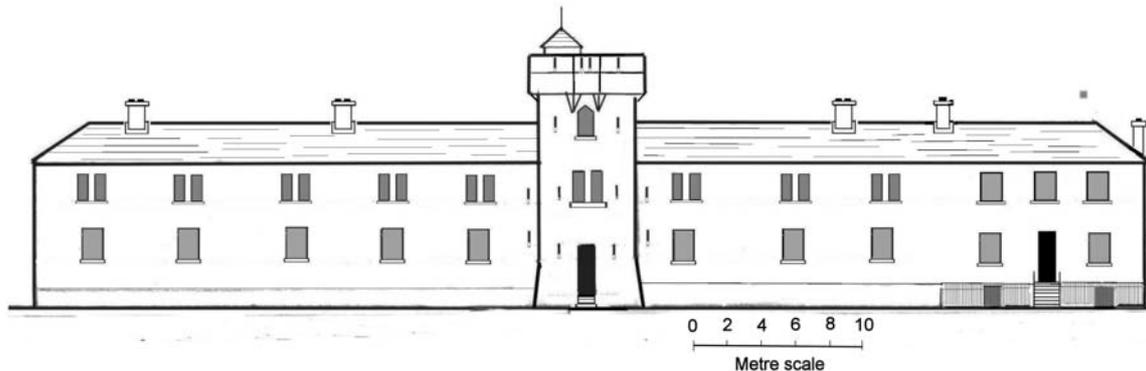


Plan of the entrance to the tower at Courtmacsherry Coastguard Station,
showing the recess for the rolling iron door
[Based on drawings in OPW/5NC/4/495]

²¹ Nat. Arch. of Ire., OPW 13230/69.



Cross-section of the tower at Ballygeary Coastguard Station, Co. Wexford.
based on drawings dated 1867 in OPW/5/HC/4/438.
Note the absence of a door in the bedroom party wall.



Front elevation of Courtmacsherry Coastguard Station, Co. Cork
(based on drawings dated 1868 in OPW/5HC/4/495)

Looking (opposite) at the cross-section of the Ballygeary tower, two rooms are found on the ground floor, vaulted with brick, and separated by a substantial cross wall. The front room, which is named *Store* in the architect's drawing, has a fireplace in the far left corner. To the left of the door a stone spiral stair, lit by two gun-loops, rises to the roof-top. The room has no windows and the only light comes from the loops. The room at the rear (to which there is no access from the front room) is the kitchen for the chief boatman's house. The kitchen contains an alcove for a range, and is lit by a 1.5 m. high window on the end wall.

The first-floor also contains two rooms. The front room, marked *Keep* on the drawings, is accessed from the *Store* below by the spiral stair. There is again a fireplace in the far left hand corner. The room is lit by one of the pair of front windows. The light from the other window (that on the left) is directed into the stair well. Light for the stairs and room comes also from gun-loops. The rear room, lit by a rear window and four gun-loops, is a fourth bedroom for the chief boatman's house. Access between the two rooms is afforded by a hinged wrought iron door.

The second-floor, with windows at front and rear, is accessed by the spiral stair only and runs the length of the tower, some 8.4 m. There is a single fireplace in the centre of the left wall. This room has two windows, one in each end wall. The long side walls are blank except for two narrow gun-loops. The designation on the plans is *Watch room*. To function as a watch room, the front window had necessarily to be orientated to face the coast.

It seems that the roof was intended to be used as a watching position, because, written on the Board of Works plans of the roofs, are instructions for the 'Lead flat to be covered with strong grated snow boards'. Presumably snow boards were what are today called duck boards. Exposure to the weather and the smoke from the chimneys must have made for an unpleasant watch, very much in contrast to conditions in the early watch houses built in the 1820s, where the watch rooms

were small and snug, and had a fire. Watch duty was seen to be so cosy that each night it was allocated to a different man. Perhaps in the defensible towers the watch duty was rotated nightly for the opposite reason that it was so unpleasant.

The parapets are 1.8 m. (6 feet) high. This would have prevented a man of average height from being able to look over them. It may be that the 'snow boards' were sufficiently raised to allow a view over the parapets; but, if they were not, the guard on watch duty would have been restricted to peering through the gun-loops. In their enthusiasm to reproduce authentic medieval *donjons*, Trevor Owen and his fellow architects at the Board of Works may have been distracted and caused to overlook the routine requirements of the coastguards.

The spiral stair opens onto the roof where the stairwell is protected by a small circular tower with a conical stone roof. Gun-loops pierce all sides of the parapet and machicolated turrets supported by pairs of pointed stone corbels project from the parapet over the entrance and at the ends of the long side-walls. Each turret is fortified with four wall-loops and three gun holes in the floors.

