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



Data Structure Report No. 85 (preliminary report)

Archaeological Excavations at Quoile Castle, Co. Down

Licence number AE/ 11/ 65

On behalf of





Archaeological excavations at Quoile Castle, Co. Down Preliminary report submitted to NIEA

Ruairí Ó Baoill

CAF DSR No. 85

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Excavations at Quoile Castle, County Down (NISMR Dow 031: 009; AE/11/65)

1 Summary

In May 2011 The Northern Ireland Environment Agency: Built Heritage (NIEA) requested that the Centre for Archaeological Fieldwork, School of Geography, Archaeology and Palaeoecology, Queen's University Belfast (CAF) carry out a small excavation at Quoile Castle, Co. Down (NISMR Dow 031:009; grid reference J4963 4701; excavation licence number AE/ 11/ 65). The castle is in State Care.



Figure 1. Quoile Castle, County Down. Site Location map.

The excavation at Quoile Castle was carried out under the direction of Ruairí Ó Baoill. The work took place from 10th-18th May 2011, in the southern chamber of the first floor of the castle, directly over a ground floor vaulted-arch (Figures 5 and 6). The investigation was carried out to examine the nature and condition of the vault roof and to inform conservation and improved drainage in this part of the castle. Another objective of the excavation was to examine the wall footings of the dividing wall that currently separates the northern and southern chambers on the first floor of the castle, to see if this wall was founded on an earlier one. Lastly, the excavation was also carried out in the

hope of recovering dating evidence from the construction period of the castle to help better date the monument. Excavation showed that there were three main dumped layers within the haunches of the vault and below the modern floor level of the first floor of the castle. Finds included pottery from the late-Medieval period along with animal bone, slag, clay pipe stems and cut stone. A very large crack in the vault was also uncovered that may be the result of subsidence due to the founding of the castle on the soft clays of the Quoile flood plain.

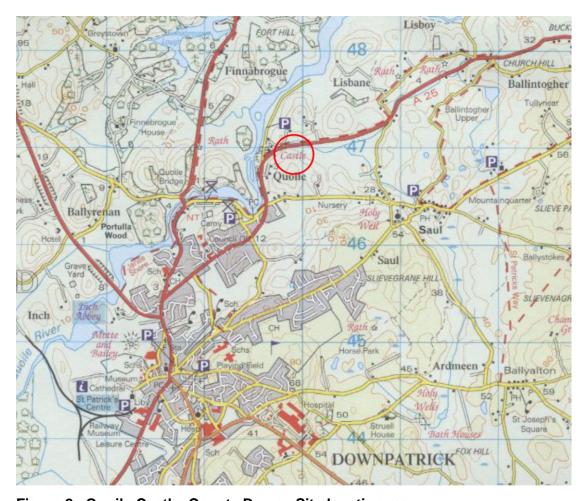


Figure 2. Quoile Castle, County Down. Site location map.

2 Introduction and Background

2.1 General

2.2 Historical background

Quoile Castle is a tower house on the southern bank of the River Quoile, approximately 800m downstream from Quoile Quay and roughly one mile north-east from the town of Downpatrick (Figures 1 and 2).

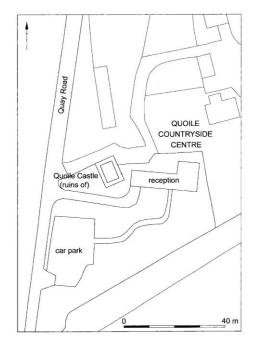


Figure 3. Quoile Castle, Co. Down. Detailed location map.

The castle is constructed of split stone rubble with sandstone dressings. It is rectangular in plan. Although in a ruinous condition, it probably originally contained three floors and an attic. The castle contains two chambers at ground floor level, each containing a stone vault, and many small gun loops. Both the first and second floors have fireplaces. Access is gained to each level by a straight staircase in the wall thickness, located in the east wall for the first floor and in the north wall for the second floor. A detailed description of the monument is given in the Archaeological Survey of County Down (1966, 247-248; Plates 59, 61, 62, 64; Figure 162).

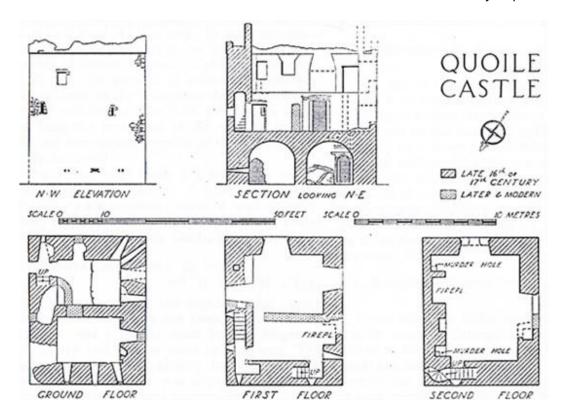


Figure 4. Plans and elevations of Quoile Castle, Co. Down, from *An Archaeological Survey of County Down* (1966, 247, Figure 162).

Little is known about the origins of the Quoile Castle. The castle was originally known as *Casllancoyll*. Based on its architectural details, the tower house is conventionally dated to the later sixteenth-century, though it is not illustrated on any sixteenth-century maps. Seven late-Elizabethan silver sixpences (the latest dating from 1593) found during conservation works at the castle in 1986 (Hamlin and Lynn 1988, 97, Figure 99) may suggest a late-sixteenth century date.

