



## Ordnance Survey markers around Coleraine

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## ORDNANCE SURVEY MARKERS AROUND COLERAINE

*Peter Wilson*

Fixed to the wall on the north side of Coleraine Town Hall, but hidden from public view by an electrical circuits cabinet, is an Ordnance Survey (OS) flush bracket. It may seem strange that the bracket has been concealed in this way for it can no longer be used for the purpose for which it was designed.

OS flush brackets were fixed to some public buildings such as churches and, in the case above, a town hall. In addition, triangulation pillars that adorn hill tops, like Knocklayd above Ballycastle and Binevenagh overlooking Magilligan and the Roe estuary, also carry flush brackets. They were fixed into position by staff of the OS. The initial tranche of flush brackets appeared in the mid-1930s. Later, flush brackets were used in greater numbers for the re-triangulation of Northern Ireland during the 1950s, and this is when triangulation pillars also began to appear; they form part of a network of precisely surveyed points. Each brass bracket usually carries the letters OSNI and BM (bench mark) and a serial number, but the arrangement and layout of letters is not entirely consistent, slight variations exist. The Town Hall flush bracket is number 3422 but lacks the letters NI (I have seen a photograph of the bracket that was taken before the electrical circuits cabinet was put in place). In addition, flush brackets have a horizontal slot below which is an arrow pointing upwards. The slot represents the bench mark – the precisely surveyed point – and the Town Hall bench mark is 9.04 metres above mean sea level (m amsl).

Flush brackets previously existed on Coleraine railway station (number 3430) and the recently demolished Technical College on Union Street (number 3429). The former disappeared some years ago. I am not sure whether the latter was present when the building was demolished in 2021 and, if so, if it was removed for safe keeping prior to demolition. Another flush bracket that I have been unable to locate is listed as being attached to the Old Court House.

However, flush brackets do exist on the walls of Ballyrashane Church (number 3432), on Ballyclabber Church (number 3433), on Killowen Parish Church (number 3380) and on Killowen Primary School (number 3381). These also lack the letters NI. Therefore, it seems that brackets with serial numbers in the 3300s and 3400s were not embossed with NI, for reasons that are currently unknown.

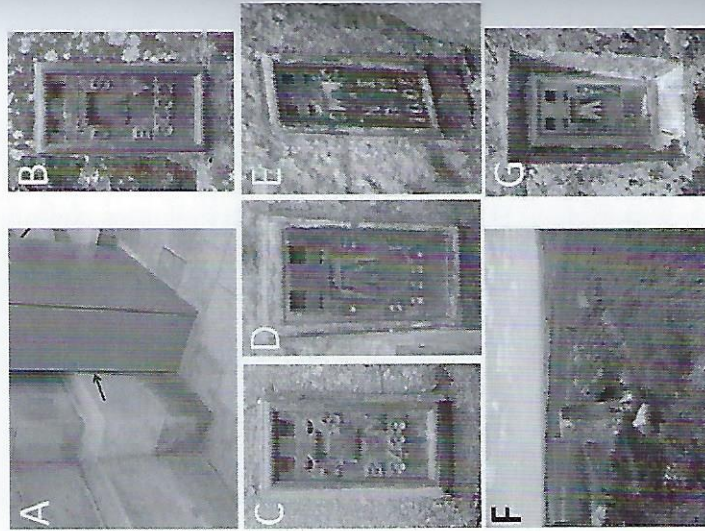
Another flush bracket is fixed to the wall of Agherton Parish Church in Portstewart (number 1008, 14 m amsl) and yet another is on the Scudion Craig triangulation pillar, Portrush (number 3051, 132.04 m amsl). Both carry the letters NI. The Agherton Church flush bracket is one of the early ones put

in place by OSNI in the 1930s. These were numbered 1001-1025, and 21 were located in the Belfast area and four in County Londonderry. Of these four, the Agherton bracket is the only one that survives; the others were placed in the Toome area but can no longer be found.

The name 'flush bracket' was given because in many cases the bracket was fixed in a slight recess so that it was 'flush' with the surface. In most of the examples referred to above, the brackets were fixed directly onto the walls and the Scudion Craig bracket is set in a large recess, so that none are truly 'flush' with the receiving surface.