Shown on all the plans is a hip-roof which covers about three-quarters of the tower, leaving a flat area at the front end. The space between the eaves of the hip roof and chimney stakes was about a foot wide which would have restricted ease of movement around the top of the tower. All of the surviving towers today have flat roofs with the exception of Ballygeary, where the parapet was removed by the Board of Works and replaced by a full hip roof following storm damage in 1897.²²

The report of the I.R.A. officer who led a raid on Ballyheigue Coastguard Station in 1920 states that the tower 'had a flat roof'. It is not explained from where this information was obtained,²³ but it may be that the architects of the Board of Works decided to abandon the hip roofs even before the towers were built. There is nothing in the O.P.W. archives to suggest that the hip roofs were removed at a later time. Had this happened, such a major undertaking would surely have been recorded in the O.P.W records, as was the case at Ballygeary.

The bedrooms in the terraces were all interconnected to facilitate access to the whole top floor of the terrace in the event of an attack. The double doors between the bedrooms, the keys of which were held by the senior officer, were kept locked.

Dimensions of houses in the defensible terraces

Coastguard stations were grouped within divisions, each under the control of a divisional inspector who was usually a naval commander or lieutenant.²⁴ Divisions were named after the town or townland where the inspector resided. The stations were under the command of a Chief Officer 2nd class. The other ranks were Chief Boatman, Commissioned Boatman, and Boatman.

²² Parliamentary Papers (H.C.) 1897 xviii, 65th Annual Report of the Commissioners of Public Works, Ireland.

²³ Military Archives, Dublin. Bureau of Military History, 1913-21. Witness Statement No. 1,190.

²⁴ The Districts and Divisions are listed in Paul Kerrigan's *Note*, 'Irish Coastguard Stations, 1858-67', in *Ir. Sword*, xiv (No. 54: Summer 1980), pp 103-5.

Apart from the towers, the terraces contained houses for the officers and men. The size of the houses and the number of bedrooms they contained depended on the rank of the occupants. The floor area of a crew house, which contained three bedrooms, was 73 sq. m. The chief boatman's house, with four bedrooms, measured 87 sq. m. The large officer's house contained five bedrooms and measured 178 sq. m., and included a basement for servants. The officer's house had the convenience of an indoor water closet for himself and his family. An earth closet at the rear was provided for the use of servants. Each of the crew houses had an earth closet in the yard.

Two of the stations, Ballycastle and Ballyheigue, were already established divisional headquarters, but only the latter appears to have possessed a stable in the yard. Divisional inspectors carried out their visits of stations within their jurisdiction on horseback. It was usual for both the divisional officer and the naval station officer to reside in houses separate from the crew terrace, but it may have been that the Admiralty, in the light of the Fenian threat, decided it would be advisable to have the station officer accommodated with the crew.

The development of fortification features in the terraces.

The plans that exist for Ballygeary, Courtmacsherry and Ballyheigue stations are practically identical, but changes were made during their construction, particularly to defensive features. The end houses on the terraces of Ballyheigue and Ballycastle have blank gables; Ardmore has a row of three slit gun-loops; and Courtmacsherry and Ballygeary have had box machicolations added. The gun-loops represented on the plans are narrow rectangular openings with chamfered sills, but at Courtmacsherry, the last of the terraces to be built, some of the loops have evolved into a small square hole set in a single block of limestone with a



Ballycastle
(1870)



Ardmore
(1870)



Courtmacsherry
(1872)



Cultra
(1870)

Development of gun-loop design at the fortified Irish Coastguard Stations

shallow scallop-shell beveled beneath it. This is a shape that is found, modified further, in the smaller fortified terraces of later times that are described in the second part of this article. In these the loop is elongated into a teardrop shape.

The teardrop loop had already appeared on smaller terraces built two years before the completion of Courtmacsherry. Most of the teardrop loops were carved from sandstone blocks, and it may be that the limestone at Courtmacsherry proved too hard for the masons to carve an elegant loop.

THE FIVE 'FIRST CLASS' TERRACES WITH DEFENSIBLE TOWERS AS THEY LOOK TODAY

Apart from Ballyheigue, which remains a ruin following an arson attack by the I.R.A. in 1920,²⁵ the other four stations are occupied today. Most have been modified for modern living.

Ballycastle, Co. Antrim

The terrace at Ballycastle, situated on the north Antrim coast opposite Rathlin Island, was placed in a commanding position, but the direction of the slope of the hill required it to face south overlooking the town and the countryside beyond. The east side of the tower presented a blank wall to the coast, with the result that only a small section of the sea was visible from the front window. The rear window faces a hill.



Ballycastle Coatguard Station in 2013.
The blind parapet on the tower is a replacement

²⁵ Coastguard stations were among buildings targeted by the I.R.A. in the early 1920s when several in the southern counties were burnt to prevent their being occupied by government troops. However, with the exception of the terrace at Torr Head in Co. Antrim, there were practically no arson attacks on stations in the north-eastern counties.

By the late 1990s the buildings at Ballycastle were in a neglected condition and several of the houses were vacant. A new owner who acquired the station in mid-2010 has carried out considerable refurbishment work. Unfortunately, during the restoration of the tower, the roof parapet, because it was constructed of brick, was assumed to have been a modern addition, and the Northern Ireland Historic Buildings Authority permitted the owner to remove it. In fact, in 1869, when construction was nearing its end, and the building costs threatened to run over budget, the Board of Works in Dublin had decided to use brick for the parapet instead of the stone that was originally intended.²⁶ The parapet has since been rebuilt with fresh bricks, but without the gun loops.



