The Coastal Batteries

1. The Lord's Defences : to the Revestment

By R. A. Curphey

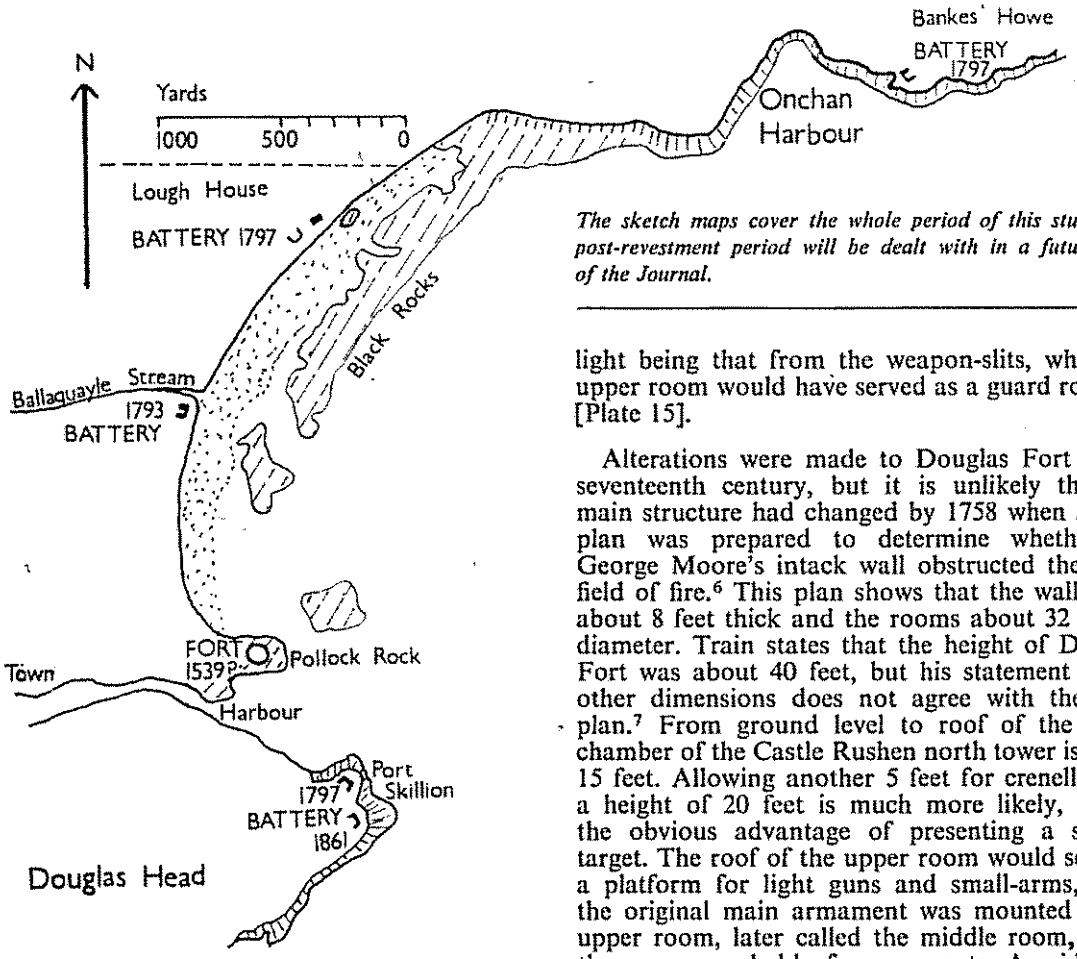
FOR about three centuries 'the great guns', smooth-bore cannon of brass or cast iron constituted an integral part of the defences of the Isle of Man. Their development in the fifteenth and early sixteenth centuries made it possible to deny to intruders the harbours and safe anchorages of the Island until the British naval supremacy of the nineteenth century, secured in the Napoleonic wars, made this no longer necessary. Thus from 1539 to 1822, with a brief and curious renewal in the mid-nineteenth century, on almost every occasion of war or threat of war, new batteries were constructed and old ones restored. Each harbour presented its own defensive problem, and in the solutions devised for them it is possible to see the defenders' appreciation of changing circumstances and the limitations of their weapons.