### Survey Origins

The OS was established in London in 1791 with the remit to produce maps for military use. It was deemed imperative that the British army had accurate maps of southern England in case Napoleon and his forces should attempt to invade. Maps existed before this time, of course, but were not based on exact surveying. In Ireland, detailed maps also became a necessity because it was realized that local (townland) taxes were inequitable, and acreages and rateable valuations needed substantial revision. A survey of Ireland was approved by the British parliament in 1824 and Lt.-Col. Thomas Colby was tasked with getting the job done.



- A. Arrow points to the concealed flush bracket on wall of Coleraine Town Hall.
- B. Flush bracket on Ballyrashane Church.
- C. Flush bracket on Ballyclabber Church.
- D. Killowen Parish Church flush bracket.
- E. Agherton Parish Church flush bracket.
- F. The Scudion Craig triangulation pillar, Portrush, showing towards base the recess with flush bracket.
- G. Flush bracket on the Scudion Craig triangulation pillar.

The work of Colby and his team has been told many times. Their measurement of a base line across the plain of Magilligan, adjacent to Lough Foyle, became the foundation for the triangulation of the entire country. Although the survey and large-scale maps of Ireland were completed by 1846 it did not signal the end of the OS. No sooner had the mapping been completed than the process of revision to take account of changes in both urban and rural areas began. And that process continues today.

Following the division of Ireland in 1921 separate OS organizations emerged. The original body was now confined to Great Britain with HQ in Southampton. The OS of Northern Ireland (OSNI) was established on 1<sup>st</sup> January 1922 with HQ in Belfast, and in the Irish Free State the OS came into being on 1<sup>st</sup> April 1922 with HQ in Dublin. Irrespective of the breakup, each body continued to "provide and maintain a network of mapping of the highest possible quality on a national basis".

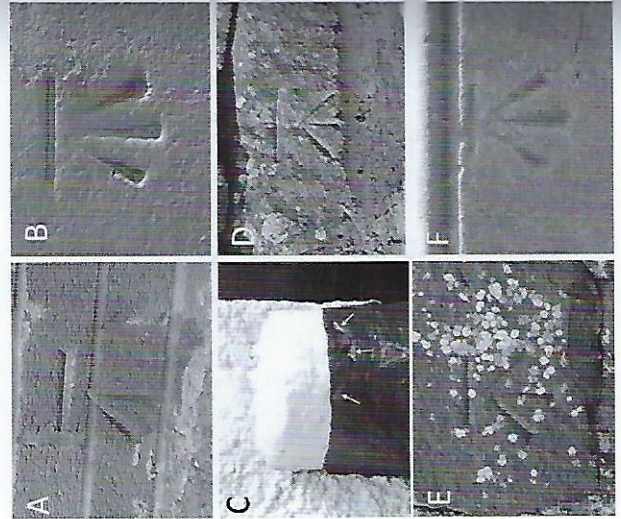
### Cut bench marks

When Colby began to organize the first survey of Ireland he issued guidance to his teams of surveyors in the form of an instruction manual. At various places in the list of 74 instructions he refers to "levelling marks" or fixed points to which surveyors could return if any re-measurement was necessary. Rather strangely, perhaps, he stated that levelling marks on buildings required no particular markings because they could be re-located by measurement. Later, very distinctive permanent levelling marks were created on buildings, and in order to keep pace with urban renewal and expansion new levelling marks were made as earlier ones disappeared. These levelling marks go by the names of 'cut marks', 'bench marks' (or even 'cut bench marks') and 'crow's feet' and OSNI continued to have them inscribed until at least 1991.

Bench marks were usually cut on vertical stone surfaces such as walls, bridges, churches and other public and non-public buildings. They were chiselled into the stone approximately 50 cm above the ground surface and consist of a horizontal incised line below which a broad incised arrow points upwards. The horizontal line defines the height of the location. The term 'bench mark' derives from a device called an angle-iron that can be fitted into the horizontal cut giving a 'bench' or support for a levelling staff. By this means a levelling staff can be accurately repositioned in subsequent survey work. Over the years bench marks became important heightened points for engineers and planners. Some bench marks were cut into horizontal surfaces and simply consist of the arrow. In these cases there was no need for an angle-iron, the levelling staff was positioned directly alongside the arrow. Other bench marks may consist of a domed metal bolt fixed in position and may or may not have an adjacent inscribed arrow.