When the Ballycastle Tower was visited in 1975, the iron sliding door was still in place in its mural recess.

Ballygeary, Co Wexford

Ballygeary defensible terrace was completed in 1870, which was before the harbour at Rosslare was developed as a ferry port. It stands near the edge of a raised beach overlooking the Irish Sea. The terrace was not touched during the Irish Civil War, although a fierce storm in 1879 severely damaged the roof and parapet, which were replaced by a hip roof. The crew houses have been developed as a series of uniform holiday homes. Along with the tower and chief officer's house, they are painted in cream and white, thus retaining the integrity of the terrace as a single unit. The gun-loops have been plastered over and the machicolations on the gables have been removed, but even without these fortification features, and notwithstanding the additions of covered porches, the terrace is still recognisable as a defensible coastguard station.

²⁶ Nat. Arch. of Ire., OPW 13,230, correspondence.



BALLYGEARY COASTGUARD STATION, CO. WEXFORD

[above] in 1897, before the parapet was replaced by a hip roof;
and [below] in 2013



Ardmore, Co. Waterford

The Ardmore station stands high above Ardmore town facing across Ardmore Bay. In the early 1920s twenty-five Royal Marines augmented the coastguard personnel until the station was abandoned in 1921. It was taken over by the

republicans on independence and subsequently burnt. The terrace is now a single private residence.²⁷



[above] Old Ardmore Coastguard station in 2007, with the modern station to its right
[Photo: Liam Cahill]

[below] Ardmore Station before restoration
[Photo: © T. Daly]



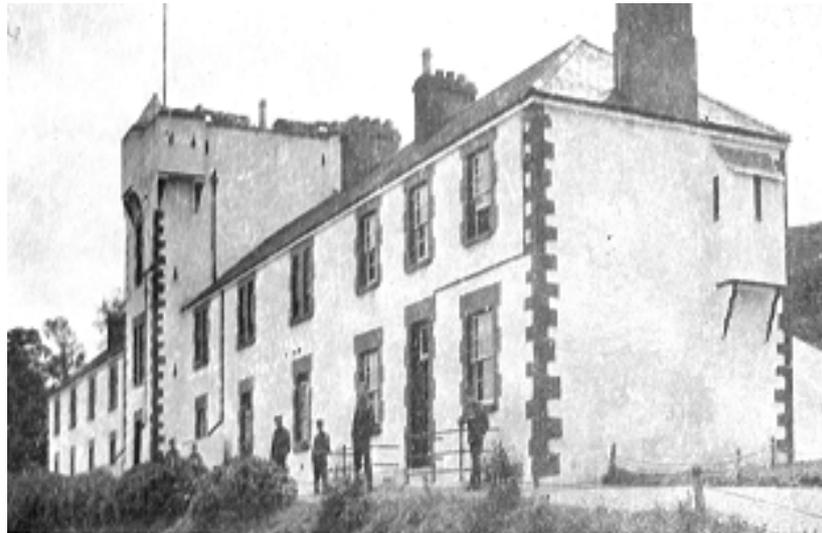
Ardmore Co. Waterford

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²⁷ Siobhán Lincoln, Waterford Museum; Nat. Arch. of Ire., OPW 7/2/1.

Courtmacsherry Coastguard Station

Courtmacsherry Station dominates the village and guards the entrance to the Argideen River. In 1921 it was occupied by a party of the Essex Regiment who on the 13 May of that year came under attack by members of Barryroe Company, Lislevane Section, of the I.R.A.,²⁸ but it was not until after the Truce that the building was burnt.²⁹ It lay derelict until the early 1970s when the eight houses were renovated by the present owner. They are now let as apartments.



Courtmacsherry Coastguard Station: [above] c. 1914-18; [below], in 2013



²⁸ Bureau of Military History, Witness Statement No. 1,290.

²⁹ OPW 7/2/1. The 1914-18 photo appears by courtesy of Tom Maguire and Mary O'Leary.

Ballyheigue, Co. Kerry

In May 1920 the Ballyheigue Coastguard Station (seen below, in a pre-1920 photograph) was attacked by fifteen members of the local Company of Irish Volunteers led by Captain Michael Pierce, who stated that at 2 a.m. they set fire to one end of the terrace while the crew and their families were asleep, as reputedly was the man on watch duty.³⁰ Before being repelled by the rapid spread of the fire the insurgents were able to collect six Verrey light pistols, seven field glasses, one telescope, two rocket guns, three Morse code lamps, and other equipment. Because of the rapid spread of the fire they missed seven rifles and a large quantity of ammunition in the gunroom. The attackers then emptied the water tank, filling it with a mixture of petrol and paraffin, and turned on the tap for the fuel to run down to the building. All members of the coastguard and their families escaped from the building and were collected by a gun-boat the next day. The building was never repaired and the terrace and tower remain a ruin.