In 1604, at the end of the Nine Years' War, an English soldier, Richard West, was in residence at Quoile Castle and the West family were connected with the castle well into the eighteenth century. The castle may have been occupied into the early-nineteenth century and the structure seems to have been in good order into the twentieth century. However, a note in the *Ulster Journal of Archaeology* (Anon 1907, 192) stated that the castle 'is in imminent danger of crumbling to ruin. At present there are great rents in the walls, and these go on widening'.



Plate 1. Quoile Castle, Co. Down. The west and south walls during conservation work, May 2011.

A Welch photograph from *circa* 1900 shows the castle clear of ivy with render on the masonry visible (Plate 2). The photograph also shows a crack in the west wall that later was the cause of the later collapse.

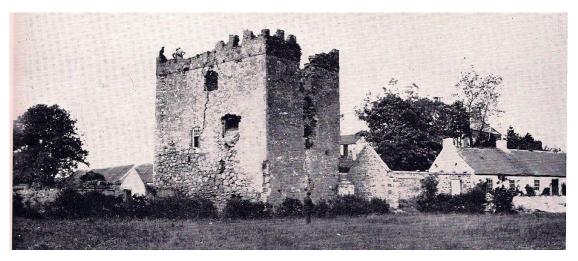


Plate 2. Quoile Castle, Co. Down. The Welch photograph from *circa* 1900.

In 1977, the south-west corner of Quoile Castle finally collapsed. The damage was repaired and conservation work carried out after the Castle was brought

into State Care in 1984.

In the early days the castle was surrounded on two sides by tidal water, which would have come up to the walls at Spring tide. However, since the installation of the Quoile Tidal Barrier in 1957, two miles downstream at Hare Island, this no longer happens.

2.3 Architectural detail in the southern chamber

There are substantial windows in both the south and east walls of the southern chamber. A wall dividing the first floor of the castle into the northern and southern chambers constitutes the north wall of the southern chamber. At the north-east of the southern chamber is a doorway that allows access between the two chambers. Part of west wall of the castle had collapsed in 1977 and excavation uncovered evidence of the conservation and restoration work that had taken place then to stabilise and make safe this part of the monument when it came into State Care in the 1980s. In the south-west of the southern chamber there was a ring of concrete and the vault at this point is cemented to the rebuilt west wall.

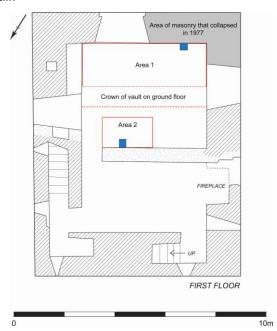


Figure 5. Quoile Castle, Co. Down. Plan of the first floor (after ASCD 1966) showing the areas within the southern chamber that were originally scheduled for excavation in 2011 (marked as Area 1 and Area 2) and the two small NIEA investigative trenches carried out on 5th May 2011 (marked in blue).

3 The 2011 excavation

The excavation took place within the southern chamber of the first floor of Quoile Castle, directly over the roof of a ground floor vaulted arch. Initially two areas within the southern chamber, both north and south of the crown of the vault, were designated for investigation but this was later changed to cover virtually the whole of the interior (Figure 5).

3.1 Methodology

All the archaeological features and strata uncovered during the 2011 CAF excavation were excavated and recorded in conjunction with the guidelines laid out in the Northern Ireland Environment Agency's *Excavation Standards Manual* (2nd edition, 2004). All archaeological features were excavated and recorded using the standard context recording method. Individual features were planned (scale 1:10 or 1:20 where appropriate), both prior to, and following excavation. In addition to the photography and illustration, the principal site records consist of context sheets augmented by a site diary. A separate register of finds recovered was also maintained.

3.2 Archiving

The finds from the excavation and the excavation archive are all housed in the Centre for Archaeological Fieldwork, School of Geography, Archaeology and Palaeoecology, Queen's University Belfast.

3.3 Credits and acknowledgements

The writer would like to thank Ruth Logue, Dr Harry Welsh and Grace McAllister, all from CAF, who worked on the excavation.

Ruth Logue, Patricia Ó Baoill and Sapphire Mussen prepared the illustrations used in this report and Grace McAllister compiled the appendices.

Liam McQuillan, Senior Inspector, NIEA.

Darren Sharratt, Pat and Des, NIEA Quoile Castle.

3.4 Account of 2011 excavation

The internal area of the southern chamber is approximately 18.5m² (4.2m, north-south, by 4.4m, east-west). Apart from two small baulks along the eastern (2.0m by 0.9m) and northern walls (2.5m by 0.5m) that were left for health and safety reasons, the whole of the southern chamber was archaeologically excavated down to the surface of the vault roof. There was a maximum of 0.7m depth of stratigraphy recorded between the modern floor surface of the southern chamber and the heavily mortared roof of the ground floor vault. In the south-west corner, where collapse had occurred in the 1970s, the gap between the haunch of the vault and the south-eastern wall was filled up initially with large stones and heavily-mortared to bond the vault roof to the castle walls. Above this uneven, but roughly level surface, were dumped deposits of clay, midden and construction material.

The deposits excavated to the south of the vault haunch (originally designated Area 1) were numbered Contexts 1-8, and those to the north of the haunch (originally designated Area 2) were numbered Contexts 101-108. After the whole of the chamber was opened up for archaeological investigation it was possible to equate some of these contexts and these are discussed in the following text.