The location and height of each bench mark is indicated on large-scale maps (1:10,560 and 1:10,000) and by examining such maps published at intervals since the mid-19<sup>th</sup> century it is possible to identify locations where bench marks exist, or previously existed. Also, a web site ([www.benchmarks.org.uk](http://www.benchmarks.org.uk)) allows you to search for bench mark locations within any distance of any postcode. This will provide details of both the flush bracket and cut bench mark types. However, it is not a complete record. Using my own Portstewart postcode and a distance of 20 km the web site produced a list of 51 bench marks (in November 2021). However, as mentioned above, I have been unable to locate quite a number of both types, probably because they no longer exist. In contrast I have found several others within the 20 km radius that do not appear in the list. By registering as a user of the web site it becomes possible to upload details of bench marks that you have found that are not currently listed. I have recently added 16 bench marks to the site, so that my postcode and 20 km radius now yields a list of 67.

Establishing the age of cut bench marks is not easy. An extant bench mark indicated on an OS map obviously pre-dates the date of the map but by how much it is older is difficult to know, although the map itself may provide that detail. Conversely, a bench mark also has to post-date the age of the structure onto which it was inscribed, but again by how much it is



- A. Bench mark on brickwork, Portrush Primary School.
- B. Bench mark on pillar at former entrance to Coleraine railway station.
- C. The Guinness Stone bench mark, Harbour Bar, Portrush. White arrows point to indentations of inscribed arrow.
- D. The Burnside Road bench mark, Portstewart.
- E. Bench mark on farm building wall, Pottagh House, Ballywoolen Road, Articlave.
- F. Bench mark on wall pillar at entrance to Dundarave Estate, Whitepark Road, Bushmills.

younger is not always known. A very clear bench mark exists on the bricks that form a pillar at an angle of the fenced boundary of Portrush Primary School on Crocknack Road. The school was opened in 1959 but the bench mark could date from any time between then and 1991. Again, the map may provide an indication of its age. Another bench mark can be seen at the base of a pillar at the former entrance of Coleraine Railway Station. The bench mark cannot be older than the pillar; it could be considerably younger.

Some bench marks are unusual in terms of where they were cut – that at the Harbour Bar in Portrush being a case in point. Beside the entrance to the Bar is a small, squat stone pillar painted black and white to represent a pint of Guinness. Over the years quite a few coats of paint have been applied and the bench mark is now difficult to make out. However, the lines of the inscribed arrow are just visible. There does not seem to be an inscribed horizontal cut; the top surface of the pillar replaced the need for that.

Over the years many bench marks have been lost as a consequence of re-development and for the last 30 years or so no new ones have been cut. Slowly but surely the population of bench marks is dwindling. They have no legal status, unless the structures on which they were cut happen to be listed buildings or have other forms of protection. Even then the necessary replacement of deteriorating stonework may see a bench mark removed without knowledge of its presence or significance. I believe this may have been the fate of the bench mark that is supposed to exist at the base of the tower of Holy Trinity Church, Portrush.

However, there are also stories of bench marks that have been saved when they could have been easily lost. In August 2021 the golf course boundary wall along Burnside Road, Portstewart, was undergoing demolition prior to replacement by a new wall. I knew that a stone in the wall carried a cut bench mark so I asked the contractors and golf course manager if that stone could be retained in its original position and incorporated into the new wall. They duly obliged and the bench mark remains where it has been since it was cut – a nice gesture by Portstewart Golf Club, to whom I extend my thanks.

Bench marks and some triangulation pillars are no longer maintained by OSNI. Surveying and map making have gone digital and computers can do in seconds what previously took several man/woman-days to achieve. As we approach the bicentenary of the foundation of the OS in Ireland (1824-2024) it would be appropriate to mark this in some way, and giving protected status to flush brackets and cut bench marks seems entirely appropriate.