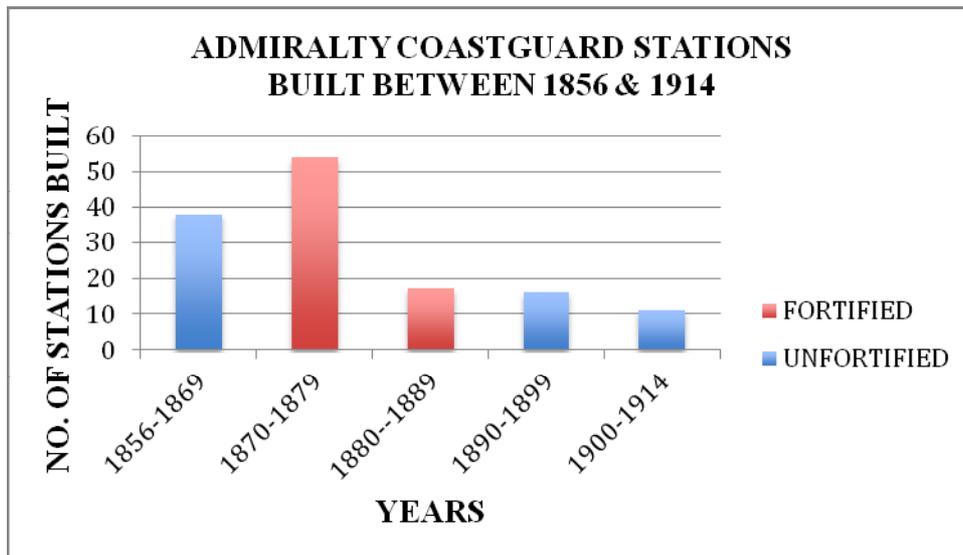
The stable and groom's quarters can be seen in the photograph at the rear of the terrace, are a hint that the divisional inspector may have been resident in the large house. This would have been unusual as it was the protocol for the inspector, a senior naval officer, to be accommodated in a detached house some distance from the crew dwellings. These houses are sometimes shown on the O.S. six-inch maps as *Admiralty House*.

³⁰ Bureau of Military History, 1913-21. Witness Statement No. 1,190. The captain was later threatened with court martial for acting without the permission of his senior commander.

**THE EXTENT OF THE ADMIRALTY COASTGUARD STATION
BUILDING PROGRAMME**

The Admiralty, having taken over responsibility for the Irish Coastguard in 1857, proved to be an energetic builder. In the first dozen years, ending in 1869, thirty-eight new coastguard terraces were completed, all of which were unfortified. It is a curiosity that, notwithstanding the attention to fortification that afterwards characterizes the design of new stations, there is no evidence that any attempt was made to fortify any of these pre-existing stations.

The two decades between 1870 and 1889 were those of greatest activity. 71 terraces were built in this twenty-year period, 54 of them in the decade 1870-1879. While not all of these 71 stations or their plans have been inspected by the writer, it is safe to say that the great majority of them were fortified.



After 1880 the pace of building began to slacken. 17 stations, mostly fortified, were built between then and 1889, but no fortified station was built after 1889. The twenty-seven stations completed between 1890 and the start of the War in 1914 were unfortified.

PART II: FORTIFIED COASTGUARD STATIONS, 1870-1889

As soon as the plans for the five imposing 'first class' defensible stations with keeps had been agreed, and building work on them had begun, the architects of the Board of Works in Dublin turned their attention to designing more traditional, smaller terraces. These were similar to Ball Hill in Co. Donegal [illustrated above at p. 278], save that they now had fortifications. The plans for the stations at Seafield, Co. Clare, and Cultra, Co. Down, are dated 1870.

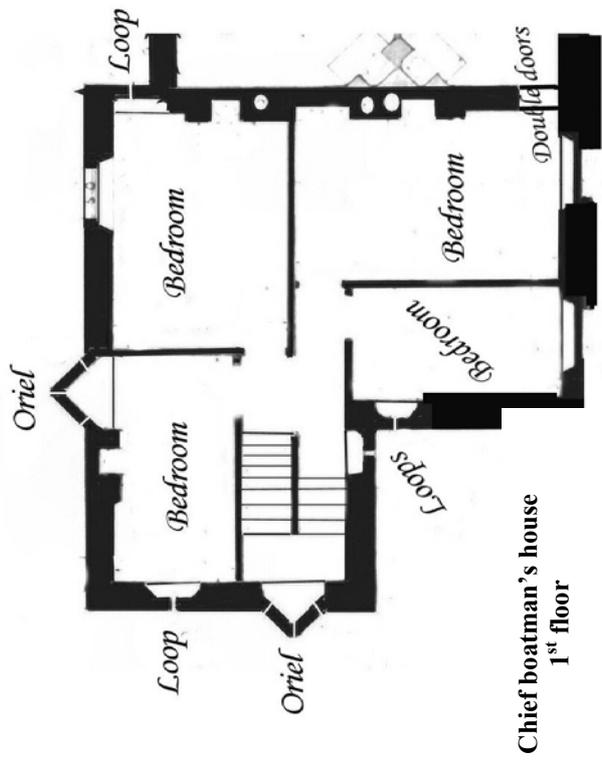
As with earlier stations such as Ball Hill, these fortified buildings contained three essential elements: a house for the chief boatman in charge; a watch tower; and a line of houses for the crew. The arrangement of houses and towers within the terrace varied from station to station,³¹ but common defensive principles are observed that distinguish the design of the post-1870 terraces from that of the earlier buildings. The employment of such principles is exemplified by the strategic placing of gun-loops to provide raking fire along all four faces of the buildings. The towers and chief boatmen's houses were often set slightly forward from the faces of the terrace and gun-loops pierced their returns. First-floor fortified oriel windows were inserted into the faces of the tower and on the sides of the house of the chief boatman. Another defensive borrowing from the design of the big five 'first class' terraces is that double doors connected all the bedrooms to provide clear access to the whole of the first floor in time of attack. These features can be seen in the plans of Seafield, Co. Clare, designed in 1870, where the walls are pitted with gun-loops, all concentrated within the chief boatman's house and in the watch tower. The same features are found elsewhere, *inter alia*, at Cultra, Co. Down, and Whitehead, Co. Antrim, photographs of which appear overleaf.

