Centre for Archaeological Fieldwork

School of Geography, Archaeology and Palaeoecology, QUB



Data Structure Report: No. 069

Excavation of a post-medieval fort in Ballycarry south-west, County Antrim

AE/10/30

12 October 2011

On behalf of





Ballycarry south-west, County Antrim

Excavations carried out on behalf of Northern Ireland Environment Agency: Built Heritage

by

The Centre for Archaeological Fieldwork, School of Geography, Archaeology and Palaeoecology, Queen's University, Belfast.

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CAF DSR 069

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1 Summary

Excavations were carried out at the site of a probable sixteenth- or seventeenth-century artillery fort in the townland of Ballycarry south-west, County Antrim by the CAF during December 2009 and January 2010. The fort is located within the western half of a scheduled enclosure (ANT 047:068) of uncertain date. Up until 2008, when the fort site was first detected through a geophysical survey, the monument was otherwise unknown and undocumented. The layout of the fort as determined by the survey is a square-plan enclosure, approximately 33m-37m across, with two diagonally opposing spear-shaped corner bastions, measuring around 60m-61m from salient point to point. The results of the geophysical surveys (magnetometry and soil resistivity) did not determine whether the fort outline was represented by a positive or negative feature. The two test trenches (Trench 4, 4m x 1.5m; Trench 6, 2.5m x 3m) opened along the northern side of the fort by the CAF in 2009 established that it was represented by a rock-cut ditch approximately 1.2m-1.4m in depth and 2.7m wide. No traces of an internal bank/rampart, wall, palisade or other associated structural remains were found and no independent dating evidence was recovered from the fills of the ditch. Four other test trenches were opened but these did not uncover any features or finds of archaeological significance.

The plan of the fort, its regular layout and corner bastions, date it to the sixteenth- or seventeenth century. Unfortunately, the range of finds recovered during the excavation does not help to narrow this date range although the general scarcity of finds does suggest short-term use. The absence of mortar and the recovery of just a handful of small brick fragments from the topsoil would also suggest that upstanding defences accompanying the ditch were probably of earth and sods. The layout of the fort is one that matches that of both fortified bawns and artillery forts of this period in Ireland and there are a number of possibilities as to who, and when, such a fort may have been built.

The first possibility is that it was built towards the latter end of the sixteenth century or early years of seventeenth century as a campaign fort as part of the Nine Years War. Its location in proximity to Carrickfergus would have made it logistically important to those either defending or attacking the town. The second possibility is that it was built as a bawn by the Edmonstones soon after they were granted the lands of the parish of Templecorran/Broadisland in 1609. William Edmonstone moved into Redhall but there is documentary evidence to suggest that his brother James also lived in the vicinity and the bawn may therefore have been his. A third possibility is that it dates to the closing decades of the seventeenth century and was constructed as an artillery fort during the Williamite Wars. Contemporary documentation shows that Archibald Edmonstone of Redhall took an active part in the Protestant resistance to King James including a prominent role in two sieges on Carrickfergus in 1688 and 1689. This period of military activity in the area may have been a stimulus for the

construction of a fort such as that at Ballycarry which, if hastily built and of short term use, is not likely to have been documented.

2 Introduction and background

2.1 General

This data structure report (DSR) details the results of an archaeological excavation undertaken by the Centre for Archaeological Fieldwork (CAF) at the site of a probable sixteenth- or seventeenth-century artillery fort or fortified bawn (hereafter 'fort') in the townland of Ballycarry south-west, County Antrim (NGR J44809351; Figures 1 and 2; Plate 1). The fort is located within a scheduled enclosure of uncertain date (ANT 047:068), and was first identified through a geophysical survey undertaken by Dearne Valley Archaeological Services Ltd in 2008 (DVAS 2008). The survey, covering approximately 9.2 acres, was commissioned by the landowner in advance of an application for planning permission.

The evaluative excavation of the fort was carried out over four weeks during December 2009 (4th - 18th) and January 2010 (5th-14th). The fieldwork was undertaken by the CAF on behalf of the Northern Ireland Environment Agency: Built Heritage (NIEA) and was directed by Emily Murray under a license held jointly with Paul Logue of NIEA (Licence No. AE/10/30). Scheduled Monument Consent was applied for and granted before excavations began. Permission to excavate was given by the landowner Mr Tom Topping through his land agent Mr Crawford Leitch of English & Drummond, 5 Point Street, Larne, County Antrim, BT40 1HY.

2.2 Historic background

2.2.1 The parish of Templecorran/Broadisland: its townlands and landowners

The newly discovered fort is located in the townland of Ballycarry south-west at the southern edge of the village of Ballycarry both of which are located in the parish of Templecorran. The Ordnance Survey (OS) Memoirs of the 1830s note that the parish (in the diocese of Down and Connor and barony of Belfast Lower), is more commonly known as Broadisland, sometimes spelt as 'Braidisland' or 'Braidenisland' (Day *et al.* 1994, 82). This is also the term used in seventeenth-century documentation. Other variations in spelling such as 'Brayde-Island' and 'Braden-island' are also used (Hill 1869, 57).

The parish of Templecorran formerly constituted part of the lands of Shane McBryan O'Neill (Seán Mac Briain Ó Néill) of Lower Clandeboye (Day *et al.* 1994, 96). In 1573 John Dalway, a coronet in

the army of Walter Devereux, the Earl of Essex, landed at Carrickfergus and in 1581 he married the grand-daughter of Hugh O'Neill, the Earl of Tyrone (Sinéad or Jane Ó Néill) and related, by the mother, to Shane McBryan (*ibid.*; O'Laverty 1884, 88; McSkimin 1909, 474). In consequence of the marriage Dalway received a grant of the 'tough of Braid Island', and other lands at Kilroot from McBryan O'Neill in February 1592 (O'Laverty 1884, 88-9; McSkimin 1909, 474), including the old Ó Néill tower house in Redhall (Ó Direáin and McHugh 2010, 129).

During the Nine Years War (1594-1603) Shane McBryan O'Neill supported Hugh O'Neill, against the Crown. After the Irish were defeated, and Shane McBryan O'Neill's death, his lands were forfeited to the Crown (Day *et al.* 1994, 96; O'Laverty 1884, 89). In 1603 Dalway surrendered the lands he had already received from O'Neill on condition of obtaining a regrant of the same (Russell and Prendergast 1974, 79). These were dully re-granted to him from James I in April 1606 (Day *et al.* 1994, 96; O'Laverty 1884, 89; McSkimin 1909, 474) and the townlands in Broadisland granted to Dalway are listed as: Ballihill, the mountains of Arlonewater, Ballymullagh, Killroe, Whitehead, Balleslannan, Ballibantragh, Ballimullaghmoyle, Ballyharrington-Savage, Ballyalfrackanman, Ballyislandogre and Clubforde (Griffith 1966, 125. See Table 1 and Figure 5). In 1608 Dalway extended his landholdings and purchased the 'Cynament of Ballynure' (McSkimin 1909, 474; Griffith 1966, 125; Hill 1869, 57).

Not long after acquiring these lands John Dalway re-granted most of the lands of Broadisland to William Edmonstone of Duntreath, Stirlingshire in Scotland. The *Calendar of Patent Rolls of James I* (Griffith 1966, 278) records this grant in a deed dated 26th May 1609:

"John Dalway of Brayde-Island esq. granted to William Edmundstone of Duntrath in Scotland, esq. and his heirs for ever — Antrim Co. The towns, lands, fishings and hereditaments of Leslanan, Whiteheade, Holmandstown, Spearspointstowne, Ilamdogree, Allfrackyn, Readhall, Harrington-Savage, Molaghmoyle, and Ballinvantroe [see Table 1] all lying within the towagh or barony of Brayde-Island; and also all other the lands which he had or of right ought to have within the following limits, 2870a at the rate of 160 perches to an acre and 21½ feet to every perch viz., from the ford called Cloobford, on the SW part by a bog or marshy ground to a ford or water called Baltyde-Ford near the town or village of Beltyde; thence to a lough called Loughduffe; thence to Raven's-Rock; thence by Cloghbally-Edward to Lissinusky, according to the mears between Brayde-Island and Magherimorne to Loghlarne, and by the said lough to a place called Fort-Alexander; thence further to a little stream diving Island-Maghie and Brayde-Island to castle-Chichester lately built, and so by the south part of the said castle to the sea, and so on by the sea-coast to Cloghocrye otherwise the Partitions-Trench,

which are the bounds between the lands of Spearspointsowne and the lands of Killroute and Ballymacmurtagh to Island O'Dreyne, and so forward upon the S.W. side of a small river to a trench or ditch to be made and cast up by the lands of John Dobbe and Ballyhill, directly to a place whereat a stream coming from the bog near Clubbford fell into the said river running near Castle-Dobbe and so forward by that stream to the said bog near Clubbford aforesaid - the advowson and right of patronage of the rectory and vicarage of Templecurran in Brayde-Island; with free-warren, hawking, hunting, fishing, and fowling within the premises; reserving to said Dalway and his heirs all the tithes and tenths of the premises, wrecks of the sea, courts leets and baron and all the lands then in the possession or occupation of the said John Dobbe, within Brayde Island, and all other lands &c. which the said Dalway had or ought to have within the said towagh or barony, which were not herein mentioned to be contained within the mears and bounds before expressed - also, common of turbary, and free common of pasture without number, for all manner of cattle commonable, which the said Edmunstone, his heirs and their tenants should keep, to be going and depasturing together with the cattle of said Dalway and Dobbe in Brayde-Island, in by, and through all that great waste, heath, or common of Brayde-island, lying towards the W. and N.W. of Loughmorne and Beltyde, and all other the lands in Brayde-Island; except the lands of John Dobbe, and 400a which the said Dalway intended to lay to his manor house of Dalway, and all such lands as he had formerly grant to Sir Arthur Chichester, knt, lord deputy of Ireland - To hold to the said Edmonstone and his heirs by fealty, suit of the said Manor-court, and a rent of 160l 9s 4d sterling, at the parish church of St Nicholas of Carrickfergus, with a herriot upon the death of every freeholder or principal tenant, viz. the best beast or 31 Eng. In lieu thereof, at the election of the heir of each freeholder, and to attend said Dalway with 5 horsemen when necessary".

This is also quoted, in full, in the Montgomery Manuscripts (Hill 1869, 57-8). In the OS Memoirs the date of the deed is recorded as May 28th rather than 26th (Day *et al.* 1994, 96).

2.2.2 The Edmonstones in Ulster and at Redhall

The Edmonstones of Duntreath, Stirlingshire first moved to Ulster in 1607. In that year, William, the 7th Laird of Duntreath and his younger brother James, obtained a grant of land on the Ards peninsula, County Down, from Sir Hugh Montgomery (Hill 1869, 57). The lands conveyed were at Ballybreen (or Ballybrian) and part of Ballymonestragh both in the Parish of Greyabbey (*ibid.*). The money William invested in Ulster was raised through the mortgage of the Duntreath estate (*ibid.*) and it seems probable that he undertook this step to remove himself from Scotland following his father's involvement in the conspiracy against James VI in the 1580s (*ibid.*).

In May 1609, John Dalway granted William Edmonstone the lands of "Brayde-Island" in County Antrim (see Section 2.2.1). The Edmonstones therefore spent little time in County Down, having acquired lands in Antrim just two years after they arrived in Ulster.

The Edmonstones' house in Templecorran was at Redhall. The earliest reference to the townland of 'Readhall' is in the 1609 grant from Dalway to Edmonstone with 'Irue' or 'Irewe' possibly being the former name of the townland (Reeves 1847, 57; see also Section 2.2.3 below). The name 'Redhall' suggests the possible existence of a house or 'hall' of some form in the townland in the seventeenth century though this is not specifically mentioned in the lease. The wooded demesne of Redhall adjoins the northern end of the village of Ballycarry and the house, although much altered over the years, still stands (Brett 1996, 76-7). Surviving early structural remains, including thick walls and the presence of a base-batter, suggest that a tower house (ANT 047:004) lies at the heart of it (*ibid.*) and this could be the 'hall' of Redhall. Ó Direáin and McHugh (2010, 129) also state that 'the Ó Néill tower house' in Redhall was included as part of the grant from MacBryan O'Neill to Dalway and presumably then from Dalway to Edmonstone. The primary remodelling of Redhall has been dated to 1609-1649 when it was the residence of William Edmonstone, with further alterations dated to *circa* 1730 (NIEA's Historic Buildings Record: HB06/05/013).

William Edmonstone (the 7th Laird) died in 1626 and his great-great-grandson sold Redhall in 1784. The Edmonstone family then returned to Duntreath. The Redhall estate was purchased in 1784 by the Ker family of Portavo and Montalto County Down (Brett 1996, 77). Redhall was sold by the Kers in 1869 and it went through a number of hands until it was bought by Vice-Admiral McClintock in 1927 whose family still retain possession of the house and estate (Brett 1996, 77).