3.4.1 The vault

The external surface of the vault roof (C.7/C.107) was constructed of large stones set on end in a heavily-mortared base, and in irregular rows. When uncovered on the excavation the surface was very jagged in appearance and when originally constructed it was clearly not meant to be seen. The mortar on the vault roof was very crumbly and loose.

The excavation showed the roof to be mostly intact, apart from a large crack that runs up the middle of the crown, in a roughly north-south alignment, almost to the western side of the window in the south wall.

Above this primary construction layer were a series of dumped deposits, introduced to fill up the void between the haunch of the vault and the walls of the castle.

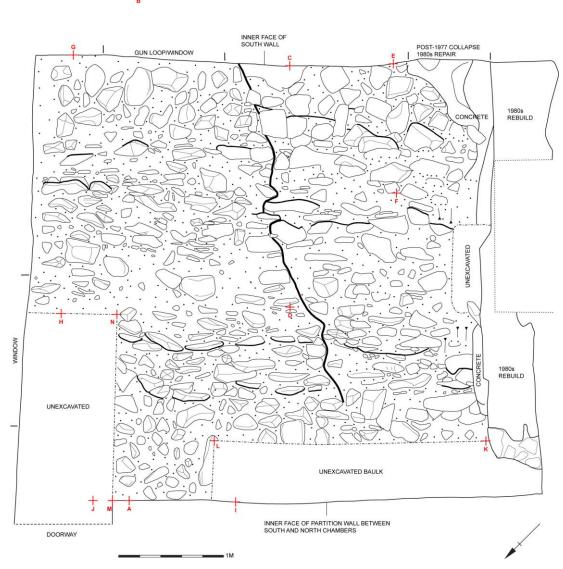


Figure 6. Quoile Castle, Co. Down. Plan of the southern chamber, post-excavation, showing the location of drawing points.



Plate 3. Quoile Castle, Co. Down. The southern chamber. Exterior surface of the first floor vault fully exposed after excavation. The crack in the vault roof is visible, running left to right across the middle of the photograph. From the west.

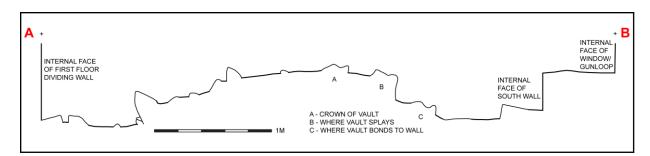


Figure 7. Quoile Castle, Co. Down. West-facing profile across the roof of the first floor vault.

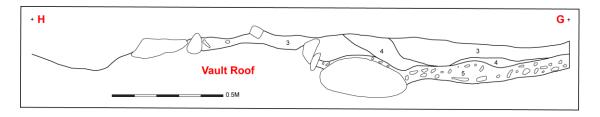
3.4.2 Area 1. Dumped deposits above the vault

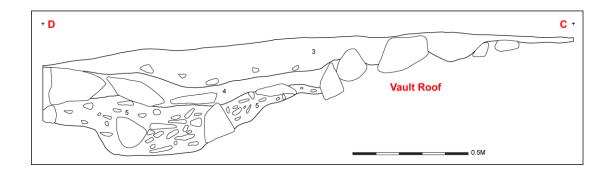
In the southern half of the chamber and directly above the mortared external surface (C.7/ C.107) of the vault roof was a deep deposit of creamy-brown mix of clay, sand, mortar containing many fragments of stone and slate (C.5). This was clearly a dump of construction debris. Animal bone was recovered from it.

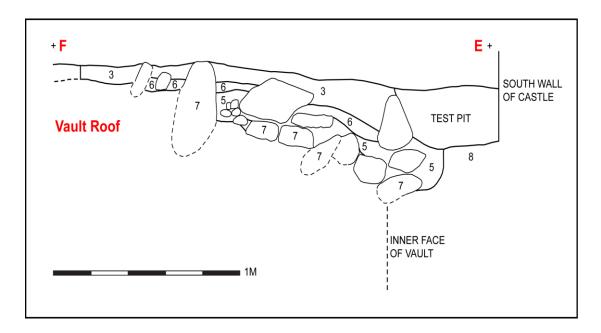
In the south-east of the chamber was a deposit of mottled clay sand with charcoal (50%), with some small stones and charcoal (C.4). From this were recovered fragments of bone, shell, slate, lead and iron.

In the south-western half of the chamber above C.5 was a deposit of loose dark brown clay containing rounded stones, charcoal, small stones and gravel. (C.6). It had the appearance of a burnt deposit (though not burning *in situ*), dumped from elsewhere.

Above deposits C.4 and C.6 was a compact, creamy-brown clay containing sand, fragments of red brick and charcoal (C.3). Animal bone and pottery fragments were recovered from it.







Figures 8a-8c. Quoile Castle, Co. Down. West-facing sections across the roof of the vault (see Figure 6).

3.4.3 Area 2. Dumped deposits above the vault

In the northern half of the chamber and directly above the mortared external surface (C.107/C.7) of the vault roof was a deposit of loose grey-brown stony layer containing slate, shale and stone (C.106). Out of this material were recovered fragments of animal bone and perforated slate roof tile. Above this was a thick deposit (*circa* 0.30m deep) made up of thin lenses of mixed grey

clay and mortar containing many stones, fragments of mortar along with pieces of red brick, slate and charcoal (C.103). It appeared to represent different small episodes of dumping over a short period of time.