The smooth-bore cannon had a long life. There was no essential difference in mechanism and manufacture between those of 1540 and those in use in 1840, although there were some improvements in the mountings. They fired a solid, non-exploding roundshot, the heaviest of which seldom weighed more than 32 lb. to an effective point-blank range of about 400 yards. Beyond that range accuracy and penetration were lost, and damage was rare. Accuracy required a sound estimate of the distance of the target, exact means of elevating the gun to the required angle, and a tight fit of the shot in the barrel. Muzzle-loading made the last impossible, range-finding was primitive and the guns were elevated by withdrawing a large wedge, the quoin, from under the breach. When time was available the angle of elevation could be fixed by plumbole and scale in the muzzle, but usually guns were aimed by 'line of sight'. Most warships of Nelson's day, armed with these guns, carried range charts. They show that to hit the enemy ship at the waterline at 600 yards range it was necessary to aim over the hull; at 800 yards, at the maintop; and at 1,280 yards, at the top-gallant mast. It was the deficiencies of his armament that induced Nelson 'to get so close to our enemies that our shot cannot miss the object', and to fight his battles with the sides of his ship grinding those of the enemy. These conditions still prevailed as late as 1862, for when the Douglas Volunteer Artillery Corps first fired their new 32-pounders, an examination of the target set at 1,700 yards showed that only a part of the shot was lodged in it.[1] Defence of a bay therefore required that the shore batteries should be close to the water-line and about 800 yards apart. Only thus situated could the gunners secure the flat trajectory which gave accuracy, smashing-power, and complete cover of the beach.

The first requirement may be seen in the siting of the three batteries initially built to defend the harbours of Derbyhaven (Castletown), Peel and Douglas. Each battery was a round tower with stone walls about eight feet thick, that on St. Michael's Island to defend Derbyhaven having eight gunports, that on the Horse Rock at Peel having three, and the Old Fort on the Pollock Rock at Douglas having probably four. No documentary evidence has yet come to light to support O'Neil's conviction that these and the artillery fortification of Castle Rushen, the glacis and its three round towers, were built by Edward, 3rd Earl of Derby, who was 'active in the defence of the North *c.*1536–43' in Henry's quarrel with the Scots and French, and feared invasion. Certainly in form these defences belong to this period: Henry's coastal forts, e.g. Deal and Walmer, were all built on the same principle of the curved stone wall (the principle of straight, thick earth walls with angled bastions, as at Ballachurry, Andreas, was just coming into use in Italy in 1530), and O'Neil points out that the fort on St. Michael's Island 'in general form resembles the outer wall of one of the defences of Calais *c.*1541',[2] whilst its gunports, having no external splay, are so primitive as to restrict the guns' traverse.

In this respect the Peel battery was a considerable improvement, and probably of later construction, for the three gunports have both internal and external splay and thus a much greater arc of fire. Two guns covered the approach into the bay, and the third, now the doorway from the breakwater, flanked the one point on St. Patrick's Isle where ships could beach at low tide and a landing be made. Both batteries had an all-round field of fire except for the approach from the land, the one from the number of its guns, and the other from its guns' greater arc of fire. Both were also built to the same basic design of a small-arms platform over the main gun platform with an open well in the centre. [Plate 15].

Douglas fort, which was pulled down in 1818, is depicted on Speed's map of 1605 as a simple



The sketch maps cover the whole period of this study. The post-revestment period will be dealt with in a future issue of the Journal.

crenellated tower. It was old enough in 1605 to need new gun carriages, ropes, sponges, match, and repair to the platform.[3] According to Dr. Oswald the fort was 'of similar construction'[4] to the north tower on the glacis of Castle Rushen, which still survives. This was a two-storied building, the corbels to carry the floor and roof of the upper room being still in place. The upper room had a fireplace with a chimney built into the thickness of the wall and was reached by means of a winding staircase also in the thickness of the wall. One step of the second flight to the roof can still be seen. Oswald's evidence is supported by a report of 1811 on the condition of prisons, in which it is stated that the gaol in Douglas had 'two rooms, one of which was used as a black hole for the military as well as a prison for civil offenders . . . One of the apartments has a fireplace in it, also a guard bed and other conveniences'.[5] The lower room of Castle Rushen north tower would have well served the purpose of a black hole, the only light being that from the weapon-slits, while the upper room would have served as a guard room. [Plate 15].

Alterations were made to Douglas Fort in the seventeenth century, but it is unlikely that the main structure had changed by 1758 when a scale plan was prepared to determine whether Sir George Moore's intack wall obstructed the fort's field of fire.[6] This plan shows that the walls were about 8 feet thick and the rooms about 32 feet in diameter. Train states that the height of Douglas Fort was about 40 feet, but his statement of the other dimensions does not agree with the scale plan.[7] From ground level to roof of the upper chamber of the Castle Rushen north tower is about 15 feet. Allowing another 5 feet for crenellations, a height of 20 feet is much more likely, having the obvious advantage of presenting a smaller target. The roof of the upper room would serve as a platform for light guns and small-arms, while the original main armament was mounted in the upper room, later called the middle room, where there were probably four gunports. A mid-eighteenth century map of Douglas Harbour with a sketch of the fort shows three guns projecting from ports midway up the tower.[8] During Blundell's stay in the Island, 1642–8, it had four pieces of ordnance,[9] and in 1651 it surrendered to the Parliamentary forces four sling-pieces* without chambers and three other guns, a saker, a falken and a fulkennet.[10] Sling-pieces were primitive breech-loaders, the chamber being the detachable breech, which fired shot from 2–14 lb. in weight, and which were used to the end of the seventeenth century in confined spaces where muzzle-loaders could not be used. The four sling-pieces were probably mounted in the upper room and the three other guns, which were lighter, on the roof. The saker and the sling-pieces could not have been brought up the staircase, and the 'three blocks for hoysting guns'[11] in store in 1694 must have

* For archaic gun terms see glossary, page 57.

been used to lift the guns up the outside of the fort to their positions.