The architectural vocabulary of these new buildings emphasises the hierarchical ranks of the residents more conspicuously than had been the case with the pre-1867 stations. The chief boatman's house is often distinguished as a two-window-wide gable bay with a front door. A front door, an innovation, was accorded to the residence of the man in charge of a station, as a symbol of rank, and as the formal entrance through which he could receive important visitors such as the divisional inspector, local gentry or police officers. Back doors were now seen as thresholds for informal visits.

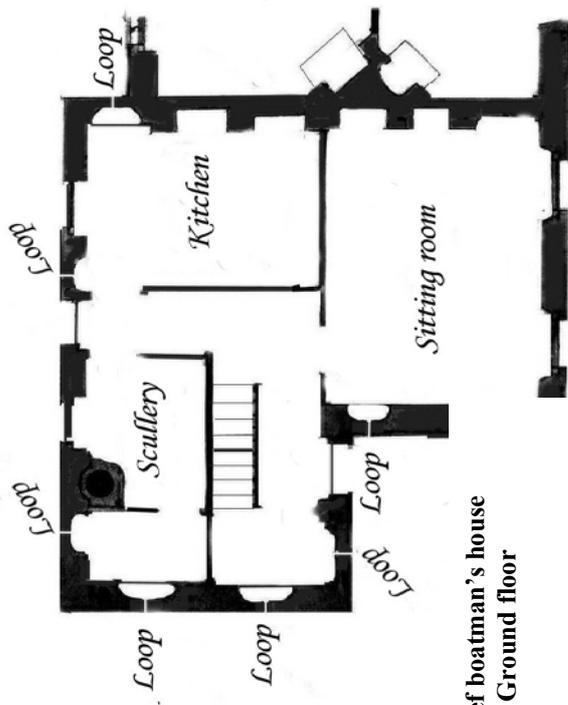
The Watch Towers

Both in size and design, the towers of these fortified terraces are very different from the massive medieval keeps of the big five. In plan they are square, generally measuring 3.7 m. x 3.7 m. internally, and they rise 30 m. from a battered base to the eaves of a pyramidal roof finished with a weather vane.

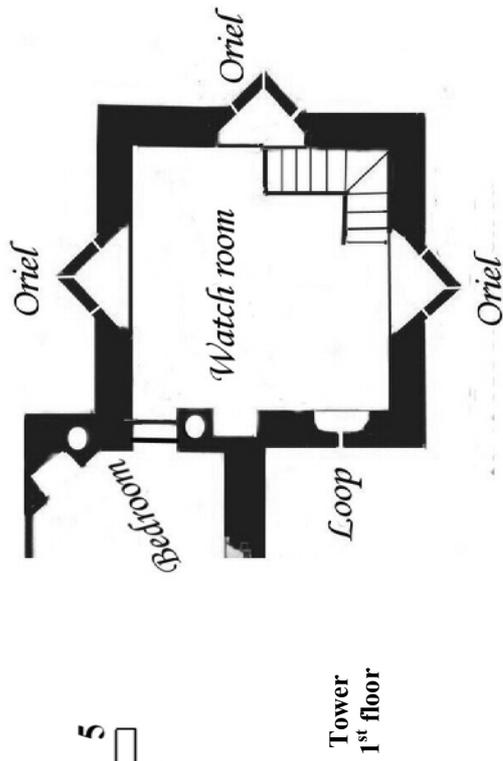
³¹ Curiously, in the stations built after 1870, the size of the houses was not standard. The floor areas of chief boatmen's houses ranged from 70 sq. m. to 110 sq. m., and crew houses from 50 sq. m. to 70 sq. m. Hopefully crew were allocated stations according to the size of their families. Some of the larger stations accommodated up to 50 men, women, and children.