2.2.3 Templecorran church and the Reverend Brice

The date and origin of the old cruciform-plan church of Templecorran is not known. According to *The Ulster Visitation Book* of 1622 the church (*Temple-i-corran*) had 'the walles newly erected, but not roofed as yet' (O'Laverty 1884, 90). In 1657 it is recorded as being in repair but as being *ruinosa* by 1679 when it appears to have gone out of use (Roulston 2003, 123). The Ballycarry Presbyterian meeting house was erected soon after in 1710 and services then ceased in the old church of Templecorran (Day *et al.* 1994, 112; Ó Direáin and McHugh 2010, 133). The report on the old church in the OS Memoirs noted variations in the masonry indicating later alterations and rebuilding to the original church (Day *et al.* 1994, 110). The church also has two musket loops, one in each corner of the west gable (Roulston 2003, 124). Firearms are first recorded in Ireland in the late fifteenth century with muskets not invented until the mid-sixteenth century (J. O'Neill pers. comm.) so these building details must be post-medieval in date and may date to the 1622 rebuilding of the church.

The Reverend Edward Brice, or Bryce, moved to Antrim in 1613 and was one of many Scots who, from 1610, began migrating to the north-east of Ireland. These included many Nonconforming clergy who were being persecuted in their homeland (Day *et al.* 1994, 86) though Brice had further cause to move, having been accused of adultery (Ó Direáin and McHugh 2010, 133). Brice had formerly been a minister at Drymen north of the Blane Valley and the estate of the Edmonstones of Duntreath in Western Scotland. In 1613 he became the first Presbyterian minister in Ireland and he was in charge of, and preached at, the old church of Templecorran from 1613 until his death in 1636 (Day *et al.* 1994, 85; Ó Direáin and McHugh 2010, 132). He is interred within the church.

2.2.4 Townland names and boundaries; Leslanan and Forthill

The parish of Templecorran/Broadisland is made up of eleven townlands (Aldfreck, Redhall, Forthill, Bentra, Whitehead, Knocknagulliagh, Carnbrock, Ballycarry south west, Blackhill, Ballycarry northwest and Lockstown). These do not match the eleven townland names as listed 'in old deeds' (see Table 1) according to the OS Memoirs (Day *et al.* 1994, 82) and of these, just four are considered similar to current names. These are not identified in the Memoirs but are presumably Ballybantra, Allfrackyn, White Head and Redhall. The 'old deeds' referred to are not cited and only some of the old names listed tally with those given in the 1608 and 1609 deeds (see Section 2.2.1 above) so it is not clear what documents or sources are being referred to. The Memoirs do not include a complete list of the then current names of the townlands nor do they attempt to pair-up the old and new names.

An attempt is made here, in Table 1, to try and trace the variations in the townland names of the parish as recorded over the centuries and for some of these there is at least some form of a paper-trail. In the rolls of Pope Nicholas IV's taxation of circa 1306-7 three churches are listed in the Diocese of Connor and parish of Templecorran and these are the Churches of Irue (with the chapel of Brokenbury), Loghlat and Laslaynan (Reeves 1847, 56-8). The name Irue or Irewe no longer exists having being replaced by Redhall with the stable-yard of Redhall house, according to Reeves (ibid. 57), being the site of the former church and cemetery. The name of Brokenbury or Brakenberghe also no longer survives but the site of the church has been identified just west of the village of Ballycarry (Figure 1) where human remains and building foundations were reportedly discovered (ibid.) in the townland of Ballycarry south-west (ANT 047009; J44649396). Similar remains were also discovered and cleared-out at the site of the church of Loghlat or Lagnalitter (Reeves 1847, 56-8) which is located east of the village in the townland of Redhall (Figure 1. ANT 047008; J45419432). The last of the churches, Laslaynan has been identified as the church of Templecorran in the modern townland of Forthill (ibid. 58). Laslaynan is therefore the former name for the townland of Forthill, and Laslaynan or Lisanan is preserved in two fourteenth century references, dating to 1333 and 1380 (Reeves 1847, 58). It has been suggested that the name Lislaynan probably derives from the Irish *lios* meaning a

farm enclosure with the suffix being a family name (Ó Direáin and McHugh 2010, 128). The 'corr' of Templecorran may derive from several different things but one meaning is 'curved' or 'round' (*ibid*.). Both names, Lislaynan and Templecorran, could tentatively include reference to the curvilinear enclosure in which the church is located though the links are tenuous and can probably be dismissed.

The townland name of Leslanan (or variations thereof) is in use at least until the early seventeenth-century as indicated by the grants to Dalway and Edmonstone (see Table 1). The name is also recorded in the *Inquisitiones Ultoni* in 1627 (Car. I, #3) and 1639 (Car. I, #131; Hardiman 1829) providing a *terminus post quem* for the name 'Forthill'. The origin of the name of Forthill is not known but it could derive from the hill of the same name approximately 2km south of Ballycarry village on which are located possible earthworks (ANT 047:038; J45299295. Figure 2). Alternatively, it could refer to the newly discovered fort and the focus of this excavation and report. The fort is, however, located in the townland of Ballycarry south-west and not Forthill although it is only just inside the townland boundary – it is located less than two metres west of the Bentra road which marks the townland boundary (see Figures 3 and 4).

In the OS Memoirs on Templecorran, the following comment is made about townland boundaries and roads: 'Except in one or two instances, all trace of the ancient division is entirely lost and in cases where the original boundaries were known, no attention has been paid to them in the present divisions of the parish, as in almost every instance roads, all of which are of a modern date, are given as being the boundaries of the townland' (Day *et al.* 1994, 82). The roads 'of a modern' date' are not listed. The Bentra road that cuts through the scheduled enclosure just west of Templecorran church was in existence at the start of the nineteenth-century as it is marked on the earliest OS maps. The Bridgend Road (B90) is currently the main road from Ballycarry to Carrickfergus and it, but not the Bentra road, is shown on Skinner and Taylor's map of 1777 of the 'Road from Dublin to Carrickfergus and Glenarm' (Taylor and Skinner 1783, Map 13). The absence of this latter road, and other minor roads in the area on this late eighteenth-century map, cannot be taken as a true absence as it is probably only the major roads that were depicted. George Rutherford (unpub.) has also cited in full M. Mallet's comments on the townlands of Templecorran when he was compiling the name-book for the parish and this would appear to explain why the majority of boundaries follow roads and may be of recent origin:

"It is hardly possible to give any names as the received names of the tds. Until the boundary surveyor visited the parish it was always said that there were no townlands within the parish, the property belonging to one individual, D. Kerr [sic] Esq., Red Hall House. It paid cess as a whole without any regard to the minor divisions. In consequence no attention was paid to the mearings, and with but one or two exceptions, the knowledge of the ancient bounds was

quite lost. The boundary surveyor has divided the parish into eleven townlands, as he informed me, without any reference to what were the former bounds, but has endeavoured to divide the parish in equal portions."

Rutherford (unpub.) has also suggested that if the order of the townlands listed in the seventeenth-century deeds is significant and it can be taken that they were cited sequentially as they are on the ground, then Harrington-Savage/Ballyharrington-Savage can be accepted as the former name of Redhall. The name first appears in the 1609 lease from Dalway to Edmonstone so perhaps, as Rutherford proposes (*ibid.*), Edmonstone wanted to call his new seat Redhall and asked Dalway to include it in the lease.

Ballycarry is the Anglicisation of Baile Cora which means 'townland of the causeway or ford' (McKay 1999, 11). This refers to the ford across the shallow waters at the head of Larne Lough to the east of the village, between Ballycarry and Island Magee, and which is now forded by a bridge. MacKay (*ibid.*) notes that the earliest documentary record for the name of Ballycarry is 1669. This placename evidence for the village coupled with that for the townlands of Lislannan/Forthill and Redhall might suggest that there was a change in townland names in the region, and perhaps also a realignment of at least some of the boundaries, sometime in the first half of the seventeenth century. If the OS Memoirs are correct, the names and boundaries may have remained fairly fluid for at least another century or more only becoming fixed in the late eighteenth or early nineteenth century.

1306-07 (1)	1333 (1)	1380 (1)	1603 (5)	1608 (2)	1609 (2)	1621 (2)	1627 (3)	1639 (3)	'old deeds' (4)	1830 (4)	Current
-	-	-	Orland Water, mountains of	Arlonewater, mountains of	-	-	-	-	-	-	-
Laslaynan	Lyslynan	Lysleynan	Slanan	Balleslannan	Leslanan	-	Lislanan	Lesslanan	Leslanow	Forthill	Forthill
-	-	-	Ballibantro	Ballibantragh	Ballinvantroe	Ballybentra	Ballenebantry	Ballybantrogh	Ballybantra	-	Bentra
-	-	-	Ballinhill	Ballihill	-	-	-	-	-	-	-
-	-	-	Mullaghmoelli / Mullaghkillroe	Ballimullaghm oyle	Molaghmoyle	-	Mollaghmoile	Mulloghmocle	Mollockmoyle	-	-
-	-	-	Alfrackine	Ballyalfrackan man	Allfrackyn	-	Allsrackan	Alfrackyn	Allfrackyn	Aldfreck	Aldfreck
-	-	-	Harrington- Savage	Ballyharringto n-Savage	Harrington- Savage	-	Harrington	-	Harringstown	-	-
-	-	-	Island Ogree	Ballyislandogr e	Islandogree	-	Ilandogree	Ilandagree	Islandagee	-	-
-	-	-	Whitehead	Whitehead	Whiteheade	-	Whytehead	Whitehead	White Head	-	White Head
Irue or Irewe	-	-	-	-	Readhall	-	Readhall	Redhall	Redhall	Redhall	Redhall
-	-	-	-	Ballymullagh	-	-	-	-	-	-	-
-	-	-	Clubforde/ Johnston's Forde	Clubforde	-	-	-	-	-	-	-
-	-	-	-	Killroe	-	-	-	-	-	-	-
-	-	-	-	-	Holmanstowne	-	Hollmonston	-	Holmanstown	-	-
-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	Spearspointow ne	-	Spearspointsto n	-	Spearspointsto wn	-	-
Brokenbury/ Brakenberghe	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	Savadg	-	Savage	-	-
-	-	-	-	-	-	-	-	-	-	Blackhill	Blackhill
-	-	-	-	-	-	-	-	-	-	SW Ballycarry	SW Ballycarry
-	-	-	-	-	-	-	-	-	-	NW Ballycarry	NW Ballycarry
-	-	-	-	-	-	-	-	-	-	Knocknagullia gh	Knocknagullia gh
-	-	-	-	-	-	-	-	-	-	-	Carnbrock
-	-	-	-	-	-	-	-	-	-	-	Lockstown

Table 1 Names of townlands in the parish of Templecorran/Broadisland as recorded in various documents from the fourteenth century down to the present. It has not been possible to match all of the current names with those from earlier centuries (see Figure 4). Sources of information from (1) *Ecclesiastical antiquities of Down, Connor, and Dromore* (Reeves 1847); (2) *The Montgomery Manuscripts* (Hill 1869); (3) *Inquistiones Co. Antrim* (Hardiman 1829); (4) Ordnance Survey Memoirs for the parish of Templecorran (Day, McWilliams and Dobson 1994); (5) *Calendar of Patent Rolls of James I* (Griffiths 1966).

2.2.5 The scheduled enclosure

Templecorran church is located within a scheduled enclosure (ANT 047:068). According to the OS Memoirs, in the 1830s the burial ground of Templecorran church enclosed a quadrangular area, 176 feet square (equivalent roughly to 54 metres-square). It is, however, suggested that the graveyard was once much larger as human remains and coffins had reportedly been found outside the demarcated burial ground to the south and east (Day et al. 1994, 111). The foundations of several extensive buildings in the vicinity of the church were also recorded in the Memoirs. These are described as having 'walls much thicker than those of the present church' and were found in the graveyard and surrounding fields (Day et al. 1994, 111). Stone-built graves orientated east-west were also reportedly found to the east of the church (ibid. 112). The description of these graves matches that of early Christian 'lintel-graves' (i.e. with side and covering slabs) similar to those excavated at sites such as Kilnasaggart, County Armagh and at Nendrum monastery, County Down (Hamlin 2008, 88-91). The discovery of lintel-graves found in proximity to Templecorran church in the early nineteenth century or earlier (Day et al. 1994, 112) is suggestive of probable early Christian burials of the first millennium AD. The church, however, is not mentioned by Hamlin (2008) in her thesis on the archaeology of early Christianity in the north of Ireland. There is also no mention made in the OS Memoirs of any sort of enclosure or earthworks at Templecorran. The reported discovery of what have been interpreted as lintel graves and the recurrent location of early churches and monasteries within sub-circular enclosures (Edwards 1996, 106) presents the possibility that the enclosure at Ballycarry may be medieval in origin. If this was the case, the boundary may have been insubstantial and certainly did not survive as a significant topographical feature in the landscape by the nineteenth century.