'A round fabrick of stone'[12] it remained until 1656. However, ten years later, in February 1666 the Earl pointed out the dangers of invasion by the French and Dutch, and the necessity of convening the officers of the Island to consider how best to put the Isle into a 'posture of defence'.[13] Between July and January £13 8s. 8d. was spent 'in building the new fort of Douglas',[14] and by 1670 a powder room had been reconstructed in the fort.[15] A further sum of £24 11s. 6d. was expended on work 'at the new fort at Douglas' in 1690 and 1691,[16] but no new fort is listed in the inventories of 1694, 1710[17] and 1713.[18] Denton in 1681 does not mention two forts, and in describing Douglas Fort as 'like a little pinfold or large limekiln'[19] must have had in mind the appearance of many English pinfolds which have a round tower attached as a lock-up. It would thus appear that the new fort built in 1666 was a new gun platform, enclosed by a stone defence-work, on the rocks on the seaward side of the old fort, and that this was enlarged or reconstructed in 1690 and 1691. In 1758 this platform was about 51 feet by about 46 feet with a curved front to the sea.[20] Certainly the platform was old in 1746, but Sir George Moore probably exaggerated to make his case when he claimed in 1759 that the Great Enquest had agreed to his intack in 1746 because the platform was 'in all memory ruinous and seemingly of no manner of use, the walls or abutments thereof in some places being almost level with the ground'.[21]

The construction of this new platform would be necessitated by the change from the old breech-loading sling-pieces to the new muzzle-loading guns with which the fort was equipped by 1670.[22] These, 6 to 9 feet in length, required a long run-out on recoil for reloading, and there would not be enough space in the middle room nor on the platform above to operate several. Thus in an inventory of 1713[23] on 'the platform below' there were two demi-culverins, 9 feet in length and firing a 9 lb. shot, and also one minion, 6½ feet in length and of 5 lb. shot. 'In the platform above' there were one saker, 6–8 feet in length and of 6 lb. shot, one minion and one pounder, a primitive mortar. 'In the middle room' there were two minions. The fort appears to have been so armed in 1694 but the numbers of guns for the middle room and lower platform have not survived in the inventory.[17] In addition to the three gun platforms the inventories of 1694 and 1713 list 'the guard room' and 'the coale house', which were both used for storing equipment. The inventory of 1710[17] while not mentioning 'the platform above' nor 'the platform below', lists 'the middle room', 'the guard room' and 'the powder room', which contained six barrels of lime and two old gun wheels. It would seem that the powder room and the coal house were one, reconstructed in 1670, and that described by Waldron in 1726 as 'a very strong secret apartment underground . . . having no passage to it but by a hole which is covered with a large stone'.[24] Forty years of neglect necessitated repair and rearming on war with France in 1757.[25]