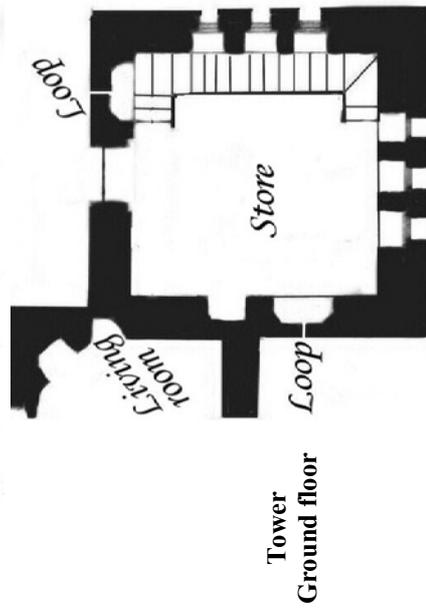
Chief boatman's house
1st floor



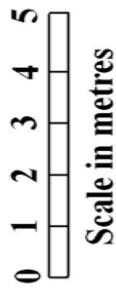
Chief boatman's house
Ground floor



Tower
1st floor



Tower
Ground floor



Scale in metres

Plans of chief boatman's houses and watch towers for fortified terraces at Seafield, Co. Clare; Cultra, Co. Down; and Whitehead, Co. Antrim

[The Irish Sword, vol. XXX (no. 121), p. 296]

[Based on drawings in OPW 5HC/4/551]

Usually two storeys high, they had a store for arms and ammunition on the ground floor and a watch room above. Where the chief boatman's house was built next to the tower, a bedroom was inserted between the store and the watch room.



These photographs, taken in 2013, show the Coastguard Stations at Cultra (above) and Whitehead (below). At Whitehead the front doors are a modern addition, as are the central pair of windows on the tower where an intermediate floor has been inserted.



Although fortified with gun-loops, these towers present none of the seigniorial arrogance of the *donjon* type. Indeed the intention seems to have been to soften

the appearances of the terraces to make them look more domestic than military. On the other hand, instead of excavating a flat area for the building, as had previously been the general practice, the fronts of the new terraces were often raised on plinths or platforms which increased their dominance of the landscape, especially when seen from the sea. There is little doubt that the Admiralty's purpose in elevating the terraces was to increase their apparent size and thus emphasise the authority of the British Coastguard along the Irish coast.

The coastguard stations built in England around this time are of a quite different character. Because they were not built to a standard set of plans, as was the case with the Irish terraces, each station has its own individuality. They are more like domestic terrace housing; there has been no effort to stamp their presence on the landscape; and, of course, no attempt at fortification. Some stations made use of Napoleonic Martello towers, but that was for convenience of accommodation, not defence

In trying to stamp its authority on the coast, the Admiralty did not always get its way. Plans for a new coastguard station at Cultra in Co. Down had been prepared by 1870. The Holywood-Bangor railway had been built, and the Kennedys, who were the local landlords, and were developing gentlemen's residences, were reluctant to have the coastguard station near their shore. Eventually a site was found some 500 metres from the coast, and the Admiralty was directed that the terrace there should be of an 'ornamental character'. An early plan shows the terrace raised on a plinth with seven steps leading to the front door of the chief boatman's house. The Kennedys must have objected that the building was too conspicuous because the terrace that exists today rests on flat ground with no steps to the door.³² The effect of removing the platform was nicely described by Sir Charles Brett, who described the station as 'a delightful terrace of five modest brick cottages ... very similar to, but rather smaller and prettier than the group's opposite number across the lough at Whitehead'.³³ In fact the design and dimensions of the terraces at Cultra and Whitehead are practically identical. The Whitehead terrace is longer by one crew house, but its prominent position overlooking the lough on steeply rising ground, with the ground floor raised a metre or more above the slope of the hill, gives the building a dominating appearance. Had the Cultra terrace been built on the intended platform it would have presented an appearance quite different from the 'five modest brick cottages' of the present building.

³² P.R.O.N.I: FIN /6/5/1.

³³ C.E.B. Brett and T. Merrick, *The Buildings of North County Down* (Belfast, Ulster Architectural Heritage Society and Ulster Historical Foundation, 2002), p. 257.

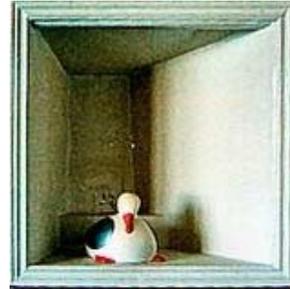
DEFENSIVE FEATURES OF THE POST-1870 TERRACES