2.3 Aerial photography

The scheduled sub-circular enclosure, some 300m across and enclosing Templecorran church, is demarcated in its western half by roads and field boundaries (Figure 2; Plate 1). In its eastern half, soil or crop marks of a destroyed arc of a bank and/or ditch north-east of Templecorran church defining the north-eastern circumference of the enclosure, were identified by Dr Tom McNeill from an aerial photo taken in 1961 (Plate 2). The RAF aerial photographs of the area taken ten years earlier in May 1951 (Plate 3) do not show this crop or soil mark north-east of the church. The 1951 photo, however, does show a hedge demarcating a boundary of one of the fields (representing the south-east quadrant of the enclosure) that is no longer extant in the 1960s (Plate 2) and which could explain at least part of the anomaly detectable in this later photo. These field boundaries are also shown in the 1834 OS 6`` map (Figure 3) which would suggest that the hedges had been in place for over a century but were removed sometime in the 1950s or 1960s. Neither of these two photos shows any discernible features

in the location of the geophysical anomaly detected by DVAS in 2008 within the enclosure west of the Bentra road (Figure 6).

2.4 Geophysical surveys

Three geophysical surveys have been carried out in recent years in the vicinity of Templecorran church, the enclosure (ANT 047:068) and the fort; in the late 1980s, 2008 and in 2009. The latter was carried out in conjunction with the CAF excavation.

2.4.1 1980s survey

Barrie Hartwell of Queen's University Belfast carried out a soil resistivity survey across an area of just under 0.2 acres (20m by 40m) to the north-east of Templecorran church in the 1980s (Figure 9). The purpose of the survey was to see if the sub-circular enclosure (ANT 047:068), apparently fossilised in the present road system to the west of the church, continues around the eastern side of the church. The continuation of the enclosure was detected in an aerial photograph of 1961 (see Section 2.3 above). John McClintock (1990, 23) also noted that in "the field on the east side of the churches when the grass is short, you can see from below the gate a semi-circular outline which could be the remains of a bank".

The soil resistivity survey detected a ridge of higher resistivity values which Hartwell argued is consistent with the possibility that this may represent "a bedrock shelf nearing the surface", or alternatively, the remains of a bank (Hartwell 1990, 29). Two topographic profiles at either end of the grid were also surveyed and these showed slight topographic highs which correspond with the ridge of high resistivity values recorded in the soil resistivity survey. Both of these anomalies track approximately northwest-southeast and Hartwell concluded that it is more probable that the data can be interpreted as the remains of a perimeter wall forming part of the enclosure (*ibid*.) rather than a natural rock outcrop. Neither survey indicated any evidence for a ditch.

2.4.2 2008 survey

Almost two decades later, a geophysical survey was carried out by Dearne Valley Archaeological Services Ltd (DVAS), in the townland of Ballycarry south-west on behalf of the landowner Mr Tom Topping (DVAS 2008). The site surveyed comprised 9.2 acres (approx. 250m north-south by 150m east-west). The survey area represents the western half of the scheduled enclosure which is subdivided into four pasture fields (ANT 047:068; see Plate 1).

A magnetometry survey was conducted over these four fields. A number of anomalies and possible archaeological features were detected (Figure 6) including the outline of a square-plan enclosure with two diagonally opposing spear-shaped corner bastions (south-east and north-west corners). A soil

resistivity survey was also conducted across the grid squares containing this feature. The results from this second survey confirmed the magnetometry results but they were not included in the report submitted by DVAS. The report described the feature as a 'foot print' of a building but does not state whether the anomaly represents a 'positive' (e.g. stone wall) or 'negative' (e.g. ditch) feature.

The overall dimensions of the outline of this structure measure approximately 33m north-south by 37m east-west. DVAS suggested that the plan compared best with that of a medieval tower house. However, the external dimensions of floor plans of medieval tower houses in Ireland range from around 19m by 10m at the top of the scale, to in and around 9m by 7m or 8m at the bottom (C. Donnelly pers. comm.). The scale of the Ballycarry structure represented by the geophysical anomaly is therefore much too big to be a typical tower house. The presence of angular corner bastions, a feature typical of post-medieval forts, is also much more like a sixteenth- or seventeenth-century bawn (Jope 1960) or artillery fort such as the forts at Mount Norris, County Armagh and Mountjoy, County Tyrone for example (see Hayes-McCoy 1964). The scale too is closer to that of such structures. It is therefore highly unlikely that the geophysical anomaly in the townland of Ballycarry south-west is that of medieval tower house but rather that it is of a post-medieval fort or bawn.

2.4.3 2009 survey

In December 2009, in conjunction with the CAF excavation, a 30m by 30m grid square overlying the north-western corner bastion of the fort, as detected in the DVAS survey, was re-surveyed as part of a QUB undergraduate project (Bennett 2010). The aim of the student project was to target known archaeological sub-surface features (in this case the fort at Ballycarry) located on different geologies (basaltic at Ballycarry). The results of the magnetometry survey (Figure 7) proved to be more successful than the soil resistivity survey (Figure 8), as was also the case with the DVAS survey of 2008, and the results of the two surveys, 2008 and 2009, correlated well. The survey was conducted while the excavation was on-going by which stage it had been established that the fort was represented by a rock-cut ditch. Bennett's resistivity survey, however, did detect a linear low resistance that correlated with the ditch, bordered immediately to its interior by a reading of high resistance. Bennett (2010, 64-5) suggests that this latter anomaly could represent the remains of an internal wall. This area was not excavated.

2.5 Previous excavations

At least three archaeological excavations have been previously undertaken within the enclosure (ANT 047:068) at Ballycarry though all three were located west of the Bentra Road and within the townland of Forthill rather than Ballycarry south-west where the fort is located. In 1989, excavations were conducted within the graveyard of St John's Church (Plate 1) by John McClintock (McClintock 1990). Adjacent to this graveyard, to the south and located towards the centre of the enclosure,

excavations were carried out some sixteen years later in 2005 at the site of a former dairy complex (Plate 1. IHR 0712600000; NGR J44889356), in advance of the construction of the housing development of Dairy Holm (unpublished. See SM7 file, NIEA MBR. See also Plate 1). No features of archaeological significance were found at either of these two sites.

The third excavation in the locale was undertaken by ADS Ltd in 1993 and 1994 in advance of developments in the Churchlands housing estate (Crothers 2000). The development was located along the approximate projected line of the scheduled enclosure in the south-east quadrant and the excavations uncovered remains dating to the Neolithic, medieval and post-medieval periods (Plate 1). Two parallel shallow ditches on a north-south alignment were exposed, along with traces of a slight bank, 4.5m wide, surviving between them. These features have been dated to the late Neolithic based on the associated lithic and pottery assemblages (Crothers 2000, 45). The ditch features curved slightly from south through east to north and followed the projected outline of the large enclosure defined by roads and field boundaries to the west. Although a 34m long section of one of the ditches was uncovered, Crothers was cautious of linking the two and suggested that the projected continuation and outline of the Neolithic enclosure was smaller than that preserved in field boundaries and road layouts (Crothers 2000, 45). The excavations also indicated that the prehistoric bank was levelled, over which a drystone wall was built in the medieval period. Other features found were interpreted as possible structures and working areas associated with the medieval activity at the site. The absence of Souterrain Ware and presence of pottery dating to the thirteenth century and later, suggest that this activity dates to the high and late medieval periods.

3 2009-2010 Excavation

3.1 Circumstances of the 2009-2010 excavation

The landowner Mr Topping, commissioned a geophysical survey in 2008 in advance of an application to develop the site, in order to ascertain the extent of archaeology within the western half of the scheduled enclosure (ANT 047:068). Based on documentary sources (see Section 2.2) and previous archaeological investigations in the area (see Sections 2.3-2.5) possible burials, pits, postholes, ditches and/or banks were features that may have been expected to turn up. The discovery of the previously unknown post-medieval fort was, however, completely unexpected. On receipt of DVAS' survey report (DVAS 2008) the NIEA commissioned an archaeological evaluation of the sub-surface geophysical anomaly and probable fort to better inform their management of the newly discovered site.

3.2 Methodology

Six test trenches were opened to assess the nature of the geophysical anomaly recorded by DVAS in 2008 (Figure 7). All excavations were conducted by hand and, on completion of the excavation, the six trenches were back-filled and the sods were reinstated (Trenches 4, 5 and 6 were left open for a period of three months, to facilitate visits to the site, and backfilled at the start of May 2010).

The context records for the excavation were created using the standard context recording method and for each trench the trench number was incorporated into the register of numbers allocated to contexts (i.e. Context numbers 101, 102 for Trench 1; 201, 202 for Trench 2, etc.). Features were photographed both prior to, and following, excavation and a series of plans and section drawings of archaeological features were made for Trenches 4 and 6 (the other trenches did not contain any features or finds of archaeological interest). In addition to photography and illustration, the principal site records consist of context sheets and a field notebook.

The registers of context numbers for each trench are detailed in Appendix 1 and the Harris Matrices for Trenches 4 and 6 are presented in Appendix 2. The miscellaneous finds are catalogued in Appendix 3. The pottery sherds are catalogued separately in Table 2 and clay pipe fragments in Table 3 (see Sections 4.2 and 4.3 respectively).

3.3 Archiving

Copies of this report have been deposited with NIEA and the landowner. All site records and finds are temporarily archived within the School of Geography, Archaeology and Palaeoecology, Queen's University, Belfast.

3.4 Credits and acknowledgements

I would like to thank the landowner Mr Tom Topping for permission to excavate and carry out fieldwork at the site and for providing security fencing for the trenches. DVAS supplied additional data from their 2008 survey. Mr George Rutherford of Ballycarry generously volunteered his time to assist us on our excavations on site and also brought Nelson's article on Archibald Edmonstone to my attention. The CAF excavation crew were Ruth Logue, Brian Sloan and Cormac McSparron. The illustrations were prepared by Eiméar Nelis (formerly of CAF), Ruth Logue and Sapphire Mussen. I would also like to thank Kay Muhr, Barrie Hartwell and Tom McNeill for discussion and advice on documentation on Ballycarry.

3.5 Account of the 2009-10 excavation

An account of the 2009-2010 excavation at Ballycarry south-west is detailed below by trench. In two of the six trenches opened along the northern extent of the fort, Trenches 4 and 6, two sections of an earth- and rock-cut ditch were encountered. No features of archaeological interest were encountered in Trenches 1, 2 and 3, and Trench 5 was only partly excavated.

3.5.1 Trench 1

Trench 1 (5m x 2m) was opened approximately mid-way along the northern side of the fort, as determined by the geophysical survey, with the long side of the trench orientated north-south and perpendicular to the northern side of the fort (Figure 6).

The sod was removed revealing an homogenous mid-brown loamy topsoil (C.101). This proved to be relatively shallow, 0.1-0.2m in depth, and directly overlay bedrock (Plate 4). The surface of the bedrock was uneven with patches of orange-brown subsoil overlying the rock in places, in particular at the southern end where the bedrock dipped northwards slightly (Plate 5). The topsoil produced two sherds of pottery, two metal objects, pieces of slate (Appendix 3), and four clay pipe stem fragments (Table 2). Apart from these miscellaneous finds no features of archaeological interest were encountered and the trench was photographed and backfilled.

3.5.2 Trench 2

Trench 2 (5m x 2m) was opened on the same alignment as Trench 1, approximately 26m to the south of it, and mid-way along the southern side of the fort (Figure 6). The sod was removed to reveal a mid-brown loamy topsoil (C.201) across the full extent of the trench. No further excavation was carried out of the southern 1.5m length of the trench.

The topsoil across the northern 3.5m length of the trench was excavated and at a depth of 0.35m the stony orange subsoil was encountered (Plate 6). Running diagonally across the north-western corner

of the trench was a thin, circular (0.03m diameter) rusted metal pipe (C.204). It was set slightly off-centre in a linear cut (C.205). The cut was 0.2m wide and had a grey-brown loamy fill (C.203). The cut and pipe ran on a south-southwest/north-northeast alignment and an approximately 2m length was uncovered (Plate 7). No sign of the cut (C.205) was observed during the excavation of the overlying topsoil (C.201) nor was the cut visible at a higher level in the section faces of the excavation trench. No trace or reflection of the metal pipe is discernible in the geophysical survey results provided by DVAS (Figure 4). On encountering the subsoil and the metal pipe no further excavations were carried out and the trench was photographed and back-filled. Finds recovered from Trench 2 comprised struck flints (1.28kg), glazed pot sherds (0.28kg), two fragments of brick, a fragment of bottle glass, a piece of corroded iron (Appendix 3) and fragment of a clay pipe stem (Table 2). These were all found in the topsoil (C.201).

3.5.3 Trench 3

Trench 3 was opened approximately 5.7m north of Trench 1, on the same alignment, and measured 5m by 1m. The same stratigraphy as encountered in Trench 1 was found in Trench 3 with the sod and topsoil (C.301) overlying the bedrock which was encountered at a depth of 0.29m-0.32m and with pockets of orange subsoil surviving in places (Plate 8). Finds recovered from the topsoil (C.301) comprised struck flints (0.18kg), glazed pottery sherds (0.06kg), a fragment of window glass and a cattle molar (Appendix 3) along with a clay pipe stem and two clay pipe bowls of probable midseventeenth century date (Table 2; Plates 9-10).