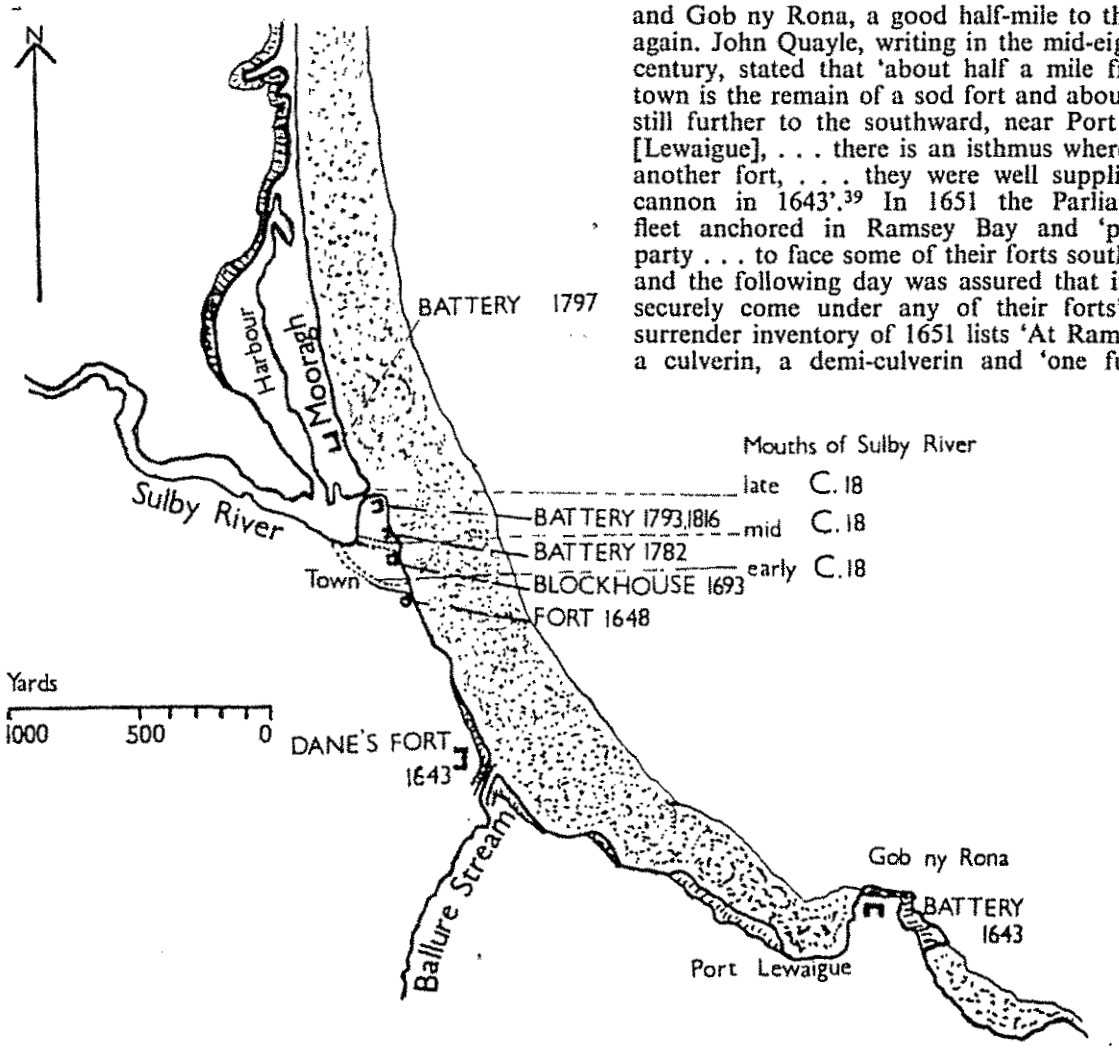
The rebuilding was intended to provide 'a place to mount guns upon and a prison below',[26] but there is no evidence to show what was done. It is possible that the small tower on the roof, shown in Feltham's illustration of 1798, was added at this time to give some protection to the upper flight of stairs. The platform at the foot of the fort was still usable and had another period of service at the end of the eighteenth century.

In the last years of Elizabeth's reign a combined Spanish-Irish invasion of the Island had been feared,[27] and the guns and platforms of the two castles and Douglas Fort were renovated.[28] The policy of her successor presented another danger. James I laid up the Navy and stopped issuing letters of marque to English privateers. As a result, for over thirty years British waters and coasts were subject to pirates and privateers. 'In 1631 they actually captured Baltimore, carrying off 237 of its inhabitants, . . . and 'as late as 1640 . . . roamed the streets of Penzance, abducting women and children at will'.[29] These conditions no doubt led to the establishment of a second gun position in Douglas. In 1627 a house was converted into a platform,[30] and Blundell observed 'another great piece of ordnance, ready mounted, covered from discovery, on the sea shore side betwixt the fort and the town, on the northern end of the road [harbour] . . . so that a ship do rashly sail uptoward the town it comes directly before the mouth of the cannon'.[31] In 1651 'at the fence', the sea wall, there were one saker, two bastard saker and two minions.[32] No further record exists of this gun position which would be unnecessary after the construction in 1666 of the new platform at the fort.

Pirates were no new danger and account for the first attempts to defend the north of the Island with heavy guns. Hanmer Hould, at the Ballaugh river mouth, 'was built by John Hanmer, Captain of Man in 1575, in anticipation of attacks from Galloway and the Hebrides'.[33] No record of its armament at that time has as yet been found, but short range heavy guns in fixed positions could not have prevented a landing on the long, open coastline of the Northern plain. The battery established at Cranstal in 1643[34] was similarly

ineffective, and by 1656 it was 'neglected and ruined',[35] defence of the coast from the Mooragh to Michael in the 'trouble and disturbance abroad' of 1689 being entrusted to the parish militia based at North Shellag Point, Jurby and Hanmer Hould, and 'some field guns carried out of Peel Castle to be planted in some convenient place on the northside for the better defence and security of those ports'.[36] The Ballachurry fort of the Civil War period may well have been built as such a base for a mobile force to defend the northern plain, although Chaloner, in his *Treatise*, suggests that the Earl may have had 'in his eye the awing of the natives'. Three demi-culverin of pre-eighteenth century pattern still remain near Cranstal, two as gateposts at Ballachrink and one at Kerrowdhoo; a fourth was taken from Kerrowdhoo to Derby fort about sixty years ago.[37]