(i) Gun-loops

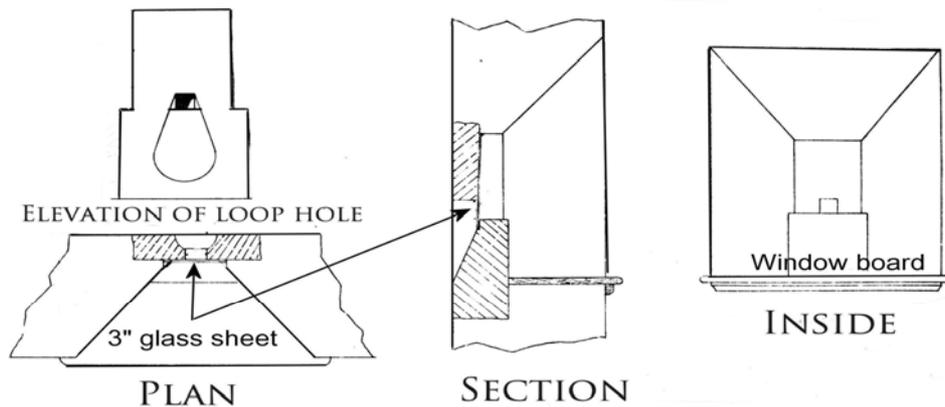


The gun-loops found in the fortified terraces are unique to Irish coastguard stations. Their designs appear to have developed from the loops of the defensible towers. Carved from one or two blocks of stone, the loop is chamfered downwards in the shape of a teardrop. At its top is a glazed gun hole blocked by a 3-inch square of 21-oz. glass which, in the case of attack, would be smashed by the barrel of a rifle. As with the defensible towers the downward slope of the chamfer would allow defenders to aim towards the ground close to the base of the houses. This suggests that attacks by stealth, rather than

by artillery bombardment, were the expectation. On the inside of the building the sides and top of the loop were splayed and there was a sill to support the gun. The loop photographed (right) can well accommodate an ornamental duck.



The elegant design of the loops may have been intended to make them look more decorative, and less aggressive, than traditional gun-slits. Indeed, they are so unlike traditional gun-loops that their original function can be a puzzle to people today: this is apparent from the description of the coastguard terrace at



DETAIL OF WALL LOOPS IN FORTIFIED COASTGUARD STATIONS
(based on drawings in OPW 5HC/4/519)

Newcastle, County Down, published in the Northern Ireland Historic Buildings Record.³⁴

Within the porch are two chamfered and painted stones. Each has a small round [*sic*] hole positioned at the top of the chamfer. The purpose of this stone is not known, however similar stones were observed in the [coastguard] houses at Millisle.

Defensive features of the post-1870 terraces: (ii) Oriel windows

Another distinctive element of the post-1870 terraces was the fortified oriel window, which comes in box and triangular variants. The two types never appear together on the same building. Equipped with gun-loops in their sides, and gun holes in the floor, they resemble domestic machicolations.

Box oriels

The box oriel, as seen in the example (below, left) from Portaferry Coastguard Station, is supported on a pair of corbel brackets. There is a sash window that can be defended by hinged metal shutters with gun holes. When closed, these cover the lower half of the window. There are gun-loops on the sides, and the floor is punctured with gun holes. It may be that this type of oriel developed from the box machicolations that are on the gables of the defensible terraces at Ballygeary and Courtmacsherry. The photograph, below right, shows the box machicolation at Courtmacsherry.



³⁴ Northern Ireland Historic Buildings Record, NIEA: HB 18/14/012. See: <http://www.doeni.gov.uk/niea/content-databases-buildview?id=4979&js=true>.



The triangular oriel is exemplified in the accompanying photograph of the tower of Cultra Coastguard Station, built in 1870. The triangular oriel rests on a single central corbel. Loops pierce the sides at the three corners near the base of the window and there is a gun hole in the floor. The triangular window has an advantage over that of the box oriel in that an observer within has a view of 180-degrees. The square oriel provides only a clear forward view. Vision to the side though the 3-inch square gun hole is restricted. As with the single window of the box oriel, the two windows of the triangular variant can be shielded by metal shutters.

Defensive features of the post-1870 terraces: (iii) interconnecting bedrooms, and the mystery of their omission from the plans

In the course of compiling a gazetteer of the nineteenth-century coastguard stations in Northern Ireland, the author had occasion to visit all the stations in Ulster and a few sites in other counties (including the four imposing defensible stations on the southern coast). He was also able to examine the drawings of eighteen fortified station. With practically no exceptions, details of the exterior fortification of gun-loops and oriel windows appear on the drawings.

In the case of the connecting bedroom doors, however, seven examples can be found where such features were initially omitted from drawings, and had to be inserted into the final drafts of the plans. The 1867 drawings of the towers of Ballyheigue and Ballygeary do not include the doors connecting the chief boatman's bedroom with the adjoining crew house.³⁵ The connecting bedroom doors are also missing from the 1870 set of builder's drawings for the terrace at Cultra, an omission that prompted the Admiralty to write instructing the Board to include them.³⁶ On the plans of four other terraces, smudge marks at the connecting doors suggest that the gaps had been made by rubbing out part of the walls after the drawings had been completed.³⁷ In the case of one station,

³⁵ Ballygeary, OPW5HC/4/439; Ballyheigue, OPW5HC/4/453.

³⁶ P.R.O.N.I.: FIN 16/5/1

³⁷ Examples: Seafield, OPW 5HC/4/551, 1870; Moville, OPW 5HC/4/574, 1875; Clogher, OPW 5HC/4/488, 1884; Moville, OPW 5HC/4/575, 1885.