3.5.4 Trench 4

Trench 4 (4m x 1.5m) was opened between Trenches 1 and 3 and on the same alignment (Figure 5). Removal of the sod and topsoil (C.401; 0.12m-0.22m thick), exposed a mid-brown clay loam (C.402), with the bedrock (C.407) protruding at the northern and southern ends of the trench. This deposit (C.402) had inclusions of small angular stones throughout and was 0.2m-0.28m in depth. It lay directly over the surface of the basaltic bedrock - fractured at the southern end (Plate 11) and degraded or rotten at the northern end - and the roughly parallel edges of the top of a rock-cut ditch (C.404) approximately 3m in width (Plate 12). The upper ditch fill was a reddish-brown sandy clay (C.403, similar to C.402 overlying it), and extended for a depth of 0.3m. This was separated from the main fill (C.408) by a sterile gritty loam 0.1m in depth (C.405). This deposit (C.405) was notably stonier than other fills and may represent an accumulation of weathered bedrock eroded from the sides of the rock-cut ditch. The main fill (C.408) was a mid- to dark-reddish brown sandy clay (similar to C.403) and it overlay a greyish brown sterile clay (C.406) that formed the basal fill of the ditch. This appeared to be a natural accumulation of silt and other weathered debris washed in by rain and wind.

The fully excavated section of ditch measured 2.9m in width across the top, narrowing to 1.1m at the base, with an overall depth of 1.55m. It was U-shaped in profile with steeply sloping sides, and a flatish bottom (Plates 12, 13 and 15; Figures 10 and 11). The main finds, all from C.401 with the exception of some flint from C.403, were struck flints (1.83kg), pottery sherds, mostly cream wares (0.08kg), a fragment each of window glass and vessel glass, two pieces of brick (Appendix 3) along with five tobacco clay pipe stem fragments and a mid-nineteenth century pipe bowl (Table 2; Plate 14).

3.5.5 Trench 5

Trench 5 (3m x 2m) was opened 16m west of Trench 4 on the same alignment as Trenches 1-4 with the northern edge of the trench aligned with the northern side of the ditch (C.404) as encountered in Trench 4 (Figure 7). The sod and topsoil (C.501) was excavated to a depth of 0.4m exposing a sterile orange stony loam (C.502). The main finds recovered from this horizon were struck flints (2.3kg) along with some glazed pottery sherds (0.15kg), two fragments of red brick, a piece of slate, a fragment each of window and bottle glass (Appendix 3) and one clay pipe stem fragment (Table 2). Excavation of the trench ceased at this depth. It was photographed (Plate 16) and backfilled.

3.5.6 Trench 6

Trench 6 was opened in between Trenches 4 and 5 (Figure 6) and measured 2.5m by 3m. The sod and topsoil (C.601) were removed by hand to expose a mid-brown loam (C.602), slightly coarser and stonier than the overlying sod. Removal of this layer revealed a curvilinear spread of a patchy charcoal and clinker deposit (C.604), approximately 0.1m in width. It ran south from midway along the northern baulk and curved eastwards running into the south-eastern corner of the trench (Plate 17). To the east of this was a stony deposit intermixed with lumps of clay (C.605). A test-pit or sondage was opened across the full length of the northern side of the trench, 0.5m in width (north-south), to clarify the nature of these deposits. This determined that C.604 extended eastwards under C.605 and that these deposits formed the upper fills of a linear cut (C.603). The sondage was extended to the south leaving a 0.5m unexcavated baulk at the southern end of Trench 6 to allow access into and out of the trench (Plate 18). The clinker deposit (C.604) proved to be shallow, 0.03-0.04m in depth. It overlay a coarse loamy-clay with gravel, stones, pieces of flint and degraded basalt and occasional lumps of coal (C.606). This deposit was confined to the western side of the ditch and had a greatest depth of 0.5m. This in turn overlay a sterile orange-brown coarse, gritty and silty clay of variable consistency (C.607) and there was a marked difference in colouration between this layer and the overlying deposits. Pressed into this deposit, at a depth of 1.45m and running into the northern baulk of the trench (not illustrated), was a shallow grey-brown mottled amorphous lens of clay (C.609), containing charcoal and calcined bone, and measuring 0.8m east-west by 0.25m north-south. This was half-sectioned but proved to be a shallow isolated lens. The basal fill of the ditch, underlying C.608

was a greyish-brown loose sandy and stony layer, 0.14-0.21m thick (C.610). A thin lens of iron pan was also recorded in section at the base of the clay fill (C.607) in the west-facing section of the trench.

The upper edges of the ditch were not uncovered within the excavation trench and so the full profile of the ditch was not revealed. The excavated section, however, showed that the ditch (C.603) had a broad U-shaped base with gently sloping side and measured approximately 1.5m in depth and over 2.3m in width. The base of the ditch was relatively flat, with a slightly uneven rock-cut surface and with a gentle slope. Finds from Trench 6 comprised flints, pottery and a fragment of green bottle glass (Appendix 3).

Discussion of Trench 6

The section of the fort ditch excavated in Trench 6 represents the junction between the eastern northsouth ditch of the north-western bastion and the northern long side of the fort. The top of the ditch extended beyond the edges of the excavation trench on both sides so the full profile of the ditch was not revealed. This also meant that any features there may be to the interior or exterior of the ditch were not uncovered. However, it seems probable that a stone and/or earthen bank or platform of some form was built to the inside of the ditch which, coupled with the ditch, would have formed the defensive outworks of the fort. The results of the 2009 soil resistivity survey would also lend support to this suggestion (see Section 2.4.3). No traces of mortar were found in the ditch fills, or in the ditch section excavated in Trench 4, and only a handful of brick fragments were found across the site, all from the topsoil (see Appendix 3). This would suggest that any bank or rampart that was constructed to accompany the ditch was probably built of organic materials. The bastion too may have been infilled to form a platform and 'cushion' on which to place artillery (see Section 5). It seems possible that some of the clay-loam ditch fills, which are deeper on the eastern side of the ditch (C.607 and C.606), could represent the remains of such features that either slumped into the ditch after its abandonment, or, which were deliberately slighted and back-filled into the ditch to level-up the site after it went out of use. The basal deposits (C.608 and C.610), were both sterile stony layers and appear to represent the natural accumulations of wash and slip due to the weathering and silting-up of the ditch.

4 The finds

The main finds recovered from the excavations were struck flints. A range of pottery sherds and some clay tobacco pipe bowls and undiagnostic stem fragments were also found. The majority of these, along with other miscellaneous finds (glass, slate, bone, brick and metal) were recovered from the topsoil and do not merit detailed analysis. A short note on the flint, pottery and tobacco pipes by Brian Sloan, Cormac McSparron and Ruairí Ó Baoill respectively follows below. The few other finds are listed and briefly described in the catalogue of finds for the site (Appendix 3). Bulk samples (5kg-7.2kg each) were recovered from the basal fills of the ditch in Trenches 4 (samples from: C.403, C.406 and C.408) and 6 (samples from C.604 and C.609). These have been dried, floated and sieved and have not yielded any charred seeds or grain or other material suitable for radiocarbon dating.

4.1 Flint by Brian Sloan

A total of 377 flint artefacts were recovered during the excavations of the fort at Ballycarry and these were recovered from all six trenches. On the whole, the assemblage was dominated by angular shatter and thermally shattered lumps of flint (211/377: 56%) which are of no archaeological significance. The rest of the assemblage comprises; cores (and core fragments) (6/377: 2%), flake debitage (i.e. complete and broken flakes and blades) (138/377: 38%) and modified tools (22/377: 6%). The assemblage exhibits a varied degree of patination, with most pieces exhibiting at least minor patination on one or more surfaces.

The assemblage is relatively undiagnostic and lends little to the interpretation of the site. The reduction strategies noted on the fragmentary cores and flake debitage would exclude a Mesolithic date and therefore evidence for activity of this period in the vicinity of the excavation area. The modified tool component of the assemblage mostly comprises retouched flakes, although several medium to large scrapers (upwards of 40mm in length) were recovered. These are a relatively undiagnostic tool form, as changes in size and morphological characteristics are likely to be functional rather than chronological.

4.2 *Pottery* by Cormac McSparron

One hundred and eighty three sherds of pottery were found during the Ballycarry excavations. The types of pottery found in each context are detailed in Table 2. Pottery dating from both the Medieval and Post-Medieval periods was encountered, with, in particular, a wide range of domestic wares of the eighteenth and nineteenth centuries.

Post-Medieval Pottery

The assemblage is dominated by Creamwares and Pearlwares. Undecorated Creamwares account for 67 of the pottery sherds with 34 under-glaze painted Creamware and Pearlware type sherds.

Creamware emerged in mid-eighteenth century Staffordshire (Francis 2001) as a rival to fine Chinese porcelain, replacing the earlier Delftware potteries in the process. By the late eighteenth century there was a thriving pottery in Belfast producing both Creamware and Pearlware with blue under glaze decoration (*ibid.*, 5) and it is possible that some of the sherds in the Ballycarry assemblage may be its product. Eleven sherds were of a Creamware type fabric with transfer printed decoration. The blue coloured transfer printed vessels can date from the end of the eighteenth century. The process to allow other colours in transfer printing was not developed until the early nineteenth century suggesting that most of the transfer printed vessels in the Ballycarry assemblage are early nineteenth century or later (Gahan and Twohig 1997, 156). Creamware and variants are found in all the topsoil strata on the site. They are absent, however, from non-topsoil deposits.

Twenty-seven sherds of apparently locally made earthenware were uncovered. Of these seven have a brown glaze, eight have a yellow glaze and twelve were unglazed. Local Ulster earthenwares have not been widely studied but they seem to date from the later eighteenth century/early nineteenth centuries and to have been produced at a number of locations, twenty seven regional potters being mentioned in Lewis' *Topographical Dictionary of Ireland* in 1837 (Orser 2000). These earthenwares occur in the topsoil strata of all the trenches, although interestingly there is a separation of the earthenwares with brown glazed earthenware, found in the topsoil layers of Trenches 2, 3 and 6, as well as Context 202 and yellow glazed earthenware found in Trenches 4 and 5.

Twenty six sherds of Blackware were found from the excavations. This is utilitarian earthenware, typically large wide bowls used for dairying and other food production purposes, and it was produced from the eighteenth century and throughout the nineteenth century. Much of it was manufactured at Buckley in north Wales (McCutcheon 1997, 94), the Buckley Ware being identifiable by a yellow ripple in its fabric. The remainder is likely to have been produced in Ireland, possibly locally. Blackwares were found scattered throughout all the excavated topsoil layers, with the exception of the topsoil layer in Trench 6.

Six pieces of stoneware vessels were found in the topsoil layers in Trench 1 and Trench 5. Five of the vessels were stoneware bottles with a grey fabric and grey brown exterior salt glaze, the sixth was a stoneware jar, with a white fabric and salt glaze and a fluted exterior. The brown glazed vessels are likely to be Nottingham Stoneware, which was produced from the late- seventeenth to nineteenth centuries (Gahan and Twohig 1997, 151).

	Cream- ware	Under glaze Painted Creamware	Transfer print decorated pottery	Blackware (Buckley)	Blackware (Other)	P-med Earthenware - Brown glaze	P-med Earthenware - yellow glaze	P-med Earthenware - unglazed	Sponge- ware	Medieval (Scot.)	Medieval (Other)	North Devon gravel free	Stone- ware	Staffordshire trailed slipware	Carrickfergus Brownware
Tr1 Topsoil	31	16	5	7	7	-	5	6	1	-	-	1	5	1	-
Tr2 Topsoil	6	2	1	-	4	4	-	-	-	-	-	-	-	-	-
Tr2 202	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
Tr3 Topsoil	8	2	2	-	1	1	-	1	1	1	-	-	-	-	-
Tr4 Topsoil	13	7	3	1	1	-	2	-	-	-	2	-	-	-	-
Tr5 Topsoil	4	2	-	2	3	-	1	3	-	-	-	-	1	1	1
Tr6 Topsoil	5	4	-	-	-	1	-	2	-	-	1	-	-	-	-
Tr6 606	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-
Tr6 606/7	-	-	-	-	-	=	=	=	-	1	-	-	-	=	-
	67	34	11	10	16	7	8	12	2	2	4	1	6	2	1

 Table 2 Frequency of pottery sherds by type and trench/context.

Two pieces of Staffordshire Trailed Slipware were excavated in the topsoil layers of Trench 1 and Trench 5. These were brought into Ireland from the Staffordshire, and Bristol, areas from the later seventeenth through much of the eighteenth century (*ibid.* 147). In addition one piece of North Devon Gravel Free Pottery was found in the topsoil of Trench 1. This type was produced from the late sixteenth century but only becomes common in Ireland in seventeenth century contexts (Gahan and Twohig 1997, 143). One piece of Carrickfergus Brown Ware which dates from the later seventeenth to early eighteenth century and one piece of Scottish Spongeware which was in production from the early to mid-nineteenth century through to the early twentieth century were also found in the topsoil of Trenches 5 and 3 respectively.