Cranstal battery was one of several built in the North by the Earl in 1643. According to Blundell he was actuated as much by fear of a repetition of the raid by a Scottish pirate of that year as by the dangers of the Civil War. At Ramsey 'he caused a few pieces of ordinance to be mounted and placed in places fitting to oppose a sudden attempt until a fort could be erected'. The building of the fort was started in 1648,[38] but on completion it could not have answered the Earl's purpose without the retention of the other batteries. The town lay south of the river, with just over a mile of beach from the river mouth to Gob ny Rona. One battery of 400 yards effective range could not have prevented a landing. The 'fitting places' for batteries to cover the bay were at the river mouth, at Ballure stream about half a mile to the south, and Gob ny Rona, a good half-mile to the south again. John Quayle, writing in the mid-eighteenth century, stated that 'about half a mile from the town is the remain of a sod fort and about a mile still further to the southward, near Port League [Lewaigue], . . . there is an isthmus whereon was another fort, . . . they were well supplied with cannon in 1643'.[39] In 1651 the Parliamentary fleet anchored in Ramsey Bay and 'placed a party . . . to face some of their forts southwards', and the following day was assured that it 'might securely come under any of their forts'.[40] The surrender inventory of 1651 lists 'At Ramsie Bay' a culverin, a demi-culverin and 'one fulkennet

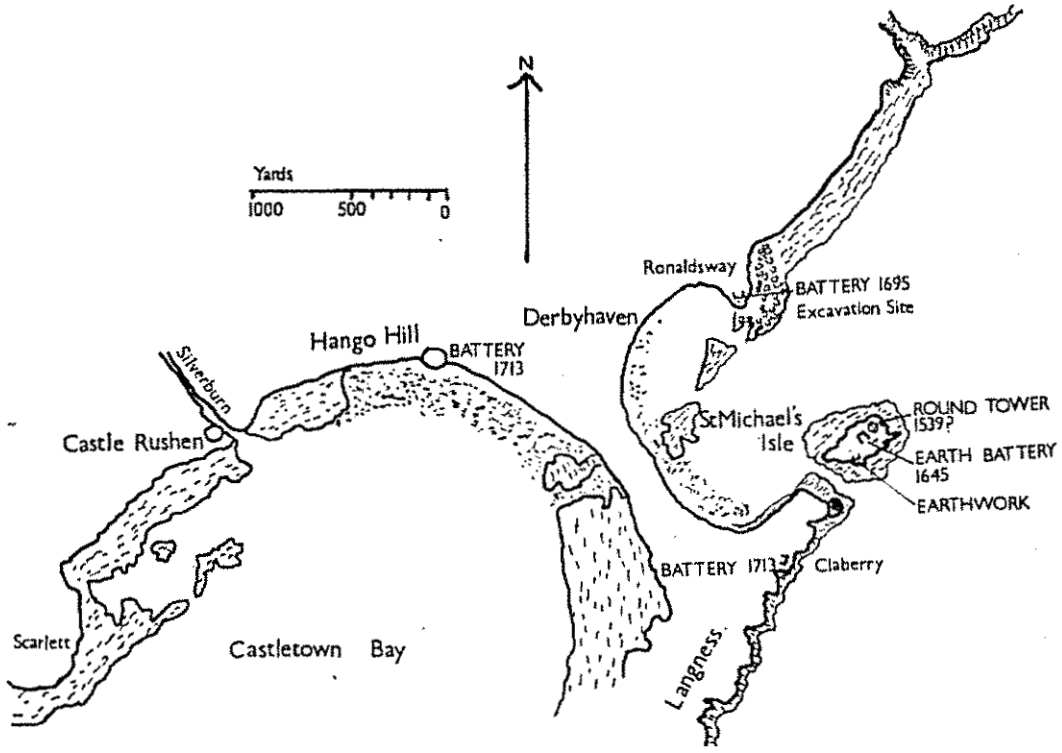


at the low fort'.[41] The lower fort of the two was that at Gob ny Rona (Quayle's Port League). The high fort must have been that described by Oswald in 1860 as 'usually considered Danish . . . on the high brooghs that border at the bay, at the estuary of Ballure Glen . . .entire forty years ago, but disappearing for many years . . . being carried away gradually by the sea',[42] and listed in the inventories of 1694, 1702[43] and 1713 as the Dane's Fort. These inventories list three batteries at Ramsey, the new fort, Port League and the Dane's fort. The Dane's fort had two sakers, and Port League, which was equipped with a new platform in 1693,[44] had one demi-culverin and one saker. Both by the mid-eighteenth century, however, had 'only the vestiges of the ramparts and a few old unserviceable cannon'.[45] There is no evidence that these two were renewed in 1757, but that at Port League was again brought into use in 1782.