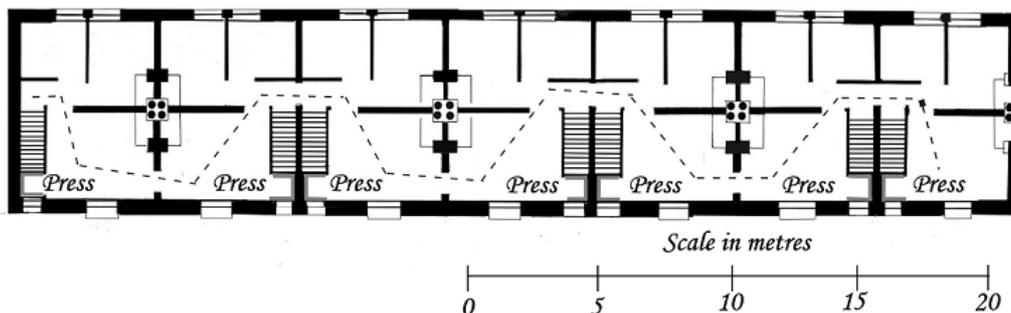
Newcastle, Co. Down, the connecting doors were omitted altogether, and the terrace was completed in 1878 without them.³⁸

The absence of doors is mainly observed in the drawings of early fortified stations and of those built near the end of the era of fortified terraces. This may be evidence that the officers of the Board of Works in Dublin, and maybe the coastguard officers themselves, did not see the necessity of preserving a free passage through the top floor of the terraces. While in theory the idea of providing open passage through the length of the upper floor may have been a good defensive strategy, in practice it must have taken much time to put into effect. For instance, in the case of a sudden attack on a terrace containing a chief boatman's and seven crew houses, sixteen doors would have had to be unlocked in sequence before access to, and distribution of, the weapons could have been achieved. After that the men had to find positions at appropriate gun-loops.

At the Inishbofin (1870) and Teelin (1872) stations, the watch room was reached by a ladder from the bedroom. As the weapons and ammunition were kept in the store on the ground floor of the tower, the ladder, with crew members scrabbling up and down, would have been a hazard in the heat of an attack. This adds to the evidence of Board of Works indifference to providing open passage through the bedrooms.

Built-in presses

In the 1880s, towards the end of the period of fortified stations, the presence of built-in presses in certain terraces (an innovation from America?) dictated serpentine routes through the rooms. The zigzag course must have impeded rapid movement. It is curious that the placing of cupboards should have taken priority over the provision of a clear way across the upper floor.³⁹ In the case of the



This plan of the first floor of the Movable terrace (based on OPW/5HC/4/575) shows the circuitous route through the bedrooms necessitated by the presence of the built-in cupboards or presses.

³⁸ The occupant of the chief boatman's house told the author that during redecoration he had stripped the plaster from the party wall of both bedrooms and had found no evidence of a connecting door.

³⁹ Clogher, OPW 5HC/4/488, 1884; Arklow, OPW 5HC/4/848, 1884; Ballynass, OPW 5HC/4/449, 1886; Mullroy, OPW 5HC/4/534, 1886; Movable, OPW/5HC/4/575, 1885.

terrace built at Moville in 1885 there are again smudge marks on the drawings at the gaps for the connecting doors where the doors were inserted after the plans had been completed. This terrace was to accommodate additional crew for the Moville station. It is completely without fortification, having neither loops nor oriels, and no watchtower or store for arms and ammunition. This prompts one to ask what purpose was served by providing a passage through these bedrooms, and to ponder whether an Admiralty clerk, observing bureaucratic correctness, was merely following to the letter an instruction that all new Irish coastguard stations should have connecting bedrooms.

The eighteen terraces selected for examination are a small sample of the total of seventy-one, but the fact that the connecting bedroom doors were omitted in eight of the eighteen sets of plans inspected, seems to show, at the least, a certain lack of attention to detail by the officers of the Board of Works. That no other fortification feature was regularly overlooked might also suggest that there was a degree of scepticism about the need to provide a passage through the first floor,

Unfortified stations

The terrace at Ballygalley, Co. Antrim, seems to be a unique example for its time of a station without any fortification. In being single-storey, it is also unlike any other coastguard station of its period in Ireland. Designed by William Gray, who was the Belfast District Inspector for the Office of Public Works, Ballygalley was built in 1875, three years after the Larne and Stranraer Steamboat Company began regular sailings.

It was not until much later, in the late 1890s, that other unfortified coastguard stations were constructed in County Antrim. Robert Cochrane, as Surveyor for the Board of Works, designed several of them. Cochrane's coastguard stations, like that at Glenarm (photographed overleaf), represent a complete departure from the austere fortified terraces of the previous thirty years. His buildings no longer resemble barracks, and are fully domestic in appearance.



Glenarm Coastguard Station, Co. Antrim

The buildings today

The fate of the fortified coastguard stations has been varied. Many have been restored as private dwellings, and some are let as holiday homes. Of those that have not been made habitable, some, because of their remoteness, languish abandoned, gaunt reminders of an imperial past. Others, too badly damaged in the 1920s to merit repair, still bear witness to that bitter period in modern Ireland's history.