Medieval Pottery

Six sherds of Medieval Pottery were found during the excavation. Two pieces appear to be fragments of Scottish Late Medieval Reduced Ware, a pottery type with a mid-grey reduced fabric and mid green or olive glaze, which first appeared in the fourteenth century and continued in production, with some evolutionary change, for several centuries (Franklin 2004). One piece was found in the Trench 3 topsoil, one piece on the interface of Context 606 and 607, in Trench 6.

Four other sherds of Medieval pottery were found. One small body sherd from Trench 4 topsoil had a buff fabric and an olive glaze, the second, also from Trench 4 topsoil appeared to be the join of a strap handle to the body of a vessel, possibly a jug. It had variegated grey and orange/buff fabric and had traces of olive green glaze. It was decorated with four deep knife incisions. A fifth sherd of Medieval pottery was quite abraded, with a grey fabric core and thick orange margins. Its exterior is reddish brown with a few spots of a yellow glaze still adhering in places. A somewhat similar sherd was found in Trench 6, Context 606. It is abraded with a grey cored fabric and orange margins. It contains red iron oxide and basaltic inclusions up to 2mm in size. There was one spot of probable yellow glaze on the fabric.

Discussion

The assemblage from the 2009/10 excavation is similar to the assemblage found by Norman Crothers during his excavation (Crothers *et al.* 2000), located approximately 150m east of the 2009/10 excavation on the other side of the Bentra Road. Audrey Gahan (Crothers *et al.* 2000) identified from the site Creamwares, Buckley Blackwares, Bristol/ Staffordshire wares, earthenwares and transfer printed wares from the post-medieval period through to the nineteenth century. She also identified French and English Medieval pottery (2 sherds each) as well as 43 sherds of what she identified as locally produced vessels with "orange-light grey fabric" and glaze, where present, of "mid to dark green" colour. Like those from the more recent excavations many of the sherds were badly abraded, many with no trace of glaze, although it may have been present originally. It is possible, given that

Scottish Late Medieval Reduced Ware has only recently been identified in Ulster, that some of these sherds may be of this type.

At Ballycarry almost all the pottery comes from the topsoil and is a mixture of Medieval through to modern types with the emphasis on later eighteenth or early- to mid-nineteenth century vessel sherds. Only four sherds came from non-topsoil contexts, two Medieval fragments, a fragment of brown glazed earthenware and a sherd of an under glaze painted Creamware type vessel. It is unlikely, given the small size of most of the sherds, and especially the abrading of some of the Medieval pottery, that many of these sherds were found close to their place of original deposition. It is likely that most of these sherds were dragged to, or close to, their find spots during the course of manuring by dragging midden material from houses and farmsteads to the surrounding fields, into which it was subsequently ploughed.

4.3 Clay tobacco pipes by Ruairí Ó Baoill

A total of 19 clay pipe fragments were recovered from the fort excavation Ballycarry (detailed in Table 3). The majority of the assemblage (16 fragments out of 19) comprised undiagnostic fragments of undecorated clay pipe stem. The remaining three fragments consist of two intact and one partially intact clay pipe bowls. The bowls appear to date from the seventeenth, eighteenth and nineteenth centuries, respectively.

7D 1	Context	No. of	Interpretation					
Trench	No.	fragments						
1	101	4	Undiagnostic fragments of clay pipe stem. Probably 17thC.					
2	201	1	Undiagnostic fragment of clay pipe stem. Probably 17th or					
			18thC.					
3	301	1	Undiagnostic fragment of clay pipe stem. Probably 17th or					
			18thC.					
3	301	4	Two undiagnostic fragments of clay pipe stem, an intact pipe					
			bowl and an incomplete pipe bowl. The stem fragments					
			probably date to the 17th or 18thC. The complete bowl has					
			milling around the rim and a circular flat heel. Probably mid-					
			17thC in date. The incomplete bowl has a prominent spurred					
			heel. Probably mid-18thC in date.					
4	401	4	Three undiagnostic fragments of clay pipe stem. Probably 17th					
			or 18thC. One complete bowl with spurred foot and a stamp of					
			two game birds (cockerels) within a banner that reads 'COCK					
			OF THE NORTH'. Probably mid-19thC and Scottish.					
4	'Ditch	2	Undiagnostic fragments of clay pipe stem. Probably 17th or					
	Fill'		18thC.					
5	501	1	Undiagnostic fragments of clay pipe stem. Probably 17th or					
			18thC.					
6	Unstrat.	1	Undiagnostic fragment of thick pipe stem with square heel.					
			Probably 17thC.					
6	601	1	Undiagnostic fragment of clay pipe stem. Probably 17th or					
			18thC.					
TOTAL		19						

Table 3 Catalogue of the clay tobacco pipe finds from Ballycarry.

5 Discussion

5.1 The scheduled enclosure and the fort

There is no evidence to indicate that there is any association between the fort and the scheduled enclosure within which it is located. The authenticity of the latter as a feature of archaeological interest is also uncertain. Hartwell suggested that the anomaly he recorded in his survey may have been a wall but the results are inclusive. Given the topography of the area, with the occurrence of outcrops and dykes of basalt, it could just as easily represent a rock outcrop or break in slope. The nineteenth century OS maps and the aerial photos of the 1950s both suggest the possibility that the crop-mark noted by McNeill in the later 1961 photo may represent traces of an earlier hedge-line. The curvilinear alignment of this hedge could, however, have been laid to follow a residual bank or boundary of some form and Crothers excavations in the south-east quadrant did confirm the presence of a Neolithic and later medieval bank on roughly the same alignment. The evidence for the large subcircular enclosure is therefore equivocal.

The discovery of the possible lintel burials recorded in association with Templecorran church might suggest that it is early medieval in origin and possibly set within an ecclesiastical enclosure. Crothers did not find any burials on his excavations while all of the medieval pottery he found dated to the thirteenth century and later. The excavations of the fort within the enclosure in 2009 and 2010 also did not produce any finds of early medieval date. Whatever the authenticity of the enclosure, the evidence for early medieval activity in the area is slight and both the pottery and documentary records would suggest a 'high medieval' date for the church.

5.2 Design and layout of the fort at Ballycarry

Geophysical surveying has recorded the scale and plan of the fort at Ballycarry; a square-plan enclosure, approximately 33m - 37m across, with two spear-shaped bastions at opposing corners measuring roughly 60m - 61m from salient point to point. The inaccuracy in these measurements is due to the margin of error inherent in the technique although the plan as recorded by the survey is almost a test-book case in its distinct visibility. The results of the magnetometry survey do not indicate whether the outline reflected a positive (e.g. wall or bank) or negative (e.g. ditch) feature. The excavation has demonstrated that it was delineated by a rock cut ditch, 1.2m - 1.4m in depth and around 2.7m wide. No evidence for any associated structural remains - walls, banks, ramparts or palisades, was identified through either investigation. No mortar or cut stones and just a handful of brick fragments were found suggesting that any defensive features must have been organic, of earth/sod and/or timber.

This style of fort with a regular layout and corner bastions is one which was developed and constructed across Europe from the sixteenth century to counteract the increasing use of artillery and to mount guns (Kerrigan 1980-1, 3; Gowen 1980, 239). The defensive strength of these new fortifications typically lay in the relative thickness of the ramparts which were often over 15 feet thick (equivalent to around 4.6m) with a battered exterior, sometimes revetted and surmounted by a parapet (Gowen 1980, 239). The ramparts, and bastions, were in turn often surrounded by a wide ditch (*ibid*.). Angular corner bastions on these forts were typically solid and served as gun emplacements though not exclusively so; hollow bastioned projections were also constructed and would have served as lookouts or positions for musketry (Gowen 1980, 241-6). The earliest examples of this form of fort appeared in Ireland at coastal sites during the reign of Edward VI and continued to be built at various locations during Elizabeth I's reign (Kerrigan 1980-1, 3; Gowen 1980, 253). In Ulster this style of fortification was widely adopted by English forces in the early seventeenth century and examples include Mount Norris in County Armagh, the fort in Omagh and Fort Mountjoy on the shores of Lough Neagh. Illustrations of these by Richard Bartlett circa 1601 are reproduced in Hayes-McCoy (1964) and Gowen (1980, 243 and 244) though it is likely that some artistic licence has been employed in the execution of these drawings and that the forts, on the ground, were less formal.

The private domestic residences of the Scottish and English settlers in Ulster in the early seventeenth century typically comprised a house, executed in various styles, surrounded by an enclosure or bawn (Jope 1960; Curl 1986). The plans of bawns that were both executed and those that survive as drawings only, demonstrate that many had square-plan enclosures with one to four corner-towers or flankers. The bawn at Magherafelt no longer survives but it was depicted by Raven as having three irregular angular corner flankers built of stone and lime (Curl 1986, 321-3; Jope 1960, 106). Raven's plan of the bawn and castle at Moneymore depicts it with two opposing angular corner flankers and a surrounding ditch (Curl 1986, 181; Jope 1960, 105) and Pynnar records the same bawn as measuring 100 feet square (Curl 1986, 180), equivalent to 30.5m.

The scale and layout of the fort at Ballycarry as recorded by the geophysical survey and excavation, is therefore not inconsistent with it being either an artillery fort or a Plantation bawn of sixteenth- or seventeenth-century date.

5.3 When was the fort at Ballycarry built and by whom?

There are a number of possibilities in answer to this question. The plan and layout of the fort dates it to the sixteenth or seventeenth century and unfortunately no well stratified or tightly dateable finds were recovered during the excavation that might have helped to narrow-down this date range. The lack of finds, however, suggests that it had at least a short period of use.

Four main events or periods of 'military activity' are identified and suggested here as being the most likely stimuli for the fort's construction and use; the Nine Years War (1594-1603); the Ulster Plantation; the 1641 Rising and Confederate Wars (1641-53); and the Williamite Wars of the 1680s.

The earliest military forts constructed in Ulster were built during the Nine Years War. Although the plans of the earthworks differed they were all laid out on the principals of artillery fortification (Kerrigan 1995, 5). These typically had bastions or demi-bastions built at salient angles and were constructed by the soldiers to hold key strategic points, Mount Norris in County Armagh for example (*ibid.*). Post 1601, and the Battle of Kinsale, there was a concerted effort of military fortification under the auspices of Mountjoy with notable examples including Charlemount on the Blackwater and Fort Mountjoy near the shores of Lough Neagh (Gowen 1980, 241). Some of these campaign forts were subsequently replaced by masonry works (Kerrigan 1995, 6). There are little surviving documentary or pictorial records indicating the nature of contemporary Irish fortifications. A notable exception is a 1602 pictorial representation, by Richard Bartlett, of the O'Neill fort and stronghold of Inisloughan (Kerrigan 1995, 19; Hayes-McCoy 1964, pl VI). In terms of fighting and campaigns in the locale of Ballycarry during the war, on the 4th November 1597 Sir John Chichester, the Governor of Carrickfergus (and brother of Sir Arthur Chichester) was killed in the glen of Altfrackyn (Aldfreck) located just north of Redhall estate and the village of Ballycarry (see Figure 4). His troops were effectively routed by Scottish and Irish forces under the command of James MacDonnell, son of Sorley Boy (McSkimin 1909, 31; Ó Direáin and McHugh 2010, 313-5). The presence of troops in the area may have instigated the construction of a fort, by either side, such as that at Ballycarry; the battle was also preceded by a short spat of cattle raiding in and around Kilroot and Islandmagee (Ó Direáin and McHugh 2010, 313). Indeed in the decades before the onset of the Nine Years War, in particular in the early 1570s (1573-5) when Walter Devereux, the Earl Of Essex came to Ulster, there was much raiding, massacres and fighting in the east of the province. This period of hostilities between the Irish, largely the O'Neills and MacDonnells, against English troops under Devereux might also be considered, along with the period of the war itself, as the impetus for fort construction in east Antrim.

A second possibility is that the fort at Ballycarry could be a fortified residence or bawn of the earliest Planters in the area, John Dalway or the Edmonstones, and date to the opening years of the seventeenth century (see Section 2.2.1 above). In the 1609 lease from Dalway to William Edmonstone, it is stipulated that the lease is held "on the usual conditions of finding five able horsemen, properly equipped, to attend for forty days yearly the general hostings of the Lord Deputy; and within five years to build a bawn, namely a fortified mansion of lyme and stone, covered with slate, which shall cost in building £300, Sterl" (Edmonstone 1875; McSkimin 1909, 475. A source for this deed is not cited in either publication). In the 1609 deed preserved in the *Calendar of Patent Rolls of James I* the provision of five horsemen, to attend Dalway rather than the lord deputy is mentioned

(Hill 1869, 57-8) but there is no mention of a house or bawn (see Section 2.1.1 above). The standard 'fortified dwelling' of the period was a house accompanied by a bawn (Jope 1960; see Section 5.2) and Pynnar's 1618 survey of Plantation buildings in counties Armagh, Tyrone, Donegal, Cavan and Fermanagh records bawns ranging in size from 60 feet square to 200 feet square (equivalent approximately to between 18 and 61 metres square). The enclosure at Ballycarry, measuring 33-37m across, fits well within this record. The majority of these bawns were built in stone and lime and had two or four flanking towers (Pynnar 1619, 93). There are no records to indicate if William Edmonstone fulfilled the terms of the lease and no structural remains have been identified as a possible bawn - the newly discovered fort at Ballycarry could, however, be the remains of the Edmonstone bawn. The results of the geophysical survey clearly show the line of the enclosure but there are no obvious traces of a house or building within it. Most of the houses within bawns depicted by Raven appear to be stone- or brick-built, and this is confirmed by Pynnar, although a large proportion of the houses built by the new settlers to Ulster were timber framed or of cagework (Jope 1960, 110-1). These would leave little or no structural traces behind, as excavations at Movangher for example of shown (Horning 2010). Further detailed survey and/or test excavations within the enclosure could help to determine if there were any structures within the boundary of the fort.