The renovation of Port League battery in 1693 and Douglas Fort in 1690–1 was part of a large programme of defensive works undertaken as a result of the French war of 1689–97. In 1690 the French fleet successfully covered the landing of James II in Ireland, but on the defeat of their fleet at La Hogue in 1692 the French resorted to commerce raiding with swarms of privateers and task forces attacking isolated points and convoys. Until La Hogue the Island's rulers had to consider the possibility of a large-scale landing, and after 1692 to be prepared to fight off the privateers whose activities in the Irish Sea were such as to increase the price of coal in the Island.[46] The use by privateers of Ramsey Bay, where one lost his anchor and cable,[47] no doubt required the building of a heavier battery to replace the Ramsey fort of 1648. No record exists of the armament of the 1648 fort, but Denton's description of 1681[48] implies that it was round in form and smaller than the old Douglas fort, and having the appearance of the North tower of Castle Rushen glacis as in Daniel King's illustration of 1656. Its guns were therefore probably small in calibre or possibly chamber-pieces. The new fort was equipped from 1694 to 1713 with three guns,[49] a culverin of 18 lb. shot and two sakers, and was completed in 1693 at a cost of £36 15s. 6d., less a small sum for the platform at Port League. [50] Payments made for work done are recorded as for ' the new platform at Ramsey', [51] but both Sacheverell[52] and Quayle[45] describe the work as a blockhouse. The guns mounted on a stone flag platform would fire through embrasures, thus restricting their field of fire. The ordnance stores were kept in the Customs House and an adjoining storehouse.

The neglect of the eighteenth century reduced the store-house to ruins by 1740 when the gun carriages were also regarded as unserviceable.[53] In the mid-eighteenth century a new channel was cut for the river, and the Ramsey merchants were allowed to build their warehouses near the new cut 'on all the parts adjacent to this fort so that it is now in a manner dismantled and useless as a fortification'.[45] In 1757 the Duke ordered the rebuilding of the fort which, as in Douglas, was also to provide prison accommodation below.[54] Little adaptation must have been needed for in 1727 it contained the twelve members of the Great Enquest of Ayre for four days and nights.[55] In July 1758 the rebuilding of the fort and a new storehouse was to 'be begun in a few days', the old storehouse having been sold for £30 'to lessen the expense',[56] and it was as a combined fort-prison that the building passed to the Crown.[57] Its site, rectangular in plan with a frontage of 53 feet, was bought by a merchant about this time.[58]

The defences of Derbyhaven were considered inadequate in the French wars of 1689–97 and 1702–14 and several batteries were added. The existing works were the sixteenth century round tower on St. Michael's Island and an earthwork battery to the south-west, the whole being named Derby Fort in 1645.[59] That this earthwork was a battery is quite clear in that it conforms closely to a description based on a textbook of fortification of 1645 — 'A small piece of land, normally quadrangular, was enclosed by means of a shallow ditch. The earth from this ditch was not piled immediately within, to form a continuous bank, but was concentrated into a strong breastwork or parapet towards the enemy. This parapet was often returned along part of the two flanks, but did not extend the full length of the ditch.'[60] The parapet on the north-west side facing across Derbyhaven bay and the shallow ditch on the other three sides can still be traced. The decision to build a fort 'for the defence and safety of the harbour of Ronaldsway, being one of the greatest danger in the Land', was taken on the 22nd June 1644,[61] and Blundell confirms that it was an earthwork that was built, '. . . on the south fort as I remember of this haven of Ramsway . . . the Lord James, . . . hath built a little but strong sconce or fort underground.'[62] The decision was justified, for in June 1645 a royalist ship with four guns aboard, which was lying in the ' y and belonged to Capt. John Bartlett of Dublin, a supplier of ordnance to the royalist forces,[63] was attacked and held by Capt. Robert Page of the *Plyodes,* 'until the lord's soldiers of the Island came and assaulted them'.[64] The guns of Derby Fort in 1651 were one demi-culverin, one saker, two demi-saker and one sling-piece.[65] In 1694 the stone fort had three



heavy guns, a fulcon and 'one iron chamber on the walls', while the earthwork had two iron and one brass minion and one brass saker.[66] [Plate 16].

The addition of the new battery in 1645 had not however solved the defensive problem of Derbyhaven. From Derby Fort to the nearest point across the bay is about 800 yards so that a ship on the north-west side of the bay was out of effective range. There being no causeway to St. Michael's Island until the mid-eighteenth century,[67] it would also be possible at high tide for small craft to work their way from the south-east through the channel between the island and the mainland. The fort's guns could not be brought to bear on such an attempt, nor could they from cover return the fire of a ship to the east. There was no parapet on that side of the earthwork battery and by 1694 the two rooms had been built inside the fort,[68] one of which blocks the gun port to the south-east. The possibility also had to be faced of an attempt to turn the whole Derbyhaven position by a landing on the half-mile of beach under Hango Hill.