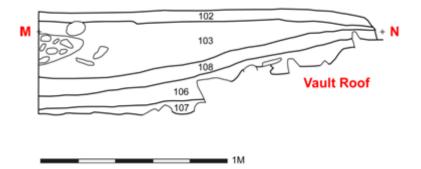


Figure 9. Quoile Castle, Co. Down. West-facing section of the unexcavated baulk left along the eastern wall of the castle.

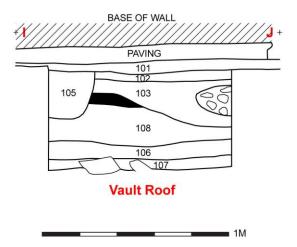


Figure 10. Quoile Castle, Co. Down. South-facing section under the modern cross wall that divides the first floor of the castle into two chambers.

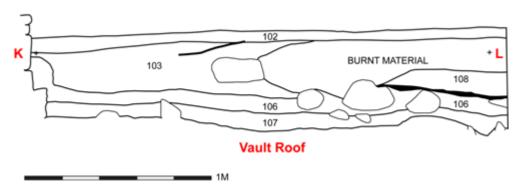


Figure 11. Quoile Castle, Co. Down. South-facing section of the unexcavated baulk left along the northern wall of the castle.

3.4.4 The southern chamber: modern strata

Above all of the dumped deposits in the southern chamber described above was a layer of grey gravel (dust and small stones; C.2) and a concrete surface (C.1). The first was a bedding layer and the second a surface for the stone-slabbed floor in the southern chamber that probably date to the twentieth century.

The latest features investigated were the two small test trenches excavated by NIEA on Thursday 5th May 2011 in advance of the CAF excavation commencing. Only one of these was recorded during the CAF excavation, in Area 2 (Figure 10). The cut for the test trench (C.5; backfill C.4)) extended down as far as deposit C.8.

3.4.5 The dividing wall between the northern and southern chambers

The partition wall between the northern and southern chambers of the first floor was investigated during the 2011 excavation. The wall had no foundation trench and was not founded on any earlier masonry construction. It was discovered to be set on a base of stone slabs and cement and, therefore, appears to be a modern construct, not part of the original castle building.



Plate 4. Quoile Castle, Co. Down. First floor, southern chamber. Photograph of the fully-excavated vault roof. In the top right of shot, the dividing wall between the northern and southern chambers is clearly shown not to be founded on either early deposits or an earlier wall. Shot taken from south,

4 The finds

A relatively small number of artefacts were recovered from the dumped deposits above the vault roof of the first wall.

4.1 Animal bone

A total of 1.363 kilos of animal bone were recovered from eight contexts.

4.2 Pottery

There was a total of five sherds of pottery recovered of probable sixteenth- and seventeenth-century date. A sherd of late-Medieval pottery and another of (?German) stoneware pottery were found in Context 3 from the south of the chamber while a fragment of Bellarmine stoneware pottery along with a fragment of black-glazed earthenware pottery came from the corresponding

deposit in the north of the chamber (C.103). A fifth pottery sherd, from an unstratified context, is of probable seventeenth century date.

4.3 Clay tobacco pipe

A total of five small undiagnostic stem fragments of clay tobacco pipes were recovered from the 2011 CAF excavation.

4.4 Red brick

Three fragments of red brick were recovered from two contexts (C.5, C.103 and unstratified). These appeared to be hand-made bricks and at least one had straw or reed marks, where the wet bricks had been left down to dry, along with mortar adhering to one surface. The earliest dated use of red brick in Ulster is from the mid- sixteenth century, in the modified gun loops from Carrickfergus Castle. It is not inconceivable that the bricks from Quoile Castle are sixteenth century date and were originally used in a building associated with the tower house. However, their re-use and re-deposition in the dumped construction debris deposits used to fill up the space above the haunch of the vault roof means that they must pre-date the construction of the castle.

4.5 Slate

A total of nine fragments of roofing slate, most of them perforated, were recovered from three of the dumped deposits investigated on the excavation. Like the red brick, these may have come from an earlier building or else were damaged examples thrown away during the construction phase of the castle.

4.6 Stone

Ten pieces of stone, some of them worked, were recovered from seven contexts on the excavation.

4.7 Metal work

Fragments of iron and lead, including a pin and a metal strip were recovered from three contexts. Samples of copper and metal slag were also recovered from two contexts.

4.8 Shell

A total of five samples of shell, weighing 76.3 grams, were recovered from five contexts on the excavation.

4.9 Flint

One flint core, of probable Neolithic date (Brian Sloan *pers. comm*), was found in C.106.

5 Discussion

The 2011 excavation successfully uncovered the roof of the ground floor vault below the southern chamber and allowed examination of the construction technique. It also facilitated conservation work and improved drainage in this part of the monument to be carried out in tandem with archaeological recording. The variety of dumped deposits of both burnt material and construction debris that filled in the gap between the haunch of the vault roof and the castle walls suggests that this process was done haphazardly, and not in a single act with deliberate choice of preferred infill material being used.

The small amount of pottery retrieved from the dumped layer still leaves the question of the date of the construction of Quoile Castle, as yet, unanswered. A fragment of late-Medieval pottery and a fragment of (?German) stoneware pottery from C.3, from the south of the chamber might suggest a late-sixteenth century AD date for the construction of the vault roof and the infilling around it necessary to establish a floor surface in the southern first floor chamber. However, the fragment of Bellarmine stoneware pottery along with a fragment of black-glazed earthenware pottery from the corresponding deposit in the north of the chamber (C.103) suggests at least a seventeenth-century date. How many floor surfaces have been constructed and then replaced within the southern chamber over the centuries and the level of disturbance to the original infilled strata is unknown. The only other sherd of pottery from the 2011 excavation, from an unstratified context, probably dates to the seventeenth century.