Even if the fort can be identified as a bawn, with or without further archaeological investigation, the identity of the occupant would still be uncertain. William Edmonstone leased the estate of Redhall from 1609 and it is possible that the old tower house at Redhall fulfilled the remit of a 'fortified dwelling'. Edmonstone subsequently modified and extended the tower house to build 'Red Hall house' possibly in or around 1627 to which the oldest roof timbers have been dated (Ó Direáin and McHugh 2010, 130). Further improvements and additions were also made to the house in 1632 (*ibid*.). Potentially, the Edmonstones built a bawn in 1609 at Ballycarry and only latterly moved to Redhall following the upgrading of the tower house in the late 1620s or early 1630s. Unfortunately, as this was part of the more ad hoc 'Scottish Plantation' rather than the official Crown Plantation of the escheated western counties of Ulster, surveys such as those conducted by Pynnar in 1618 and 1619 and Phillips and Raven in 1622 (Jope 1960, 105) were not commissioned. Contemporary documentation that might have recorded the form and status of houses, bawns and fortifications in the area is therefore limited and often non-existent. If William moved to Redhall in 1609, the fort or bawn at Ballycarry may still have been an Edmonstone enterprise but have been occupied instead by relatives or other members of their community. One possibility is the Reverend Brice who accompanied William from Stirlingshire to Antrim and preached in Templecorran church (see Section 2.2.3). In the Montgomery Papers, Hill (1869, 137) states that there is no evidence that William's brother James Edmonstone (the pair were granted lands in County Down in 1607) ever lived in Ulster yet in 1621 William Edmonstone of Redhall appointed a James Edmonstone of Ballybantry as executor to the will of another relative (ibid. 137). It seems likely that this James is a relative and most probably his brother. In 1636 there is a further reference to a James Edmonstone who, in this instance, is sold the towns and lands of Crossleggedrom, Randocke, Largy and Gartry (*ibid.*, 137) in the parish of Kilead, County Antrim and who, described as 'James Edmonston of Brediland', then sells these lands on soon after (ibid.). 'Brediland' is doubtless a variation on the spelling of the parish of 'Broadisland' while 'Ballybantry' correlates with the townland 'Ballibantragh' (included in the 1608 grant of Broadisland to Dalway) now known as 'Bentra' (current spelling). This townland borders the townlands of Ballycarry south-west and Forthill all of which are located immediately to the south of the village of Ballycarry (see Figure 4 and Table 1). It is conceivable therefore that James lived in the bawn in Ballycarry south-west, with William at Redhall, and that either the boundary of the townland of Bentra/Ballybantragh has since changed, or, that the sources are incorrect and attribute his address to the adjacent but incorrect townland. There is also quite a lot of evidence to suggest that townland names and boundaries were fairly fluid pre-nineteenth century and that the current boundaries in the area are only relatively recently set. Limited documentary records for the placenames for the town of Ballycarry and the townland of Leslannan/Forthill suggest that both have a terminus post quem in the early seventeenth century (see Section 2.2.4). There is also a suggestion at least, in the OS memoirs, that the townland boundaries in the area were then (i.e. 1830s) only lately fixed. Although circumstantial, this strand of evidence might be taken as additional, albeit faint support for the possibility that the new landowners, the Edmonstones, potentially made some changes in the layout of the land in the parish in the seventeenth century and also to the presence of a fort in the area which may possibly have lent its name to one of the 'new' townlands (i.e. Forthill).

If the enclosure was not built as a bawn by the Edmonstones, then a third option is that the fort could date to the years of upheaval and warfare following the 1641 rising. The Confederate Wars (1641-53) were a confusing period of conflict with Irish, English, Scottish Covenanter, Royalist and Parliamentarian armies, and various combinations of these, in action across Ireland (Ó Baoill 2008, 66). Many of the soldiers in these wars would have witnessed and experienced warfare, and its associated fortifications, on the Continent and may have replicated the general style in the construction of the many fortifications, earthworks and fieldworks that are documented in contemporary accounts of the period (Kerrigan 1980-1, 4). In 1648, Carrickfergus, which was under the command of General Munro and his troops who had pledged allegiance to the King, was taken in a surprise attack by a Parliamentary force led by Sir Robert Adair (Ó Baoill 2008, 66). Less than a year later in June 1649, the town was taken over again, this time by the Royalists after a short siege but a few months later it was back in the hands of the Parliamentarians (ibid.). It is possible that during these years of perpetual fighting that a garrison(s) or siege fort(s) was built in the hinterland of the harbour town, as at Ballycarry for example, by opposition forces intent on advancing on the town. A couple of Ulster forts, at Hillsborough, Co. Down and Belturbet, Co. Cavan, were probably built during this period (Gowen 1980, 249).

The fourth possibility is that it was constructed in the late 1680s when the struggle between the Catholic King James II and the Protestant William III of Orange arose. Artillery defences in some of the larger towns were strengthened at this time, as at Galway and Derry for example, and the movement of armies led to other locations being strengthened (Kerrigan 1980-1, 6). There are no known records for the earthwork fort at Fort William in north Belfast though its name would suggest that it might have been constructed during Williamite activity in the town (Gowen 1980, 252). Although considerably smaller that the fort at Ballycarry, it measures approximately 15m across and 25.8m from salient point to point of the diagonally opposing angular bastions. It also has a 'Z-plan' layout like Ballycarry (Jope 1960, 116). The seventeenth-century fort at Forthill in Enniskillen, with four corner spear-shaped bastions, was also built at this time (in 1689) and it was constructed with earthen or sod ramparts (ibid., 115). Jope (1960, 116) argues that small temporary forts were often needed during campaigns and he proposes that simple square earthworks, as were thrown up as battery emplacements during the Civil War in England, may also have been built in Ireland but that these have not been either studied or recognised. Ballycarry may be a candidate for such a fort which, if hastily built, briefly occupied and ultimately played a minor role in a campaign is unlikely to have received much attention in historical records. A succession of political and military incidents that were played-out over the early months of 1689 in counties Antrim and Down could have given rise to the construction of such a fort.

In January 1689 Protestant gentry concerned about the potential Jacobite threat in Ireland set up associations to provide for their own self-defence (Childs 2007, 34-7; Doherty 1998, 40). Several counties banded together such as Antrim and Down, and Armagh and Monaghan, and these associations were led by the 'Council of Five' also variously known as the 'Council of the North', 'Council of the Union' and 'Council of Protestant Gentlemen' (Childs 2007, 35; Nelson 1995, 24). The county associations appointed their own field officers and encouraged them to recruit volunteers and to seek private investment in the enterprise (Childs 2007, 35) and one of the prominent players in Antrim was Archibald Edmonstone, or 'Colonel Edmonston' of Redhall (Nelson 1995, 24; Childs 2007, 36). In 1688 Edmonstone, by command of the Council, intercepted a boat of provisions at Broadisland which was intended for the Lord Antrim's private family (McSkimin 1909, 487). In retaliation, the Earl threatened to burn Edmonstone's house (i.e. Redhall) though the Colonel had reportedly taken precaution and secured it with a garrison of a hundred men (ibid.). The Antrim association subsequently organised two attempted sieges on Carrickfergus in January and February of 1689 where the Lord Deputy of Ireland, the Earl of Tyrconnell's Jacobite troops were garrisoned (Nelson 1995, 24; Hill 1869, 276). The two sieges failed. In March of that year Tyrconnell mustered a Jacobite force under Richard Hamilton to head north and secure Ulster under King James' control (Doherty 1998, 40-1). The Council determined to contest this advance and on March 12th a battle was

fought at Dromore, the 'Break of Dromore', in which the Williamites were heavily defeated. Many Protestants subsequently fled to Scotland and England or retreated to Coleraine, Derry and Enniskillen (*ibid.*, 42). The Jacobites marched northwards to Coleraine and as the Williamites there held out they changed tack and moved instead westwards towards Derry. They crossed the Bann at Portglenone where Williamite troops, led by Colonel Edmonstone, had dug trenches in extremely wet, cold and windy weather and from which conditions Edmonstone contracted fever and died soon after (Doherty 1998, 44).

Following the first siege, Edmonstone wrote a letter to his son-in-law, dated 'Broad Illeamd Feby 6, 1689' (Nelson 1995, 24-5; Hill 1896, 276). He describes their then having eight companies of about 1000 men and he goes on to write that he "offered to mentaine the men in the adjacent places (i.e. Ballycarry), til they might have what they expected" (Nelson 1995, 25; Hill 1896, 276). Many of the men in these Companies were probably resident in the general area but it is also possible that a defensive fort or garrison was constructed on Edmonstones' land in or near Ballycarry to quarter and gather the men and arms. Such a fort would also potentially act as a defence for the Redhall estate and guard one of the routes northwards out of Carrickfergus and Belfast (Ballycarry was situated on the mail coach road from Belfast to Larne in the eighteenth-century at least if not earlier — Ó Direáin and McHugh 2010, 141). The fort could have been used in advance of one or both sieges on Carrickfergus and/or as a defensive post to which troops retreated following the defeat at Dromore. If Edmonstone had 1000 men at his command, as is claimed, men who reportedly dug numerous trenches, then it is not inconceivable that a fort such as Ballycarry could have been dug and earthen ramparts thrown up in a couple of days.

6 Conclusion

Geophysical surveying has identified a previously unknown and apparently undocumented fort or bawn in the townland of Ballycarry south-west. This is located within a scheduled enclosure of uncertain date and the two monuments do not appear to be related. The layout of the fort, square plan with two opposing corner bastions, is of a form that dates to the sixteenth or seventeenth century and unfortunately the excavation did not yield any finds that provided a tighter date range for its construction. The small-scale excavations conducted in 2009-2010 demonstrated that the fort was enclosed by an earth- and rock-cut ditch. No direct evidence for any internal features was found but the absence of brick, mortar and stone in the ditch fills, and the suggestive nature of the layering of the deposits within the ditch suggest it probably had an internal sod or earthen rampart which slumped, or was deliberately slighted, into the ditch after it went out of use. The late sixteenth and seventeenth centuries in Ulster were unsettled with much warfare and conflict giving rise to many scenarios where the construction of a fortified enclosure may have been deemed necessary. These various scenarios are considered in this report and the most likely options identified are that it was either built at the turn of the seventeenth century as a campaign fort during the latter years of the Nine Year War or as a bawn by James Edmonstone, or, that it was constructed during the Williamite wars, specifically the year of 1689, when the local landowner Archibald Edmonstone of Redhall was directly involved in the fighting and as a Colonel had troops of men in his command.

7 Recommendations for further work

7.1 Specialist work

No further specialist work is required for the finds recovered from the 2009-2010 excavations. The poor stratigraphical provenance of much of the material, the majority from the topsoil, renders the information of little archaeological value. The short notes here (Section 4) on the more informative of the finds – the pottery, clay pipes and flints – also indicate that they range in date from prehistoric times and to the seventeenth, eighteenth and nineteenth centuries.

7.2 Publication

It is recommended that an edited version of this DSR is written-up as a paper for submission to a peer-review journal for publication such as the *Journal of Conflict Archaeology*, *Journal of Post-Medieval Archaeology* or the *Ulster Journal of Archaeology*.

7.3 Further research

The conclusions drawn here are still speculative. Additional excavations of sections of the ditch with the excavation trenches stretching further into the interior could identify traces of internal ramparts or palisades if they survive. Excavations could also potentially yield coins or more tightly dateable finds that may at least identify a *terminus post quem* for the fort's construction. Unfortunately radiocarbon dating is unlikely to be helpful in identifying a date for the fort as the calibration curve 'plateaus' for the late sixteenth and seventeenth century. Samples dating to this period will therefore calibrate with a wide error margin.

A detailed geophysical survey within the interior of the fort, followed by targeted excavation may also help to determine what, if any, structures were built within the interior. Lastly, further detailed historical research could yield clues as to who may have been behind the fort's construction. Further research into the Edmonstone family archives for example, and a more detailed consideration of political and military activities in the area of east Antrim in the late sixteenth century could both be worthwhile.