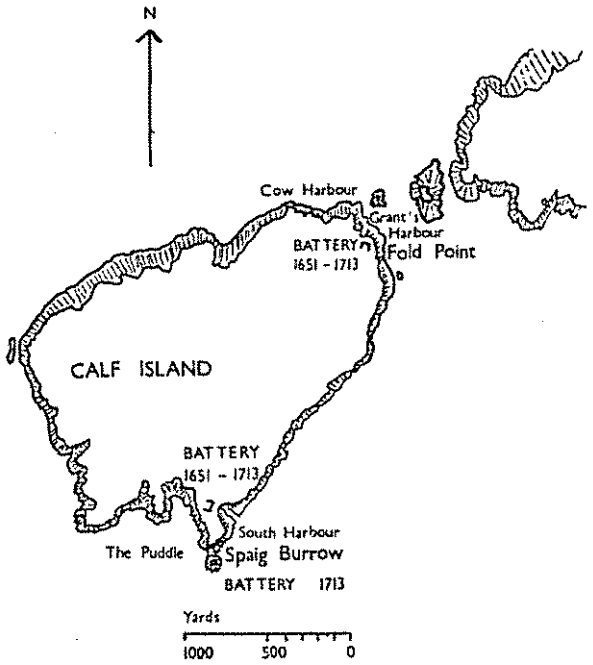
To rectify the first of these defects a 'new fort at Reynoldsway' was built in 1695.[69] According to the inventory of 1702 it was armed with two brass sakers, one brass minion and two iron minions,[70] but by 1713 this had been reduced to one brass minion and one iron minion.[71] Its guns were remounted and the stonework renovated in 1715.[72] An exploratory excavation on the southern tip of the Ronaldsway peninsula revealed a masonry revetment behind an artificial embankment, the northern end of the wall and parapet turned at an obtuse angle as in the 1816 batteries of Douglas Head and Peel Castle. [Plate 16].

The outline of the Claberry battery, listed in the 1713 inventory as having one iron minion, can still be traced on the east of the Langness peninsula and about a half-mile to the south of Derby Fort. Another earthwork can be seen on St. Michael's Island at the eastern entrance to the channel which separates it from Langness. No record exists, however, of the construction of this work, nor of guns having been mounted in it. But a gun mounted there, in conjunction with that at Claberry, could effectively guard the channel and the south-east approach.

The 1713 inventory also records that four small brass drakes (a light gun) were mounted on carriages at Mount Strange (Hango Hill). Inside the rampart which then surrounded the hill they were well sited to cover the half-mile of beach extending almost from Castletown to Langness.

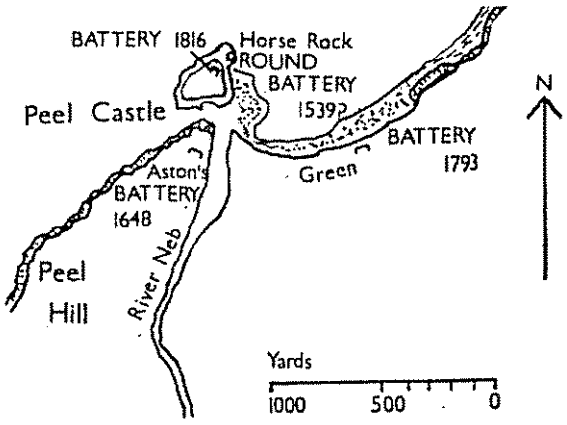
The three batteries of Claberry, Mount Strange and Ronaldsway must have all fallen into decay

in the first half of the eighteenth century, for Quayle does not record them in his account of the Derbyhaven defences. He mentions only Derby Fort which by then had 'several old iron and some small brass cannon and a few on the outside' . . .[73] Derby Fort was restored in 1757,[74] and it is possible but not certain that both Ronaldsway and Mount Strange were rearmed at the end of the eigtheenth century, when Derby Fort was again brought into use.