The author is not aware of any other published accounts of archaeological excavations of tower house vaulted roofs, so comparisons with other similar sites is, at this point in time, difficult to make.

6. Conclusion

The excavations carried out in 2011 at Quoile Castle, Co. Down uncovered important new strands of evidence about the castle, regarding the method of construction of the ground floor vaults and the material culture associated with its inhabitants. However, without further specialist analysis of the finds recovered from the 2011 excavation, it has not yet been possible to tie down closely the construction date of this part of Quoile Castle.

7 Recommendations for further work

7.1 Specialist work

The variety of finds recovered from the 2011 CAF excavation at Quoile Castle, Co. Down includes ceramics, clay pipe, animal bone, hand-made red brick, perforated slate, metal work, shell, and stone, all of which will require specialist reports to be carried out.

7.2 Publication

The excavation of the first floor vault roof under the southern chamber of the first floor of Quoile Castle has uncovered important new evidence of construction techniques of tower house vaults. Given the rarity of such an archaeological investigation it is strongly suggested that full publication of the excavation take place in the *Ulster Journal of Archaeology*.

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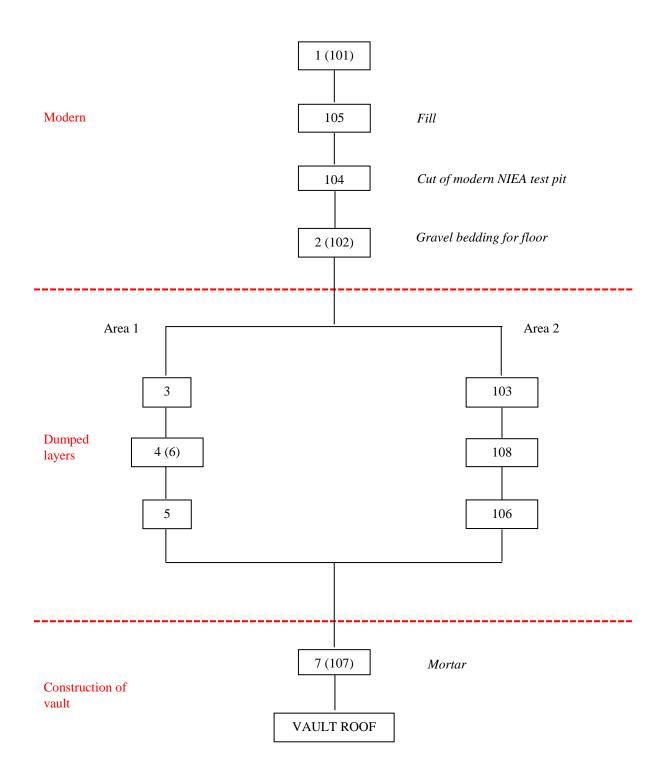
9 Appendices

Appendix 1: Context Register

Context No.	Description	Interpretation
	Area 1	
1	Two sequential layers of pinky salmon coloured cement.	Modern base below the modern flagged floor surface in the southern chamber. Same as C.101
2	Grey gravel (dust and small stones)	Bedding for cement and flagged stone floor of southern chamber. Same as C.102
3	Compact creamy brown clay. Contained small stones, sand, fragments of red brick and charcoal.	Dump deposit. Fill of haunch of vault in southern half of chamber.
4	Mottled clay-sand mix. High charcoal content, small stones and gravel inclusions.	Dump deposit. Fill of haunch of vault in south-eastern half of chamber.
5	Creamy- brown mix of clay, mortar, stone, slate, sand.	Dump deposit. Construction debris.
6	Loose dark brown clay.	Dump deposit. Fill of haunch of vault in south-western half of chamber.
7	Upper surface of vault roof. Large uncut stones, inserted on end set in a heavy mortar base and giving a very ragged appearance. The mortar bonding was very loose when uncovered and was thus given as context number. Same as C.107.	Roof of first floor vault. Covered over by dumped deposits to hide from view and facilitate the construction of a floor within the chamber above it.
8	Wall	Modern rebuild (1980s) of the collapsed portion of the south wall of castle.
	Area 2	
101	Cement base for stone flagged floor.	Modern surface in castle. Same as C1.
102	Gravel bedding for stone flagged floor.	Modern. Below C.101. Same as C.2.
103	Thick deposit of compact grey clay and stone. High percentage of degraded mortar, red brick, slate, stone, mortar. Represents episodes of dumped construction debris.	Fill of haunch in southern half of chamber.
104	Cut. For test trench.	Modern NIEA test pit. May 5 th 2011.
105	Fill	Fill of modern NIEA test pit, investigated on May 5th 2011.
106	Loose grey-brown brown clay, containing slate, stone. Similar to C103 but darker in colour and contained less mortar.	Dumped deposit in southern haunch of the vault.
107	Upper construction surface of vault. Same as C.7	Large uncut stones, inserted on end in mortar and in rows. Heavily mortared. Would have been covered over by floor of chamber.