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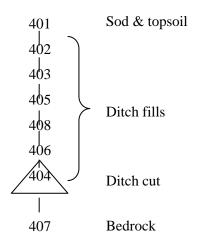
9 Appendices

Appendix 1: Context register

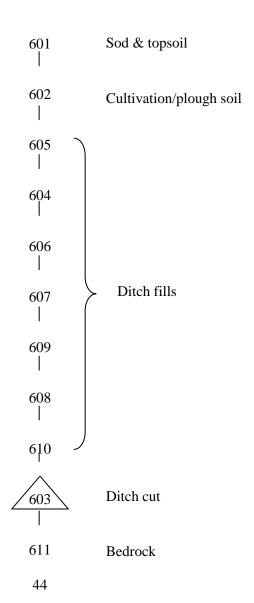
Trench	Context	Context type	Description
Trench 1	101	layer	sod/topsoil
	201	layer	sod/topsoil
Tuomah	202	layer	Cultivation/plough soil
Trench 2	203	fill	fill of pipe trench C.205: not excavated (exposed in plan)
_	204	pipe	rusted iron pipe 28-30mm in diameter
	205	cut	cut for pipe C.204; 0.21m wide: not excavated (exposed in plan)
Trench 3	301	layer	sod/topsoil
	401	layer	sod/topsoil
	402	layer	Cultivation/plough-soil
	403	fill	sandy clay deposit
Trench	404	ditch cut	U-shaped ditch running approx. east-west
4	405	fill	stony fill
	406	fill	basal fill
	407	bedrock	basaltic
	408	fill	Main fill of ditch; sandy clay (similar to C.403)
Trench 5	501	layer	sod/topsoil
	601	layer	sod/topsoil
	602	layer	Cultivation/plough-soil: coarse mid-brown loam with stone and gravel
	603	ditch cut	broad U-shaped ditch with gently sloping sides; approx. 1.5m in depth and >2.3m in width
	604	fill	loose, coarse black coal/clinker deposit: fill of C.603
	605	layer	stony layer with stones and lumps of clay
Trench	606	fill	mid-brown loam with gravel and stones: fill of C.603
6	607	fill	compact sticky greyish-brown clay with lumps of coal: fill of C.603
	608	fill	sterile orange-brown sandy loam
	609	lens	localised spread of mottled loam with burnt bone and charcoal
	610	fill	basal fill of ditch C.603; natural accumulation of weathered bedrock, primary silting
	611	bedrock	basaltic

Appendix 2: Harris Matrices

Trench 4



Trench 6



Appendix 3: Catalogue of finds

Miscellaneous finds

Trench	Context	Material	Description
1	topsoil	slate	4 pieces of slate with greatest dimensions of 30mm-60mm. One piece has a straight, possible artificial edge but otherwise they do not display any signs of having been worked
1	topsoil	corroded iron	long corroded-iron nail (>165mm in length; broken at tip) with irregular ovoid-shaped head (21.9mm x 16.5mm). Rectangular in cross-section and tapering slightly from 14.2mm x 11.7mm below nail-head, to 8.3mm x 8mm at nail-tip
1	topsoil	copper alloy	Rounded cast copper-alloy object (tap fitting?) with central perforation. 60mm (greatest length) x 19.7mm (greatest thickness)
2	topsoil	glass (bottle)	fragment of blue bottle glass, with slight curvature, 49mm x 32mm and 4.7mm thick
2	topsoil	burnt clay - brick?	amorphous lump of pitted, light-orange burnt clay (51mm x 30mm) with cream-coloured clay mottles/lenses
2	topsoil	red brick	red brick fragment, 40mm x 24mm
2	topsoil	corroded iron	sub-rectangular piece of corroded iron, 55.7mm x 26mm, and 10.4mm thick
2	topsoil	stone	small rounded stone (30mm x 21.4mm) with sub-circular perforation (artificial?)
3	topsoil	bone	fragment of cattle molar
3	topsoil	glass (window)	fragment of window glass, 17.4mm x 11.6mm and 1.6mm thick. Transparent with slight green tinge
4	topsoil	glass (window)	fragment of window glass, 10.7mm x 16.2mm, and 1.7mm thick. Transparent with slight green tinge
4	topsoil	glass (vessel)	fragment of clear glass with slight curvature (vessel glass?). 17.5mm x 11.6mm, and 1.2mm thick
4	topsoil	red brick	fragment of red brick, or tile, with one flat, burnished surface. 58.9mm x 52.4mm and 26.2mm thick
4	topsoil	burnt clay - brick?	3 small irregular-shaped fragments of light-orange coloured burnt clay (same as recovered in Trench 2)

Appendix 3 continued

Trench	Context	Material	Description
5	topsoil	slate	fragment of slate, 79.6mm x 48.2mm, and 9.1mm thick. No signs of working
5	topsoil	red brick	2 fragments of red brick 47.5mm x 32mm, and 29.5mm x 18mm
5	topsoil	glass (bottle)	fragment of thick (8.7mm) green bottle glass 35.4mm x 26.4mm
5	topsoil	glass (window)	fragment of clear window glass, 16mm x 16.8mm, and 1.8mm thick
6	topsoil	glass (bottle)	fragment of thick (8mm) green bottle glass, 27.8mm x 26.6mm

FIGURES

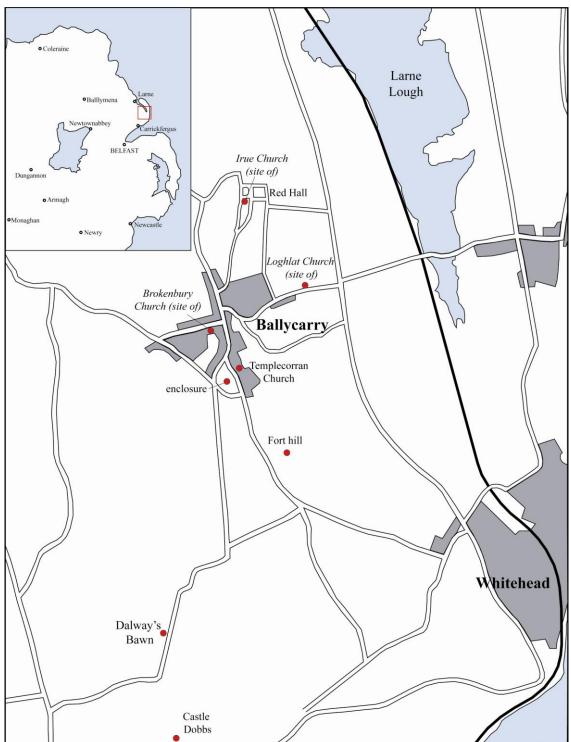


Figure 1 Map showing the location of Ballycarry and archaeological sites in the vicinity of the village including the possible mound or enclosure on Fort Hill (ANT 047:038), the tower-house on site of medieval church of Irue (ANT 047:004), the site of a medieval church and graveyard of Loghlat (ANT 047:008), the site of medieval church and graveyard of Brokenbury (ANT 047:009), Templecorran church (ANT 047:010) and the ecclesiastical enclosure and seventeenth-century fort (ANT 047:068).

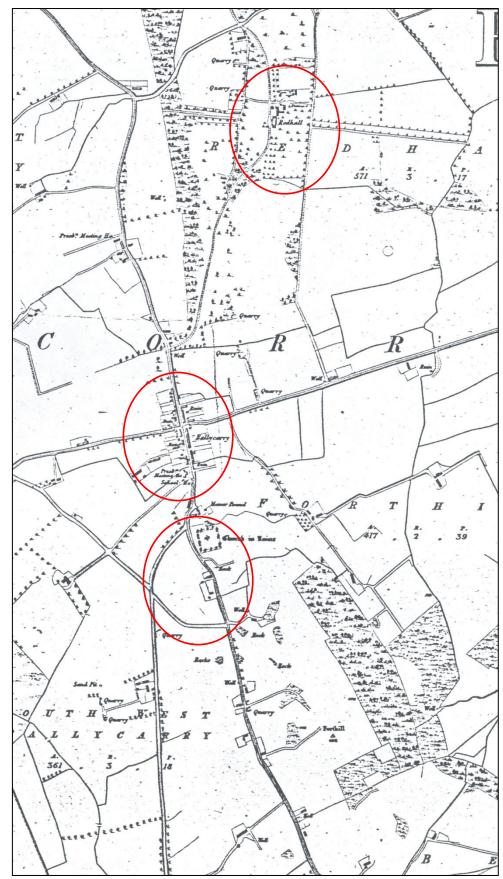


Figure 2 Detail from the 1834 OS 6`map (Antrim Sheet 47) showing Ballycarry village, the scheduled enclosure to the south of it and Redhall demesne to the north.

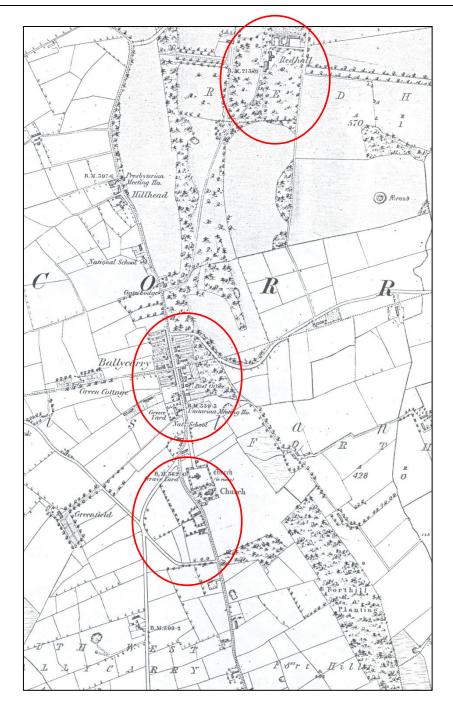


Figure 3 Detail from the 1858 OS 6`` map (Antrim Sheet 47) showing Ballycarry village, the enclosure and Redhall demesne ().

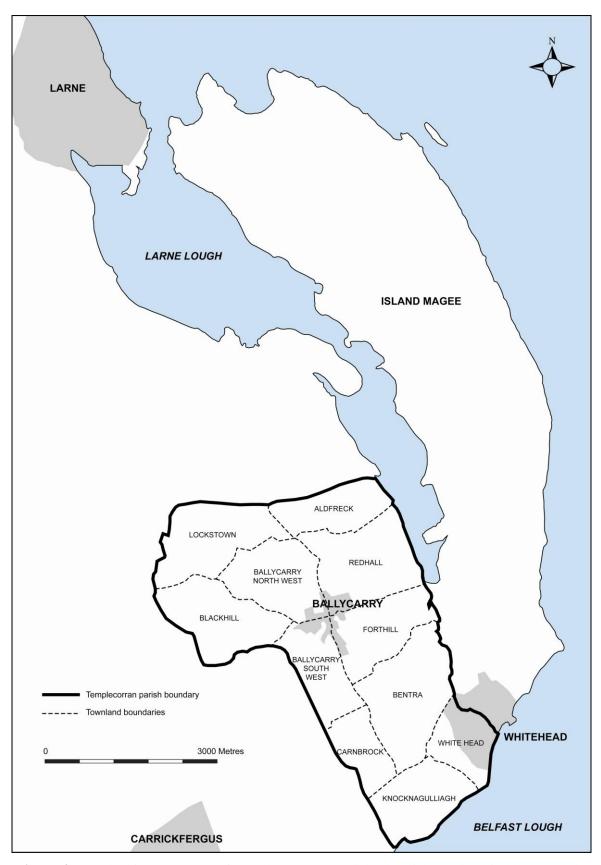


Figure 4 Map showing the extent of Templecorran/Broadisland parish (outlined in black) and the townlands within it (boundaries demarcated with dashed lines). See Table 1 for list of current and former townland names in the parish.



Figure 5 Results of the 2008 magnetometry survey displayed as a greyscale image with possible archaeological features highlighted in colour (DVAS 2008). The possible seventeenth-century fort is highlighted in yellow in the bottom-right quadrant.

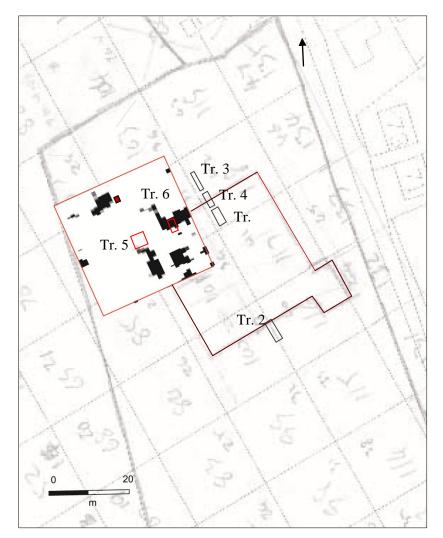


Figure 6 Approximate locations of the excavation trenches and the magnetometry survey results recorded by QUB in 2009 (within red box) overlaid on a sketch plan of the site (supplied by DVAS).