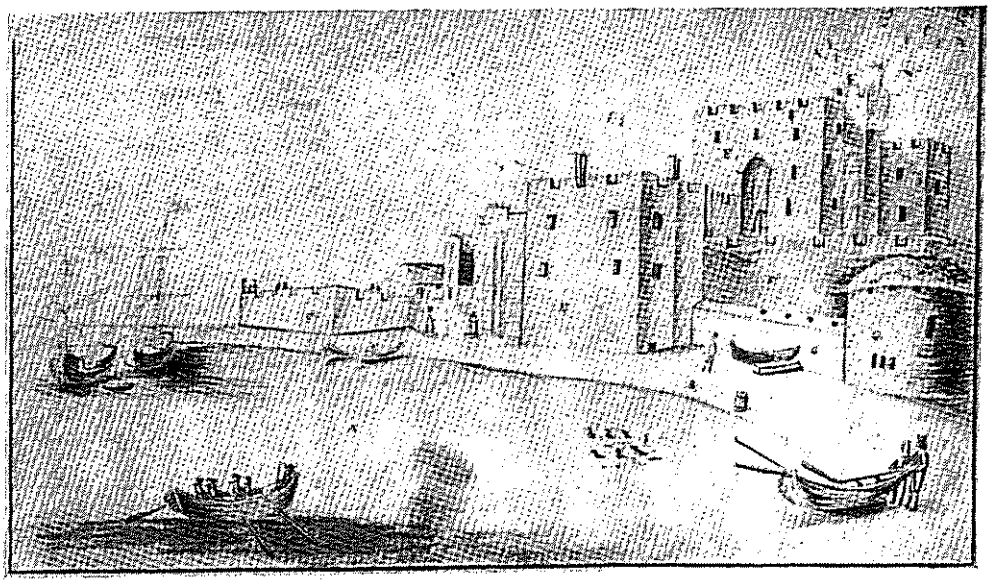


The safety of the Calf was of especial interest to the Earls, and garrisons were maintained there whenever invasion or privateers threatened. In 1651 the expense of the garrison was borne by the clergy,[75] and their influence may account for the purchase of the book of homilies for the garrison of 1666.[76] This garrison was established and the defences strengthened as the result of a specific instruction to the officers of the Island 'not to be unmindful of the Calf'.[77] The Earl's concern must have been based on the defeat of the three Parliamentary ships which attacked the Calf in 1651.[78] What work was done in 1666 and 1667 is not known, but it required the presence of Gunner Tetloe.[79] Further defence work was carried out in 1689 and 1690,[80] and a garrison was maintained on the Calf in 1695 'when the privateers were about the Island'.[81] The Calf in 1694 was armed with three iron and one brass minion:[82] by 1713 the brass minion had been replaced by another iron one, and the total armament increased by one large gun called Dawson's gun, one 'murthering piece or petard, and one old chamber-piece at the Sprague'.[83] With the exception of the chamber-piece the inventories do not record the location of the guns, but they were sited at the landing points. The remains of two batteries can be seen, one constructed of small stones at Fold Point overlooking Grant's Harbour, and the other at South Harbour.

The Sprague, where the chamber-piece was placed, is now unknown by that name, but it must be the Burroo, Spaig Burrow according to Wilson's map of 1771.[84] This map also shows two landing places to the north-east and south-west of the peninsula so that a gun so placed could command both. The top of the Burroo could not afford the space necessary to work a muzzle-loader and so resort was had to the breech-loading chamber-piece. The structure known as Bushell's grave may well have constituted the store and mounting for this gun, the east and west transepts[85] helping to take the impact of recoil, while those of north and south enabled the gunner to lay the gun and reload. Some such gun mounting was in use in the Island in the eighteenth century for Waldron in 1726 found the cannon in Peel Castle 'planted on stone crosses'.[86]



Although Peel Castle was well supplied with cannon they were insufficient to solve the defensive problem of the bay, and it is uncertain whether a satisfactory solution had been found before the eighteenth century. Aston's battery, now a shapeless earthwork on Peel Hill, built in 1648 'to stop any relief which might be brought by boats in case the castle shou'd either rebel or be besieged',[87] was suitably sited to attack the castle but not to prevent a landing, and does not figure in the inventories of 1694 and 1713. It was too high for accuracy against ships and gave no more cover over the bay than the castle's guns. These could



CASTLE RUSHEN, *circa* 1651
from the series of drawings by Daniel King, showing (G, on the right) the surviving sixteenth-century round tower

THE ROUND BATTERY, PEEL
looking north-east from the walls of the castle

THE ROUND FORT, ST. MICHAEL'S ISLE
looking north-west across Derbyhaven

EXCAVATIONS AT RONALDSWAY, 1966
looking south across Derbyhaven

not prevent a landing on the east end of Peel beach which is about 800 yards from the round tower battery on the Horse Rock. It is possible, however, that the problem was solved in the sixteenth century for in 1863 a small piece of fifteenth century or early sixteenth century type of cannon was found 'below low watermark at the East end of Peel Bay, near the Old Battery'.[88] The Old Battery in this case was that built on the water's edge[89] between 1795 and 1797[90] to replace the 1793 battery which had been destroyed by a storm.[91] A sixteenth century battery on or near this site may well have been also so destroyed.

No standard classification exists for early guns so that it is not possible to know exactly what is meant when a gun is described by name. The guns listed below usually had the characteristics given.

	Length	Calibre	Weight of Shot
Falkennet	6′	2″	**1 lb.**
Falken	6′	2½″	**2 lb.**
Minion	6½′	3¼″	**52 lb.**
Saker	6′–8′	3½″	**6 lb.**
Demi-culverin	9′	4″	**9 lb.**
Culverin	9′–11′	5½″	**18 lb.**

Bastard gun: shorter in length than normal, i.e. 26–28 calibres when normal gun was 32 calibres.

Petard: a bell-shaped gun firing a large shot.

Sling-piece: a small breech-loading gun firing a 2 lb.–14 lb. shot, and so mounted that it could be quickly elevated and traversed.

Drake: usually a small field gun, but known in fixed positions to have had saker bore.

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