108	Wall.	1970s rebuild after collapse of
		part of southern wall.

Appendix 2: Harris Matrix



Appendix 3: Finds Register

Animal bone

Context	Area	Description	Weight
No.			
003	1	Animal bone	89.1
004	1	Animal bone	341.1
005	1B	Animal bone	517.8
006	1B	Animal bone	62.9
103	2(ext)	Animal bone	131.7
106	2(ext)	Animal bone	209.7
108	2	Animal bone	6.3
Unstratified	-	Animal bone	4.5

Pottery

Context No.	Area	Description	Quantity	Weight
003	1	(?German) stoneware and late- Medieval (?local)	2	46.3
103	2	German stone ware & black glazed pottery	2	27.2
Unstratified	-	Unsorted	1	3.4

Metalwork

Context No.	Area	Description	Quantity	Weight
003	1	Pin	1	0.2
003	1	Lead	2	5.8
004	1	Iron work	4	201.2
005	1B	Metal object	-	38.8
103	2	Metal strip	1	0.9

Claypipe

Context No.	Area	Description	Quantity	Weight
005	1B	Clay pipe stem	1	4.3
006	1B	Small fragment from sample No. 2	1	
103	2	Clay pipe stem	2	2.6

Shell

Context	Area	Weight
No.		
003	1	28.8
004	1	14.6
005	1	25.7
006	1B	1.9
106	2(ext)	5.3

Slate and roof tile

Context No.	Area	Description	Quantity	Weight
004	1	Roof slates (sample #2)	5	3680.2
103	2	Perforated slate	1	41.1
103	2	Perforated roofing tile	1	1870.7
106	2	Perforated slate	1	30.1
Unstratified	-	Perforated slate	1	230.8

Brick and stone objects

Context	Area	Description	Quantity	Weight
No.				
003	1	Cut stone	1	941.1
004	1	Burnt stone	1	1305.8
005	1B	Stone	3	489.2
005	1B	Stone floor tile	1	1726.4
005	1B	Brick	1	205.3
103	2	Brick	2	1772.5
103	2	Cut stone	1	381.1
103	2	Cut stone	1	13.9
106	2(ext)	Cut stone	1	612.9
Unstratified	1B	Stone	1	419.4
Unstratified	1B	Brick	1	821.4

Other finds

Context No.	Area	Description	Quantity	Weight
004	1	Copper slag	-	37.2
004	1	Metal slag	-	1970.7
005	1B	Metal slag	1	8.5
103	2(ext)	Coal?	1	21.3
106	2(ext)	Flint core, probably Neolithic.	1	149.7

Appendix 4: Drawing register

Plans

Drawing	Date	Drawn	Scale	Shows
No.		by		
1	11/05/11	RL	1:10	Area 2 (first 1m x 1m).
2	12/05/11	HW	1:10	Area 1 (mid-ex).
3	17/05/11	HW & RL	1:20	Western half of vault roof. Post-excavation.
4	17/05/11	HW, RL & GMcA	1:20	Vault roof of ground fully uncovered. Post-excavation.

Section drawings

Drawing	Date	Drawn	Scale	Shows
No.		by		
1	12/05/11	RL	1:20	SW-facing. Shows contexts 1-8.
2	12/05/11	RL	1:20	NW-facing. Shows contexts 2, 3, 6-8.
3	12/05/11	RL	1:20	NE-facing. Shows contexts 2, 3, 6-8.
4	12/05/11	RL	1:20	SE-facing. Shows contexts 2-8.
5	12/05/11	HW	1:20	NW-facing. Shows contexts 3, 5-8.
6	13/05/11	GMcA	1:10	SE-facing. Shows contexts 3-5. 7.
7	16/05/11	GMcA	1:10	NW-facing. Shows contexts 3-5.

Profiles

Drawing	Date	Drawn	Scale	Shows
No.		by		
1	18/05/11	GMcA	1:20	N-S. Across haunch and crown of vault roof after post-excavation.

Appendix 5: Photographic Register

Photo No.	Description	Looking
MAY 10-11	South-west gable of Quoile Castle	North-east
(1)		
MAY 10-11	Working shot showing scaffolding and health & safety	East
(2) MAY 10-11	precautions General pre-excavation shot of Area 2	West
(3)	General pre-excavation shot of Area 2	Mesi
MAY 10-11	General pre-excavation shot of Area 2	North-west
(4)	Constant pro executation energy was a	
MAY 10-11	General pre-excavation shot	North-east
(5)	·	
MAY 10-11	Pre-excavation shot of south-west end of area of	West
(6)	excavation	
MAY 10-11	Pre-excavation shot of south-west end of area of	West
(7) MAY 10-11	excavation	Cauth
(8)	General pre-excavation shot	South
MAY 10-11	Gun loop to the south-east of Area 1	East
(9)	Curricop to the count cast of Alea 1	Last
MAY 10-11	Area 1 working shot	East
(10)		
MAY 10-11	Working shot – south-west end of Area 1	South-east
(11)		
MAY 10-11	General working shot of excavation area	North-east
(12) MAY 10-11	Marking abot of and d	Nouth cost
(13)	Working shot of area 1	North-east
MAY 10-11	Working shot of excavation	North-east
(14)	Working shot or executation	North Cast
MAY 10-11	Box trench in Area 2 before excavation	North-east
(15)		
MAY 10-11	Crown of vault supported by scaffolding	North-east
(16)		
MAY 10-11	Crown of vault supported by scaffolding	North-east
(17) MAY 10-11	Crown of vault supported by scaffolding	North-east
(18)	Crown or vault supported by scandiding	North-east
MAY 10-11	Area 2 after removal of C.2	North-east
(19)		
MAY 10-11	Area 1 during removal of C.2	East
(20)		
MAY 10-11	Area 1 during removal of C.2	East
(21)	Area 2 working abot	Nouth
MAY 10-11 (22)	Area 2 working shot	North
MAY 10-11	North-eastern end of Area 1 after removal of C.2	South-east
(23)	TOTAL GUOLOTT ONG OF ALCO TOTALOVALOT OF O.Z.	Codin cast
MAY 10-11	South-western end of Area 1 after removal of C.2	South-east
(24)		
MAY 10-11	Area 1 after removal of C.2	North-east
(25)		