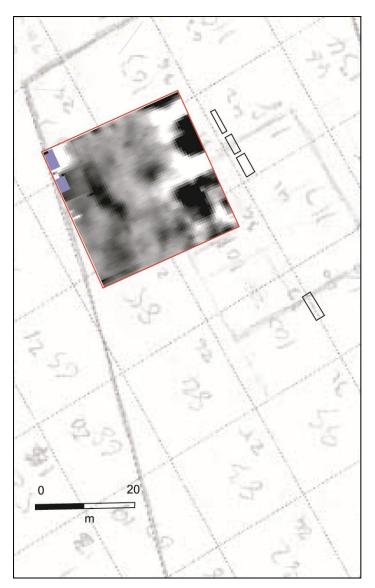


Figure 7 Results of the QUB soil resistivity survey carried out in 2009 (overlaid on the DVAS sketch plan, as per Figure 6).

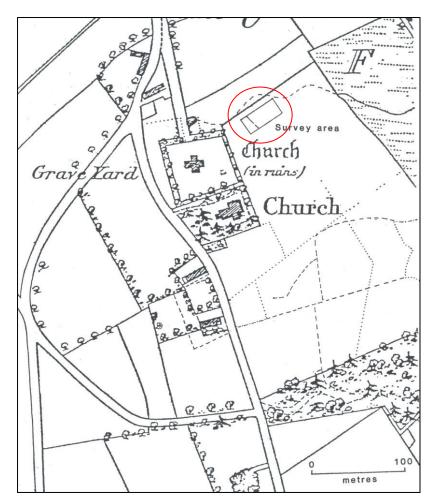


Figure 8 Reproduction of the 1858 OS 6" map showing the location of Hartwell's survey area (Hartwell 1990, 27).

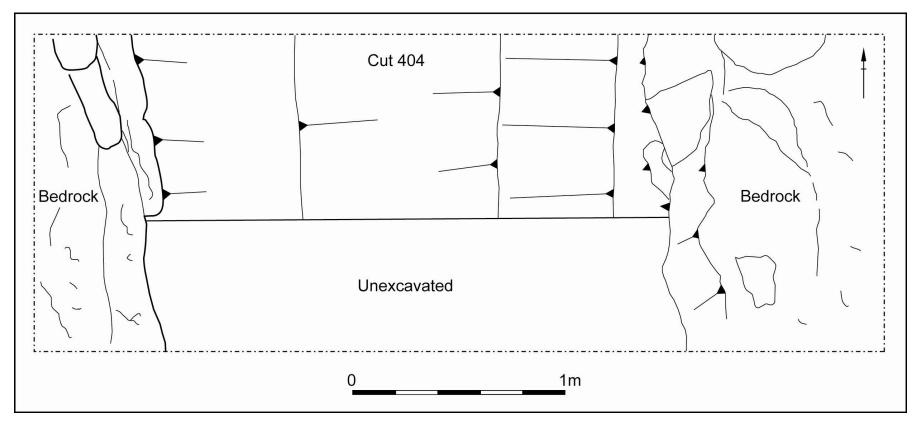


Figure 9 Post-excavation plan of Trench 4 (scale 1:20cm).

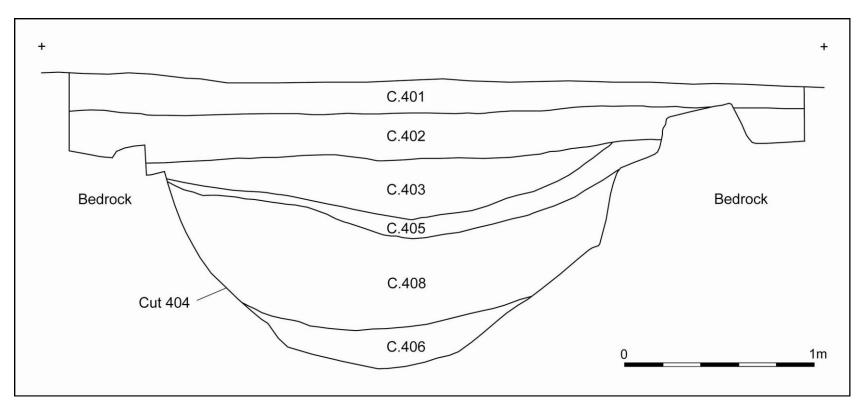


Figure 10 East-facing section of Trench 4 (scale 1:10cm).

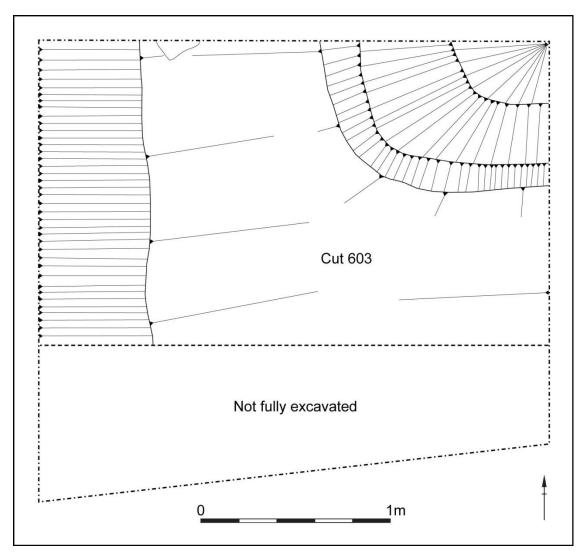


Figure 11 Post-excavation plan of Trench 6 (1:20cm).

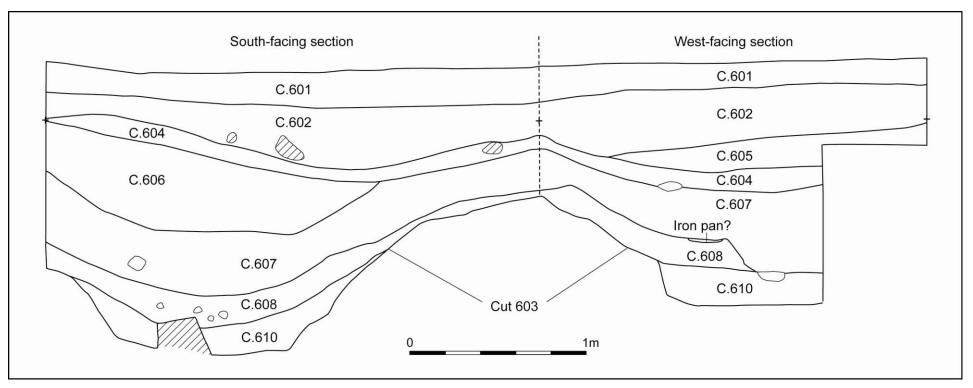


Figure 12 Post-excavation contiguous section-drawing of the south- and west-facing sections of Trench 6 (scale 1:10cm).

PLATES

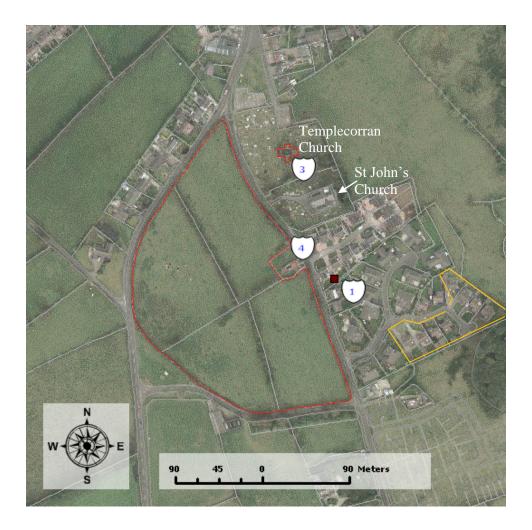


Plate 1 Google Earth aerial photo showing the scheduled enclosure highlighted in red ('4' =ANT 047:068), Templecorran church and graveyard ('3' = ANT 047:010) and the location of previous excavations; the yellow line marks the area investigated in 1994 where a late Neolithic bank and ditches and a medieval wall were found (Crothers 2000) and '1' marks the location of a dairy (IHR = 0712600000) which was investigated in 2005. The image was downloaded from NIEA Mapviewer http://maps.ehsni.gov.uk/MapViewer/Default.aspx# (09.08.11).



Plate 2 Aerial photo of Ballycarry village (centre top of photo) and the curvilinear scheduled enclosure to the south of it, marked by roads to the left (west) and crop-marks to the right (east) taken in 1961 (No. 26860. Crown Copyright).

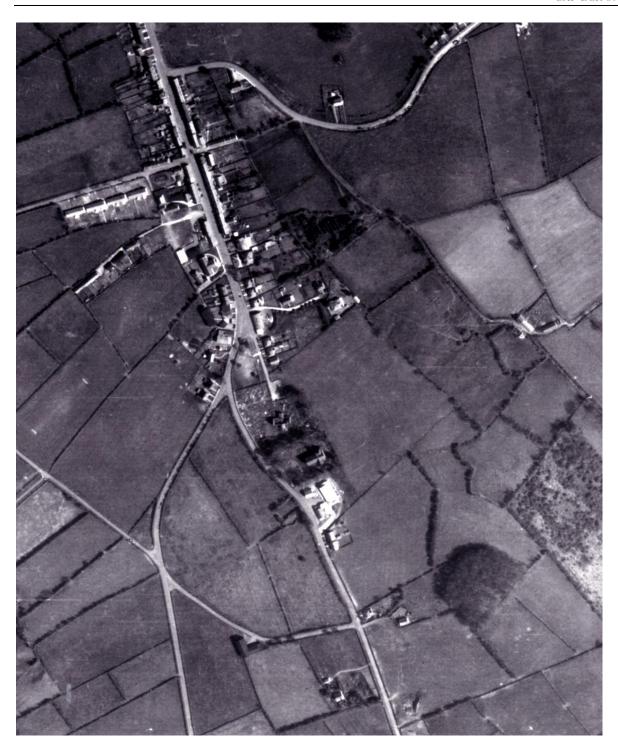


Plate 3 RAF aerial photo of Ballycarry village and the scheduled enclosure, taken in November 1951 (QUB map library).



Plate 4 Post-excavation photo of Trench 1 (facing south).



Plate 5 Southern end of Trench 1 showing patches of subsoil overlying the bedrock.





Plate 7 The pipe (C.204) and linear cut (C.205) at the north-western corner of Trench 2.



Plate 8 Post-excavation photo of Trench 3 (facing north).



Plate 9 A seventeenth-century clay tobacco pipe bowl recovered from the topsoil (C.301) in Trench 3.



Plate 10 An eighteenth-century clay tobacco pipe bowl recovered from the topsoil (C.301) in Trench 3.

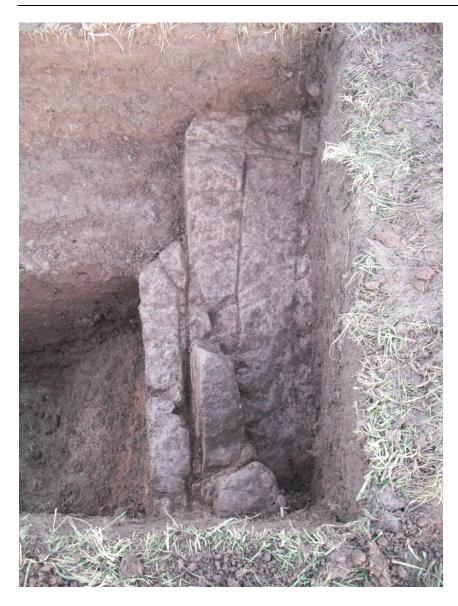


Plate 11 Fractured surface of the bedrock at the southern side of the ditch, C.404, in Trench 4.



Plate 12 Post-excavation photo of the rock-cut ditch, C.404, in Trench 4 (facing south).



Plate 13 Post-excavation photo of Trench 4 (facing north).



Plate 14 A mid nineteenth-century clay tobacco pipe bowl, recovered from the topsoil (C.401) in Trench 4 with an impressed stamp of 'cock of the north' on the bowl.



Plate 15 East-facing section of the ditch, C.404, in Trench 4.



Plate 16 Trench 5 on removal of the sod and topsoil (C.501), (facing south).

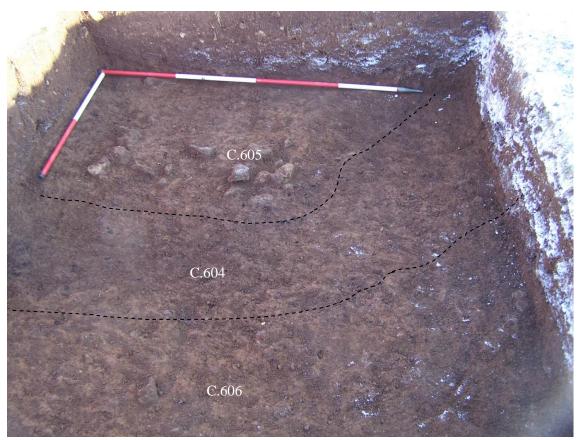


Plate 17 Trench 6 (looking east) after removal of C.602 showing the surface of the clinker layer, C.604, i.e. the upper fill of ditch, C.603.



Plate 18 Post-excavation photo of Trench 6 (looking northeast).



Plate 19 Post-excavation photo of the ditch, C.603, in Trench 6 (facing north).