MAY 10-11 (26)	Area 1 after removal of C.2	North-east
MAY 10-11 (27)	Gun loop	South-east
MAY 10-11 (28)	Area 1 after removal of C.2	North-east
MAY 10-11 (29)	South-western end of Area 1	Above
MAY 10-11 (30)	Area 2 working shot	North-east
MAY 10-11 (31)	Area 2 working shot	North-west
MAY 10-11 (32)	Burnt fill, western corner of Area 2	Above
MAY 10-11 (33)	Area 1, hole beginning to appear in the haunch of the vault	Above
MAY 10-11 (34)	Close-up of hole in the vault	Above
MAY 10-11 (35)	Area 2, showing vault stones appearing	Above
MAY 10-11 (36)	Area 2, showing vault stones appearing	Above
MAY 10-11 (37)	Area 2, showing vault stones	Above
MAY 10-11 (38)	Area 2, showing vault stones	Above
MAY 10-11 (39)	Area 2, showing vault stones	Above
MAY 10-11 (40)	Haunch of vault appearing in south-west end of Area 1	South east
MAY 10-11 (41)	Close up of vault stone in area 1	above
MAY 10-11 (42)	Crack in the roof of the vault	above
MAY 10-11 (43)	Area 1, stones of vault	North-east
MAY 13 (1)	Area 1, south-west end –haunch of vault C.7	Above
MAY 13 (2)	Area 1, south-west end – vault haunch (a)	Above
MAY 13 (3)	Area 1, south-west end – vault haunch (b)	Above
MAY 13 (4)	Area 1, south-west end – vault crown (c)	Above
MAY 13 (5)	Section through area 1 showing roof of vault C.7	South-east
MAY 13 (6)	C.7 meeting south-east gable of castle	South-east
MAY 13 (7)	Working shot of area 1 during removal of upper fills	South
MAY 13 (8)	General working shot of excavation area	North
MAY 13 (9)	Working shot of section through south-western end of Area 1	South-east
MAY 13 (10)	Area 1, C.7 and gun loop	South-east
MAY 13 (11)	Area 1, north-eastern end – crown and haunch of vault	North
MAY 13 (12)	Area 1, north-eastern end – crown and haunch of vault	North-west
MAY 13 (13)	Area 1, north-eastern end – crown and haunch of vault	North-west
MAY 13 (14)	Area 1, south-western end – crown and haunch of vault	North-west

MAY 13 (15)	Area 1, south-western end – crown and haunch of vault	North-west
MAY 13 (16)	Area 1, south-western end – crown and haunch of vault	North-west
MAY 13 (17)	North-east facing section through Area 1	South west
MAY 13 (18)	South-west facing section through Area 1 (north-western end)	North-east
MAY 13 (19)	South-west facing section through Area 1	North-east
MAY 13 (20)	General shot of Area 2 with extension	North
MAY 13 (21)	Concrete repairs to south-west gable of castle wall	South-west
MAY 13 (22)	Area 2 extension	South-west
MAY 13 (23)	Area 2 extension – C.7 appearing	above
MAY 13 (24)	Close up of crack running east-west across the vault roof	Above
MAY 13 (25)	Crack on vault roof	North-east
MAY 13 (26)	General shot of excavation area showing crack in the vault roof	North
MAY 13 (27)	Close up of crack in the vault roof	Above
MAY 16 (1)	Area 2 with extension showing C.7	South-west
MAY 16 (2)	Area 2 with extension showing C.7	South-west
MAY 16 (3)	Area 2 with extension showing C.7	North
MAY 16 (4)	C.7 - crown of vault and haunch of vault in Area 1	North-east
MAY 16 (5)	Roof of vault excavated	North-east
MAY 16 (6)	Roof of vault excavated	North-east
MAY 16 (7)	Crown of vault and north-western haunch	North-west
MAY 16 (8)	Crown of vault, north-eastern end	North-west
MAY 16 (9)	Crown of vault	North-east
MAY 16 (10)	North-western haunch of vault and crown	North-east
MAY 16 (11)	Roof of vault excavated	North-east
MAY 16 (12)	South-eastern haunch of vault and crown	North-east
MAY 16 (13)	Crown of vault	South
MAY 16 (14)	Close up of stones of south-western haunch of vault (C.7)	South-west
MAY 16 (15)	North-western haunch and crown of vault	South-west
MAY 16 (16)	Roof of vault	Above
MAY 16 (17)	South-eastern haunch of vault	South
MAY 16 (18)	North-western haunch of vault	South-west
MAY 18 (1)	Crown of vault showing crack in stonework	North-west
MAY 18 (2)	Crown of vault (south-western section)	North-west
MAY 18 (3)	Crown of vault (middle section)	North-west
MAY 18 (4)	Crown of vault (north-eastern section)	North-west
MAY 18 (5)	Crown of vault	North-west
MAY 18 (6)	South-eastern haunch of vault	North-east
MAY 18 (7)	Roof of vault	North-east
MAY 18 (8)	North-western haunch of vault	South-west
MAY 18 (9)	C.7 in Area 2	-
MAY 18 (10)	Roof of vault	South
MAY 18 (11)	North-western haunch of vault	South
MAY 18 (12)	Haunch of vault meeting south-east gable; gun loop	South-east
MAY 18 (13)	South-eastern haunch of vault	North-east
MAY 18 (14)	East corner showing corner stone and modern concrete floor level	East
MAY 18 (15)	C.7 – roof of vault,	North

MAY 18 (16)	Collapsed section of south-east gable	South-east
MAY 18 (17)	C.7 – roof of vault	-
MAY 18 (18)	Staircase	North-west
MAY 18 (19)	Murder hole	-
MAY 18 (20)	North-east gable of Quoile Castle taken from courtyard	West
MAY 18 (21)	South-east gable of Quoile Castle	North-west
MAY 18 (22)	Southern corner of Quoile Castle taken from carpark	North
MAY 18 (23)	South-west gable of Quoile Castle	North-east
MAY 18 (24)	Western corner of Quoile Castle	East
MAY 18 (25)	Western corner of Quoile Castle taken from Quay	East
. ,	Road	
MAY 18 (26)	Quoile Castle taken from Quay Road	North-east
MAY 19 (1)	Doorway	South-west
MAY 19 (2)	Murder hole above doorway	-
MAY 19 (3)	Staircase leading to 1 st floor	North-west
MAY 19 (4)	Staircase leading to 1 st floor	North-west
MAY 19 (5)	Doorway into vault	South-west
MAY 19 (6)	North-east gable wall	West
MAY 19 (7)	1 st floor stairwell	North-west
MAY 19 (8)	1 st floor stairwell	North-east
MAY 19 (9)	General shot of 1 st floor	North-east
MAY 19 (10)	General shot of 1 st floor	South-west
MAY 19 (11)	1 st floor gun loop in south-western gable	South-west
MAY 19 (12)	Doorway to stairwell leading to the 2 nd floor	North-west
MAY 19 (13)	Window in north-western gable wall	North-west
MAY 19 (14)	Staircase leading to 2 nd floor	North-east
MAY 19 (15)	Staircase leading to 2 nd floor	North-east
MAY 19 (16)	View of 1 st floor excavation taken from 2 nd floor	-
MAY 19 (17)	View of 1 st floor excavation taken from 2 nd floor	-
MAY 19 (18)	View of 1 st floor excavation taken from 2 nd floor	-
MAY 19 (19)	North-western gable wall taken from 2 nd floor	North-west
MAY 19 (20)	Remains of 2 nd floor	North
MAY 19 (21)	Close up of window	-
MAY 19 (22)	Crown of vault (supported by scaffolding)	North-east
MAY 19 (23)	General shot of building	North
MAY 19 (24)	General shot of south-west gable	North-east
MAY 19 (25)	General shot of building taken from the car park	North
MAY 19 (26)	General shot of building taken from the car park	North
MAY 19 (27)	General shot of building	North-west
MAY 19 (28)	General shot of building	North-west
MAY 19 (29)	General shot of building	South
MAY 19 (30)	South-western gable wall of building	East
MAY 19 (31)	Western corner of building	East
MAY 19 (32)	South-west gable wall	South-east
MAY 19 (33)	North-east gable wall	South-west
MAY 19 (34)	General shot of building	North-east
MAY 19 (35)	Interior of vault	-
MAY 19 (36)	Interior of vault	-
MAY 19 (37)	Interior of vault	-
MAY 19 (38)	Interior of vault	_
MAY 19 (39)	Interior of vault	_
MAY 19 (40)	Interior of vault	_
1VIA 1 13 (40)	IIIIOIOI OI Vault	_

MAY 19 (41)	Interior of vault	-
MAY 19 (42)	Interior of vault	-
MAY 19 (43)	Interior of vault	-
MAY 19 (44)	Interior eastern corner of building showing	North-east
	cornerstones and modern concrete floor	
MAY 19 (45)	Interior eastern corner of building showing	South-east
	cornerstones and gun loop	
MAY 19 (46)	Interior eastern corner of building showing	South-east
	cornerstones and gun loop	
MAY 19 (47)	Interior of south-east gable wall showing modern	South-east
	concrete floor	
MAY 19 (48)	Interior eastern corner of building showing	South-east
	cornerstones and gun loop	
MAY 19 (49)	Interior southern corner of building	South-west
MAY 19 (50)	Interior southern corner of building showing level of	South-east
	modern concrete floor	
MAY 19 (51)	South-east haunch of vault at north-east gable wall	North-east
MAY 19 (52)	Gun loop in south-east gable wall	South-east
MAY 19 (53)	Gun loop in south-east gable wall	South-east
MAY 19 (54)	South-east haunch of vault	North-east
MAY 19 (55)	Interior of south-west gable wall at the southern limit of	West
	excavation	
MAY 19 (56)	Crown of vault and modern concrete floor level against	North-east
	north-east gable wall	
MAY 19 (57)	Crown and south-east haunch of vault	North-east
MAY 19 (58)	General shot of north-west haunch of vault	North
MAY 19 (59)	Window in north-eastern gable of wall	North-east
MAY 19 (60)	Window in north-eastern gable of wall	North
MAY 19 (61)	Post-excavation shot	North